

SCIENCE+HEALTH BUILDING

NORTHERN ARIZONA UNIVERSITY

LOCATION

FLAGSTAFF | ARIZONA

COMPLETED

SEPTEMBER 2015

CONCEPT

The Science + Health Building serves as a pivotal scientific center of excellence for Northern Arizona University. The building form and materials are inspired by the chemical process of crystalline formation within a geode - a spherical rock formation containing a hollow cavity lined with crystals.

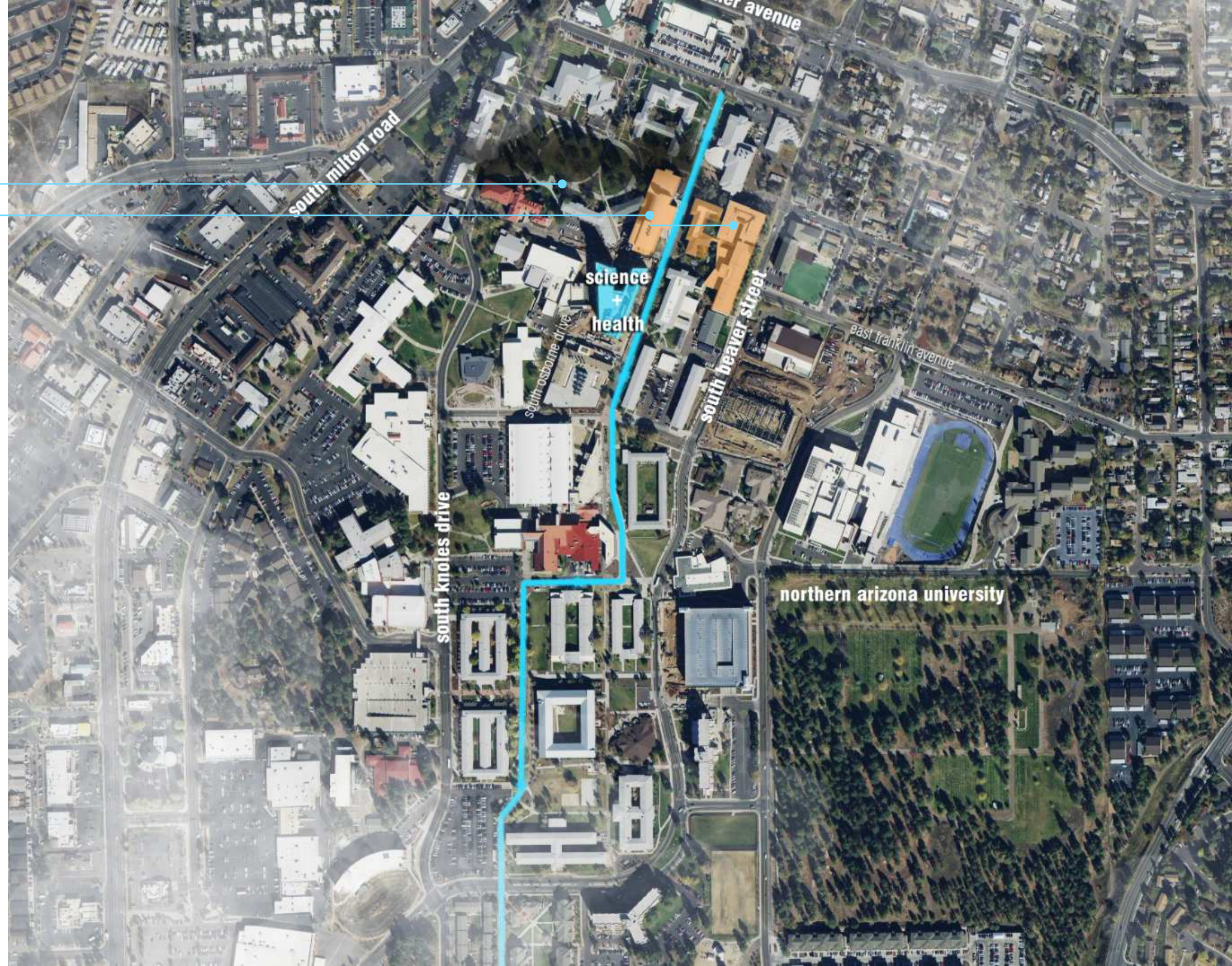




CONTEXT

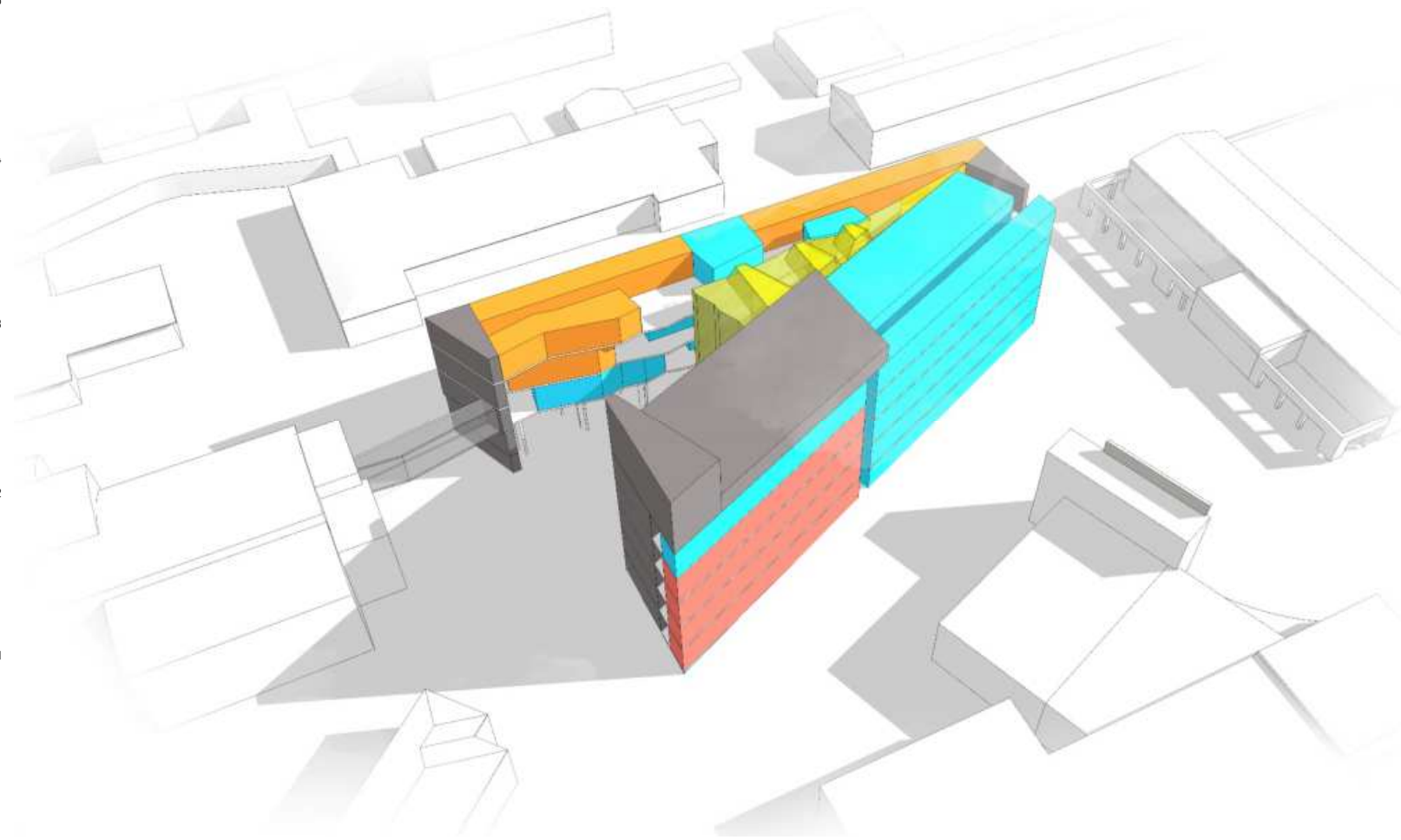
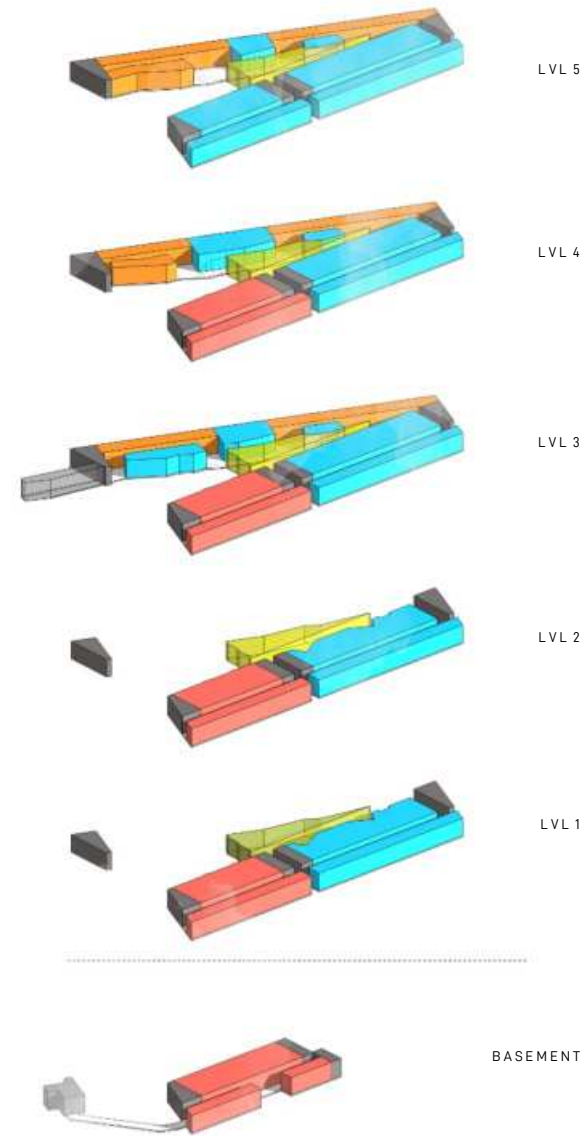
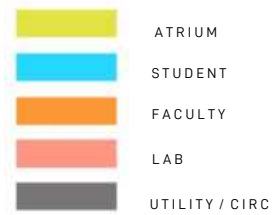
The building site is at a key juncture between the primary north-south pedestrian axis, and the original historic quad. Reinforcing this connection was critical in the development of the project.

HISTORIC QUAD
SCIENCE COMPLEX



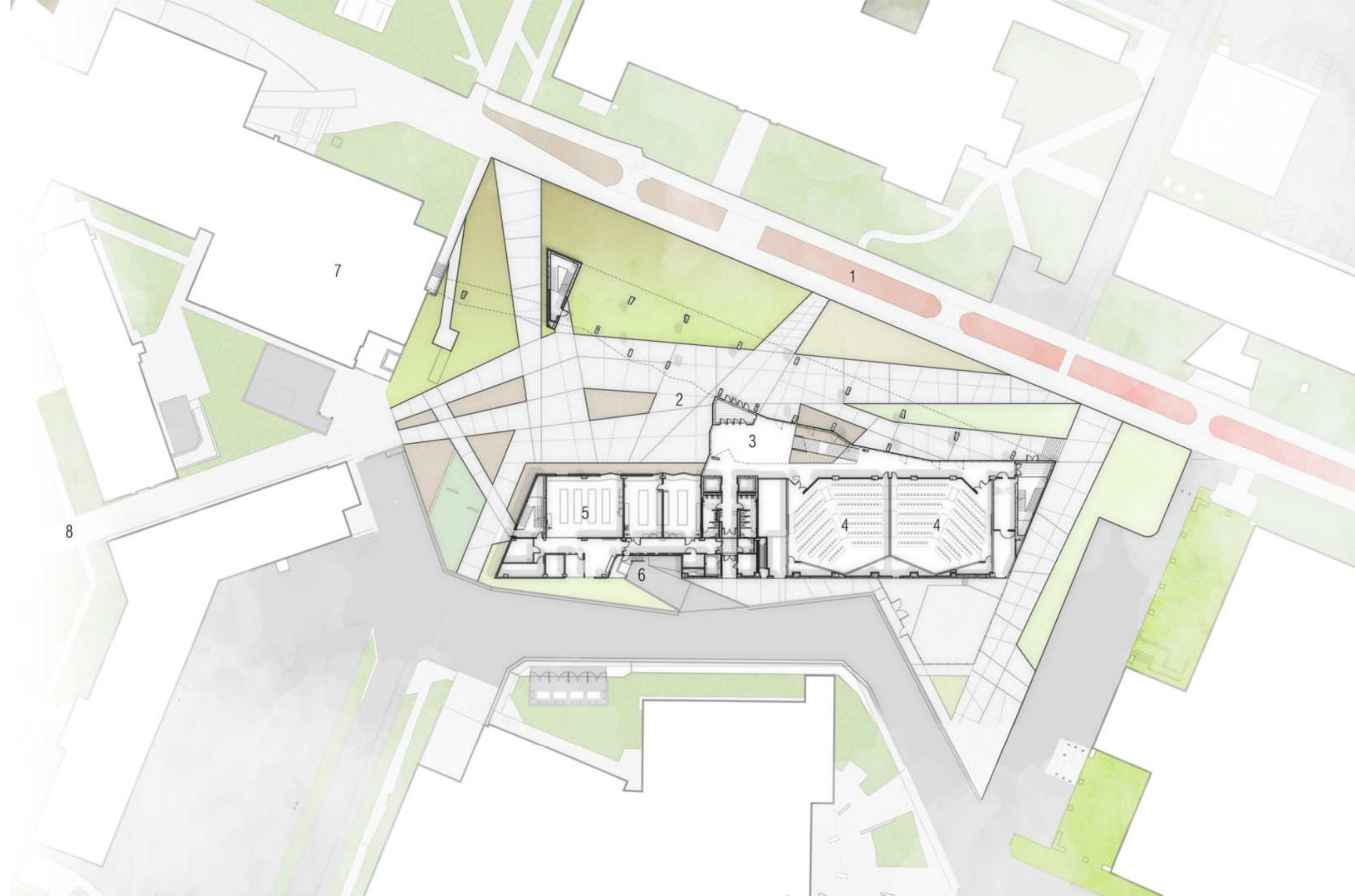
PROGRAM

The design is an open, flexible mixture of spaces to support the academic and research mission of the university. The building houses departmental offices, lecture halls, classrooms, teaching labs, research labs and a new central chemical distribution facility for the north campus science complex. A multi-level atrium connects open interaction spaces, group study rooms, faculty and graduate student spaces, and learning spaces

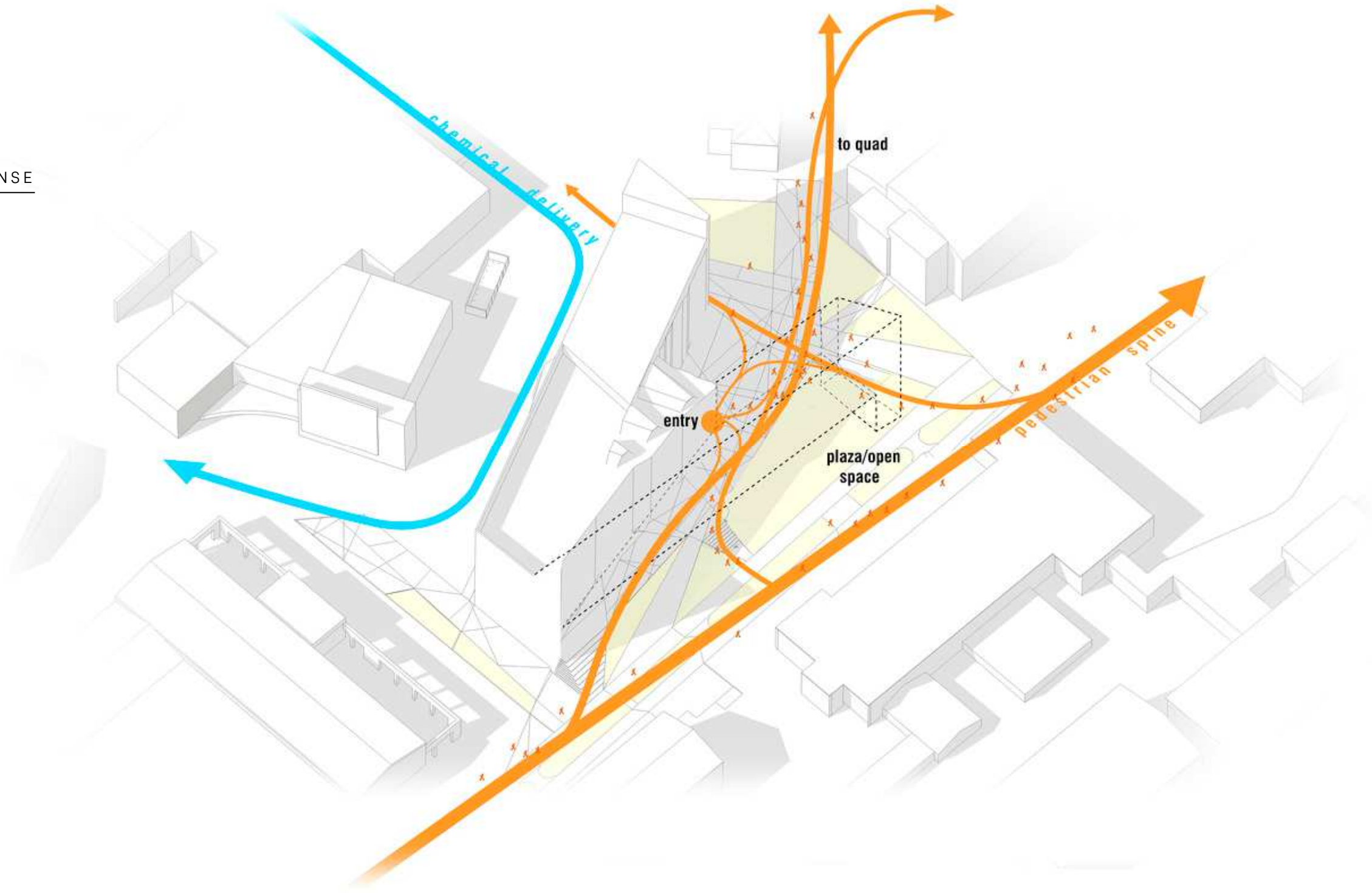


SITE PLAN

1. pedestrian spine
2. plaza
3. entry | atrium
4. lecture hall
5. chemical storage
6. loading dock
7. existing science building
8. historic quad



URBAN RESPONSE



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The building responds to its unique site by lifting the eastern wing of the building two stories, allowing pedestrian connections between the pedestrian spine and historic quad, while knitting the new building into the campus context.



SKIN

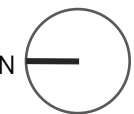
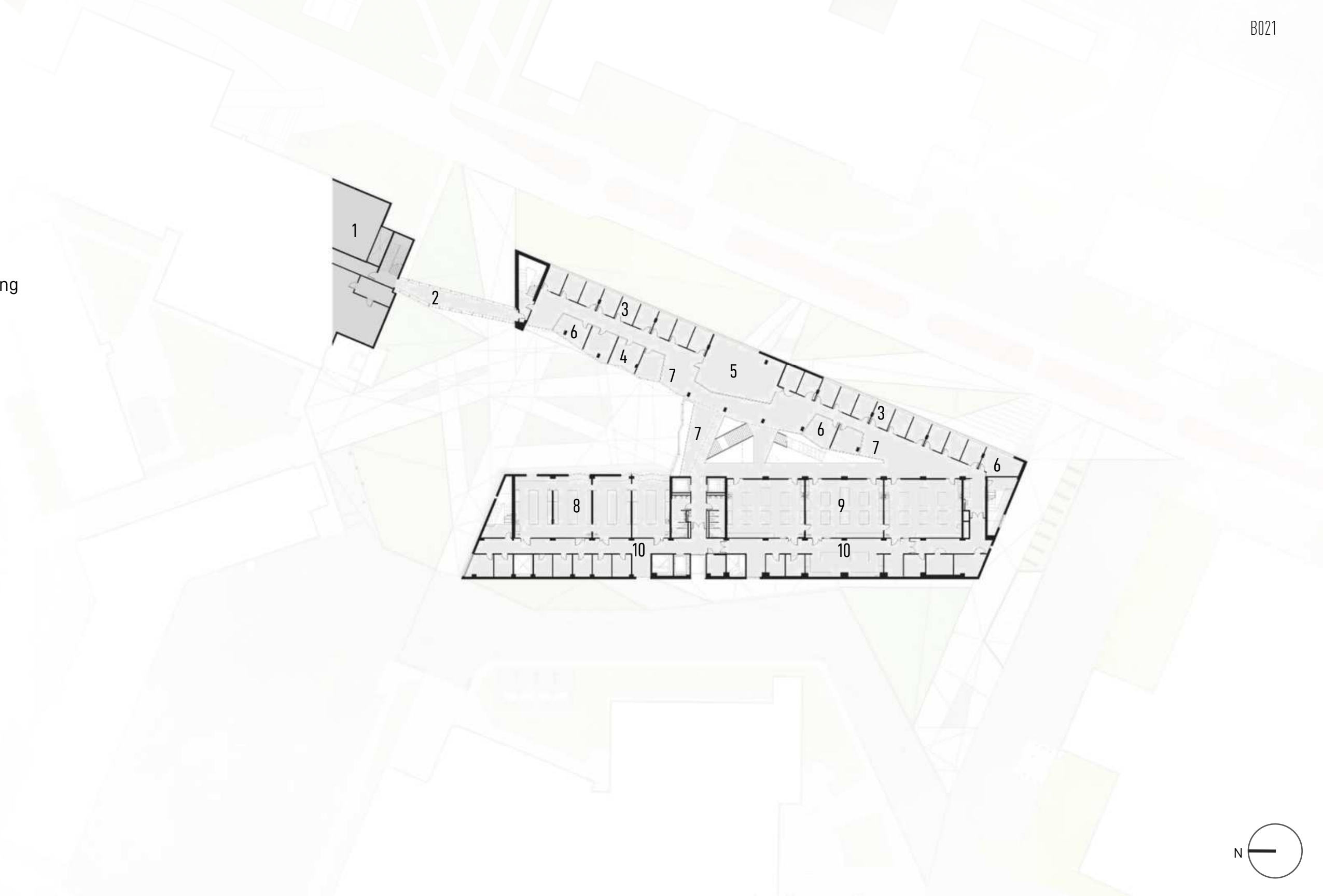
Thirteen different shaped aluminum composite material panels were hung on a custom rain screen system, composed on each elevation to reflect the surrounding rugged rock bluffs of northern Arizona.





TYPICAL FLOOR PLAN

- 1. existing chemistry building
- 2. elevated bridge
- 3. faculty offices
- 4. grad student offices
- 5. classroom
- 6. meeting
- 7. collaboration
- 8. research lab
- 9. teaching lab
- 10. lab support



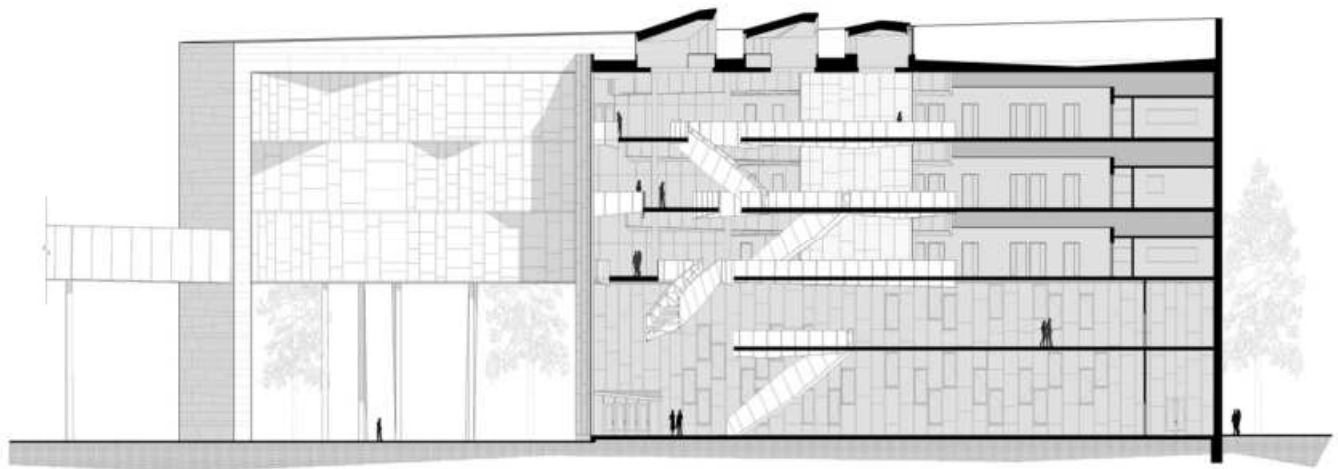
ENTRY PLAZA

The building splits at the entry plaza, defined by an 85' folded curtain wall that opens up to northern views of the San Francisco Peaks and provides an interior/exterior connection at every level.



ATRIUM

Stepping through the entry brings you into a light filled 5-story atrium with crystalline stair formations wrapped in frosted acrylic hung from each level.



COLLABORATION

Angular stairs bring occupants up, level by level, past open interaction spaces, glass-clad meeting rooms, offices, and classrooms.





LECTURE HALL

Tiered lecture halls support pedagogy of collaborative/lecture learning with two rows of tables at each tier allowing for both face forward lecture and small group interaction.





TEACHING LAB

The building features an open flexible research platform including research and teaching laboratories in ideal adjacencies minimizing demands on researchers and faculty. Multi-disciplinary research including biochemistry, physical chemistry, organic chemistry, and environmental chemistry required in-depth blocking and stacking analysis to organize required utilities and maximize chemical storage while meeting strict building codes for hazardous materials use and storage.



RESEARCH LAB

Flexible research labs with movable, modular casework and open overhead utility services allows for long-term flexibility to adapt, and meet changing needs. Integrating natural light into research and learning environments was crucial to the design.



SYSTEMS

The rooftop mechanical penthouse is integrated into the form of the building, encapsulating building system equipment, smoke evacuation system for the atrium, and large exhaust fans and stacks required for the high number of fume hoods.



SCALE

The exterior cladding color was selected to tie the building to the surrounding brick structures.

An artful composition of operable panels was designed to accommodate the outside air intake requirements of the atrium smoke evacuation system. Each is a narrow stile aluminum door with a reverse closer and a magnetic release tied to the alarm system.



