

Bothell STEM 4 —

Cascadia College | University of Washington Bothell

LEWIS | MITHUN

UWAC Meeting

April 27, 2020

Goals and Process—

Project Goals—



UWB | CC MEMORANDUM OF UNDERSTANDING

- Create **learning environments** that support **collaboration, active learning, and faculty innovation** while **building community** across students and faculty.
- **Maximize space for instruction and research** in a manner consistent with program goals and institutional standards and values.
- Design a physical environment that **promotes interactions between UWB and CC faculty, staff, and students.**
- **Display** the campus' commitment to **environmental and economic sustainability**, including by seeking to **minimizing building life-cycle costs and carbon footprint.**
- **Redistribute STEM facilities** across the campus as appropriate to **improve operational efficacy, student access and relationships.**

BOTHELL CAMPUS MASTER PLAN



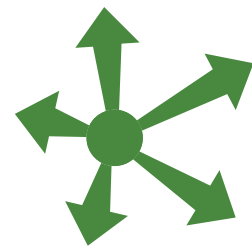
CAMPUS MASTER PLAN GUIDING PRINCIPLES

The Guiding Principles identify a shared vision for actions and outcomes that meet multiple objectives to ensure that land use and capital investment decisions support the institutional missions of UW Bothell and Cascadia College. They were developed to guide both the planning process and implementation of the Campus Master Plan and are organized into six categories:



GUIDING PRINCIPLE NO. 1: COHESIVE CAMPUS CHARACTER

The physical setting of the campus expresses the institutional values and commitment to educational excellence with regard to contextual integration within the surrounding community and region. The architectural expression of buildings, landscapes, and circulation patterns should be context-driven to enhance the character and quality of the campus while retaining the identity of each institution and providing a welcoming and user-friendly experience for first-time and daily users.



GUIDING PRINCIPLE NO. 2: DURABLE AND ADAPTABLE FACILITIES

Ongoing demands to maximize the versatility of space must be considered in the design of academic buildings to meet evolving program needs. Buildings should be designed with flexible interiors to allow for the reconfiguration of space over time without major structural or utility modifications, and infrastructure should be provided to meet current and future technology needs.



GUIDING PRINCIPLE NO. 3: ENRICHED CAMPUS COMMUNITY EXPERIENCE

Providing a vibrant, student-centered campus with ease of access and amenities that encourage the interdisciplinary exchange of ideas and discovery is vital to achieving academic excellence. Maximizing resources and co-location opportunities to meet the needs of commuting and residential students through inclusiveness and equity will enrich the student experience. Providing resources and co-location opportunities for faculty and staff to socially and academically interact with each other and with students will help enhance a culture of learning, innovation and partnership.



GUIDING PRINCIPLE NO. 4: ENHANCED ENVIRONMENTAL AND HUMAN HEALTH

The commitment of both UW Bothell and Cascadia College to environmental protection, sustainability, and the well-being of students, staff, faculty, and the surrounding community is integral to the Campus Master Plan. Energy conservation, natural daylight and ventilation, efficient use of resources, preservation of environmentally valuable features, and a mix of vibrant and passive open spaces are all means of enhancing the environmental and human health of campus and community. The campus' environmental resources and critical habitats will continue to be managed in a manner that promotes academic, research, and partnership opportunities for UW Bothell, Cascadia College, and the community-at-large.



GUIDING PRINCIPLE NO. 5: INTEGRATION WITH THE CITY OF BOTHELL

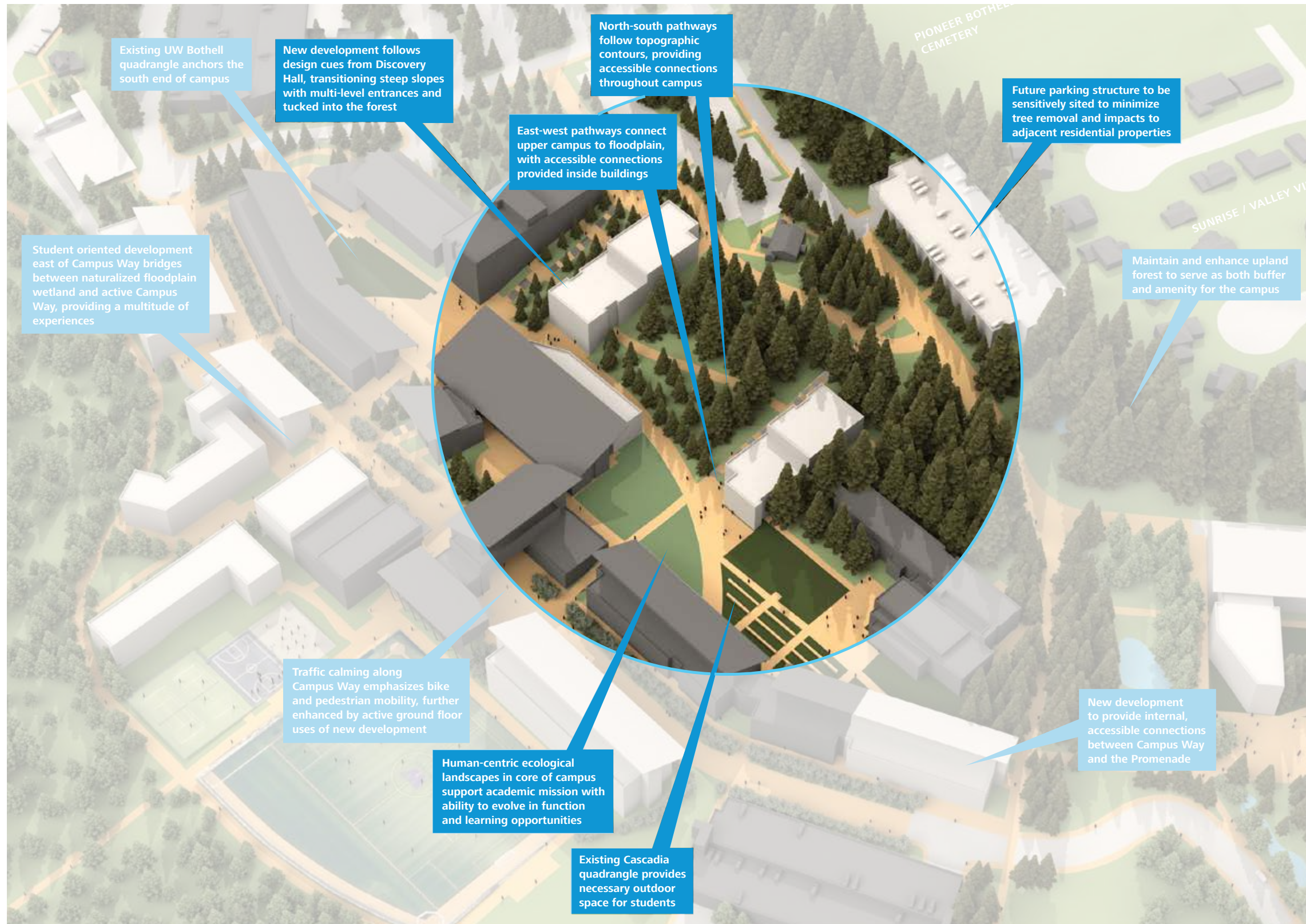
Considerations for enrollment growth of UW Bothell and Cascadia College and the physical development of the campus to meet space needs require close collaboration and connectivity with the City of Bothell's long-range vision. Development along the edges of campus should acknowledge, and where appropriate, complement adjacent uses relative to scale and proximity. Pedestrian and bicycle connections between the campus and downtown core should continue to be strengthened.



GUIDING PRINCIPLE NO. 6: MOBILITY, ACCESS, AND SAFETY

Safe, efficient, and effective movement of people and vehicles (including personal, service, emergency and transit) to and through campus requires regular monitoring and management. Sufficient and appropriately located parking, transit connectivity, universally accessible pathways, and intentionally designed intersections and crossings are necessary both on and off campus, requiring close collaboration with the City of Bothell and local transit agencies.

CAMPUS CORE



CAMPUS MASTER PLAN

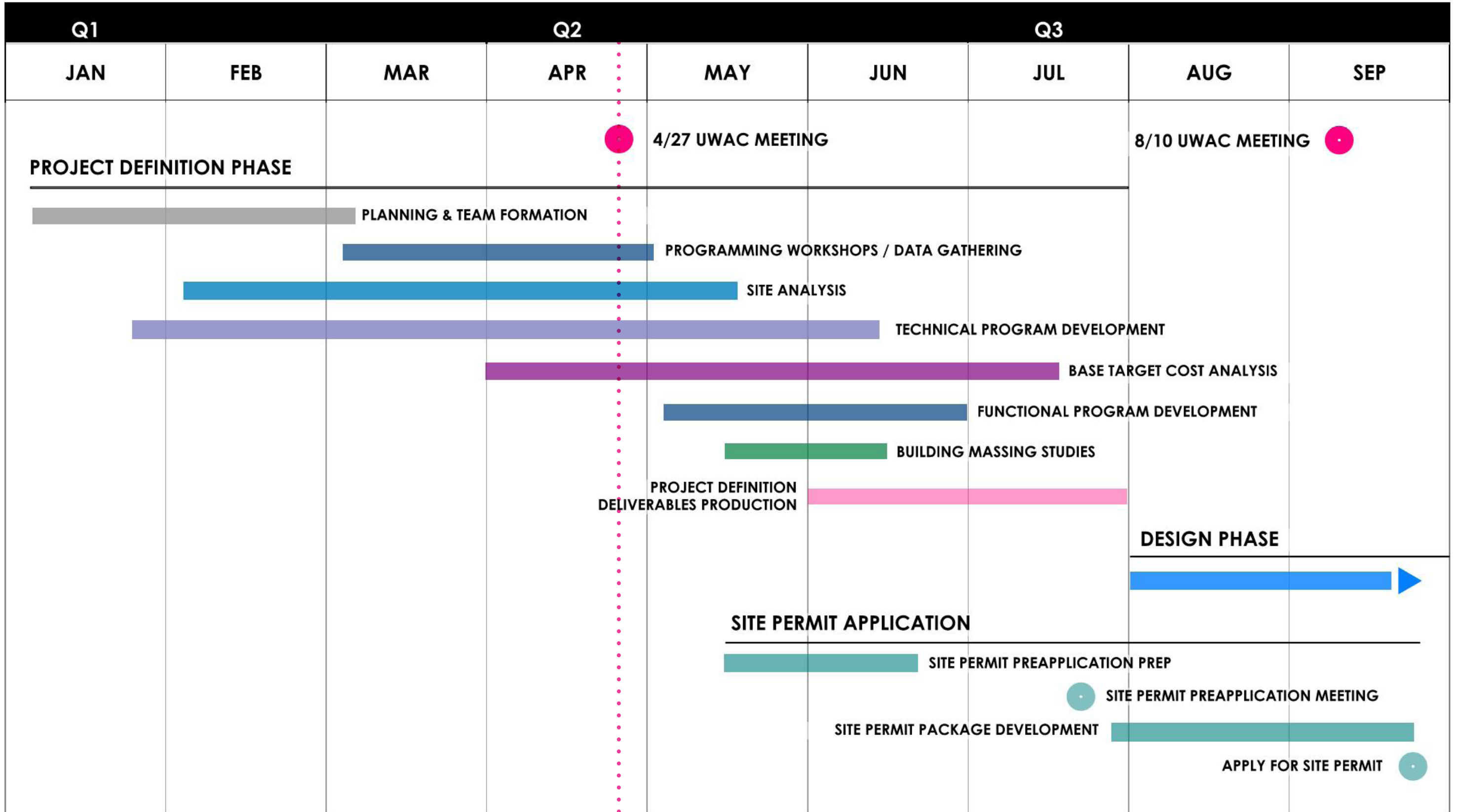
- Minimize tree removal
- Provide accessible N/S connections
- Create E/W connections, upper campus to flood plain
- Follow design cues of Discovery Hall
- Respect Cascadia Quad

Process—



PROJECT DEFINITION PHASE

2020



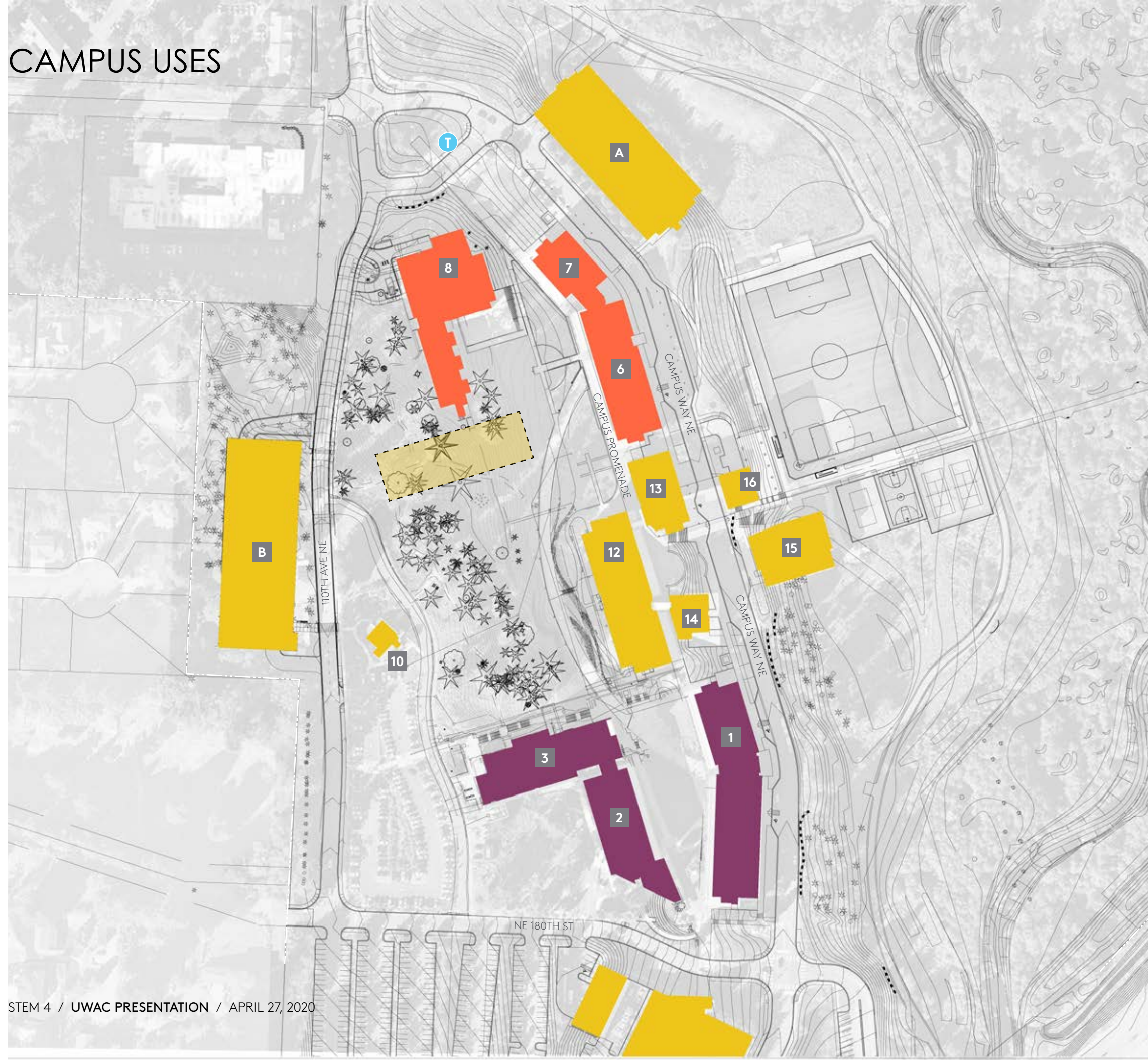
Threads—

one

Learning Environments—



CAMPUS USES



KEYNOTES

UW BOTHELL FACILITIES (EXISTING)

- 1 UW1 (FOUNDERS HALL)
- 2 UW2 (COMMONS HALL)
- 3 UW3 (DISCOVERY HALL)

CASCADIA COLLEGE FACILITIES (EXISTING)

- 6 CC1
- 7 CC2
- 8 CC3

SHARED FACILITIES (EXISTING)

- 10 TRULY RANCH HOUSE
- 12 LIBRARY 1
- 13 LIBRARY 2
- 14 LIBRARY ANNEX
- 15 ACTIVITY + RECREATION CENTER (ARC)
- 16 NORTH CREEK EVENT CENTER

SHARED STRUCTURED PARKING

- A NORTH PARKING GARAGE
- B 110TH PARKING GARAGE (UNDER CONSTRUCTION)

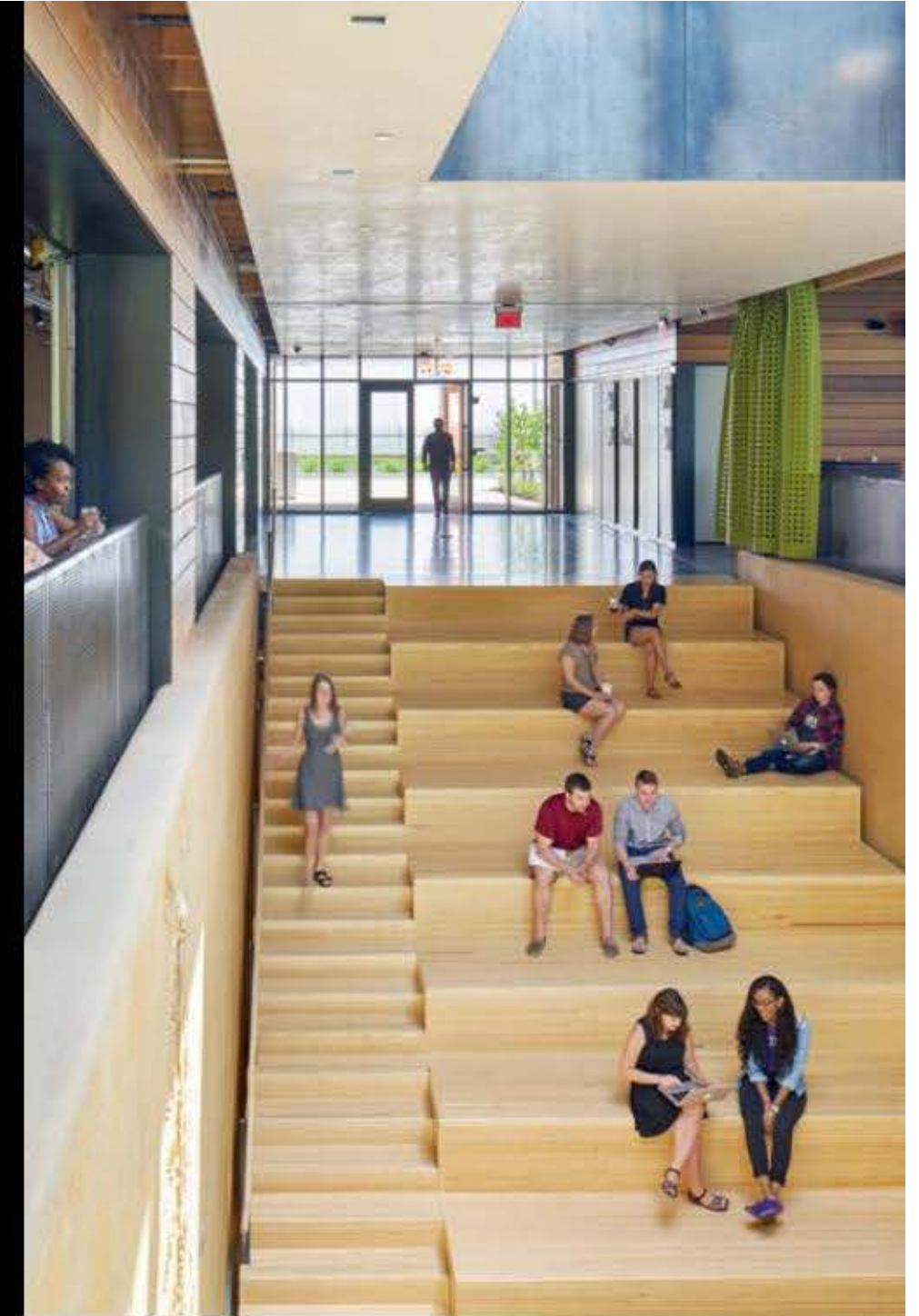
- T TRANSIT CENTER



Theory

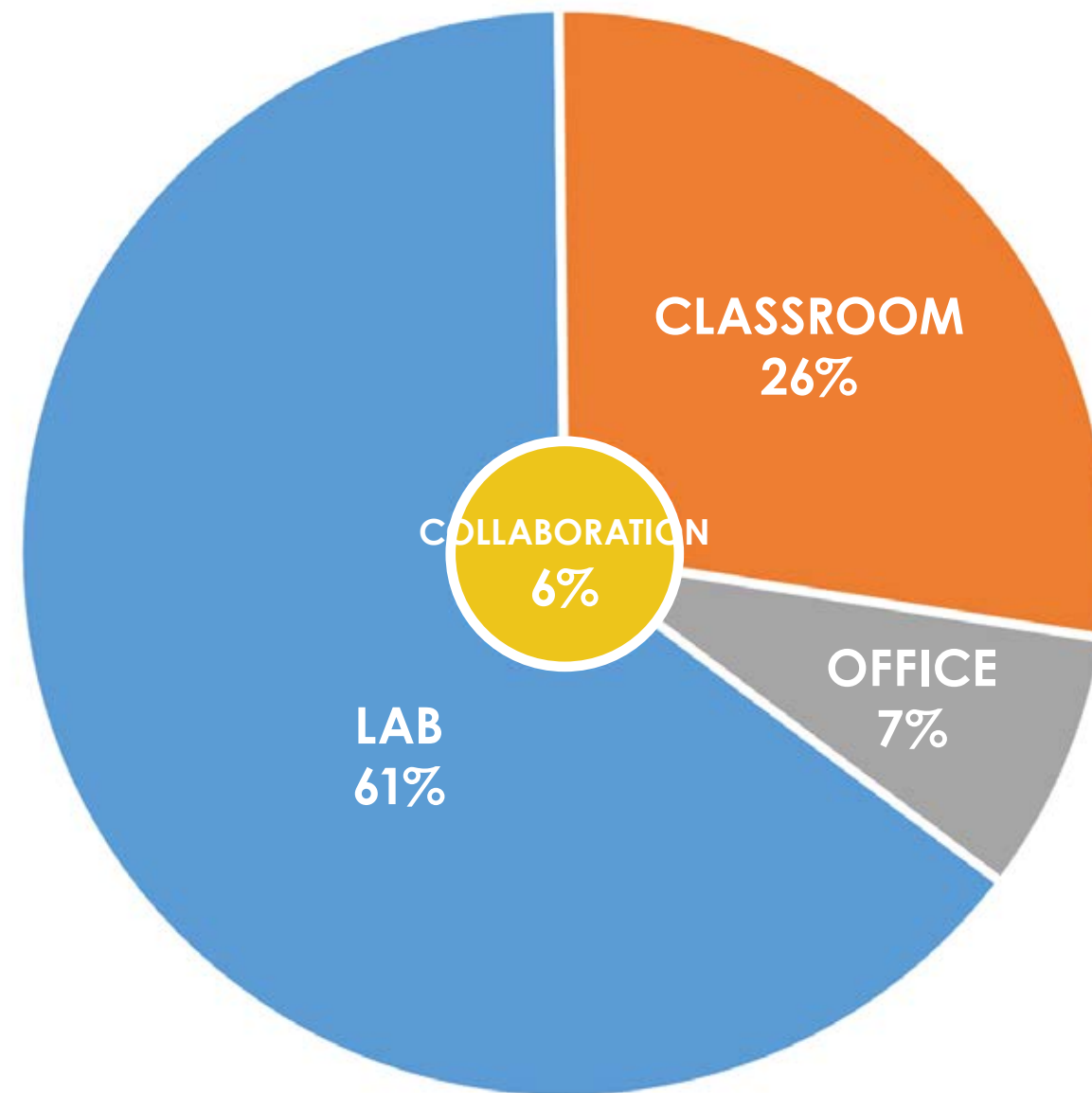


Practice

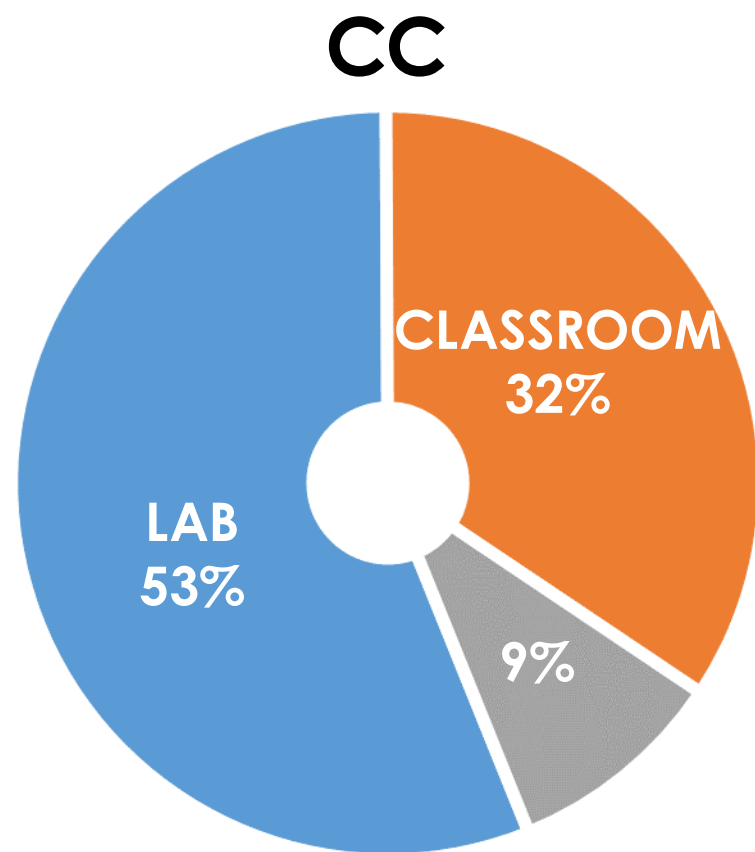


Connect

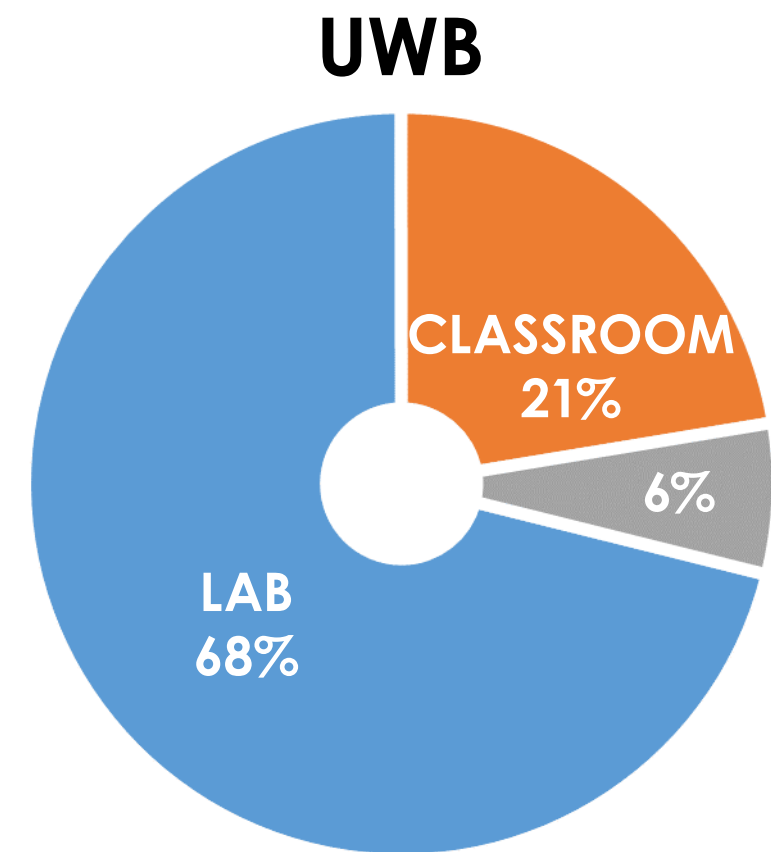
DRAFT BUILDING PROGRAM



COMBINED



CC



UWB

DRAFT BUILDING PROGRAM

UNIVERSITY OF WASHINGTON

ELECTRICAL ENGINEERING

- Teaching Labs
- Capstone Lab
- Research Labs

MECHANICAL ENGINEERING

- Teaching Labs
- Capstone Lab
- Research Labs
- Machine Shop

COMPUTER SCIENCE

- Computer Labs
- Research Lab
- Capstone Lab

GENERAL

- Classrooms
- Career Connected Learning Studio
- Faculty Offices

CASCADIA COLLEGE

PHYSICS & ENGINEERING

- Physics Labs
- Engineering Labs

BUSINESS INFORMATION TECHNOLOGY & COMPUTER SCIENCE

- Computer Programming Lab
- Network Lab

CHEMISTRY

- General Chemistry Labs
- Organic Chemistry Lab

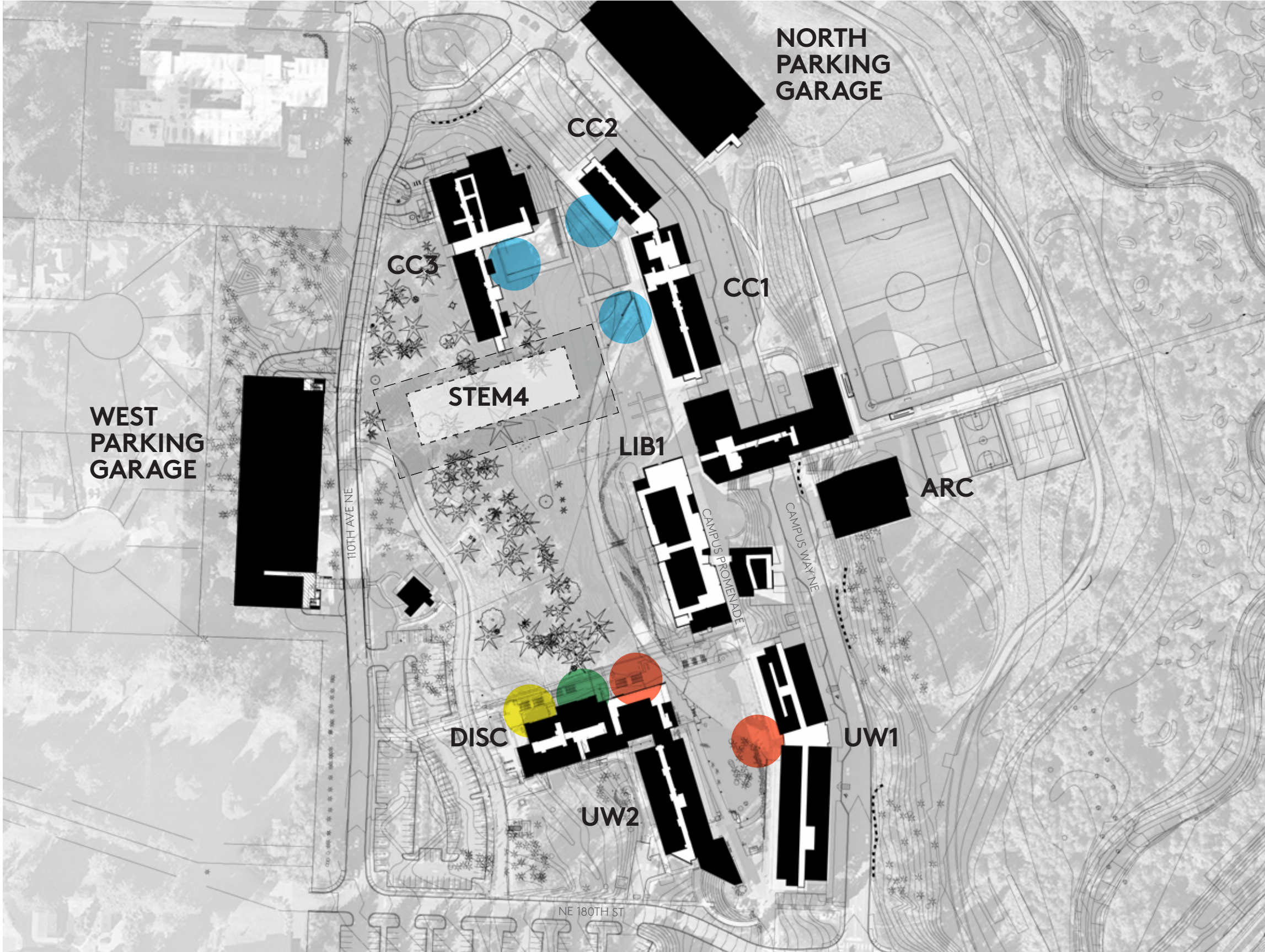
GENERAL

- Classrooms
- Interdisciplinary Project Studio
- Offices

SHARED

- Informal Student Study
- Faculty Work Rooms

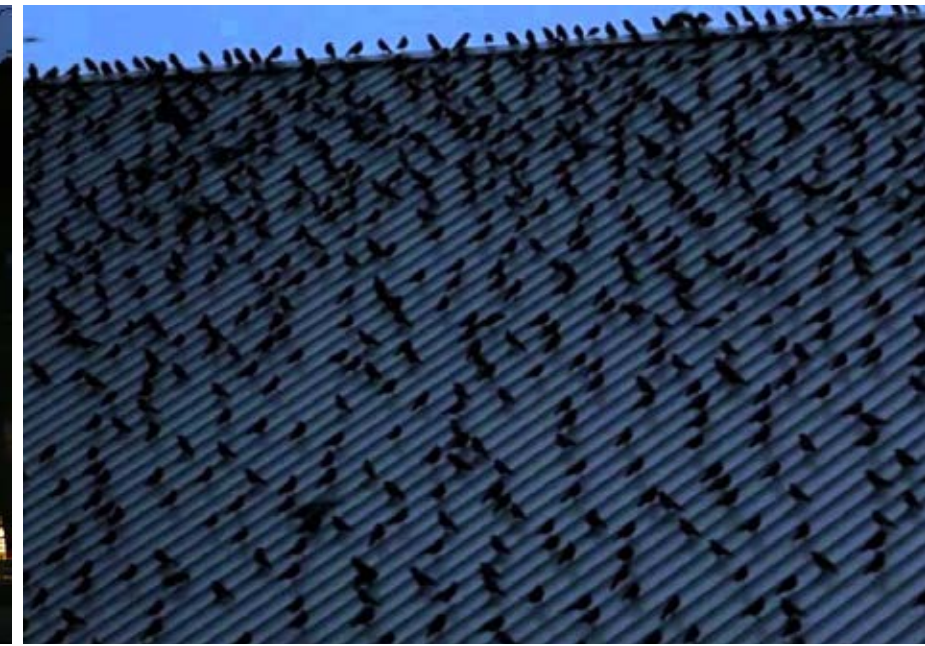
STEM PROGRAMS DISTRIBUTION



LEGEND

- CC - STEM
- UWB - EE
- UWB - ME
- UWB - CSS





SITE PROGRAM

EXPERIENCE

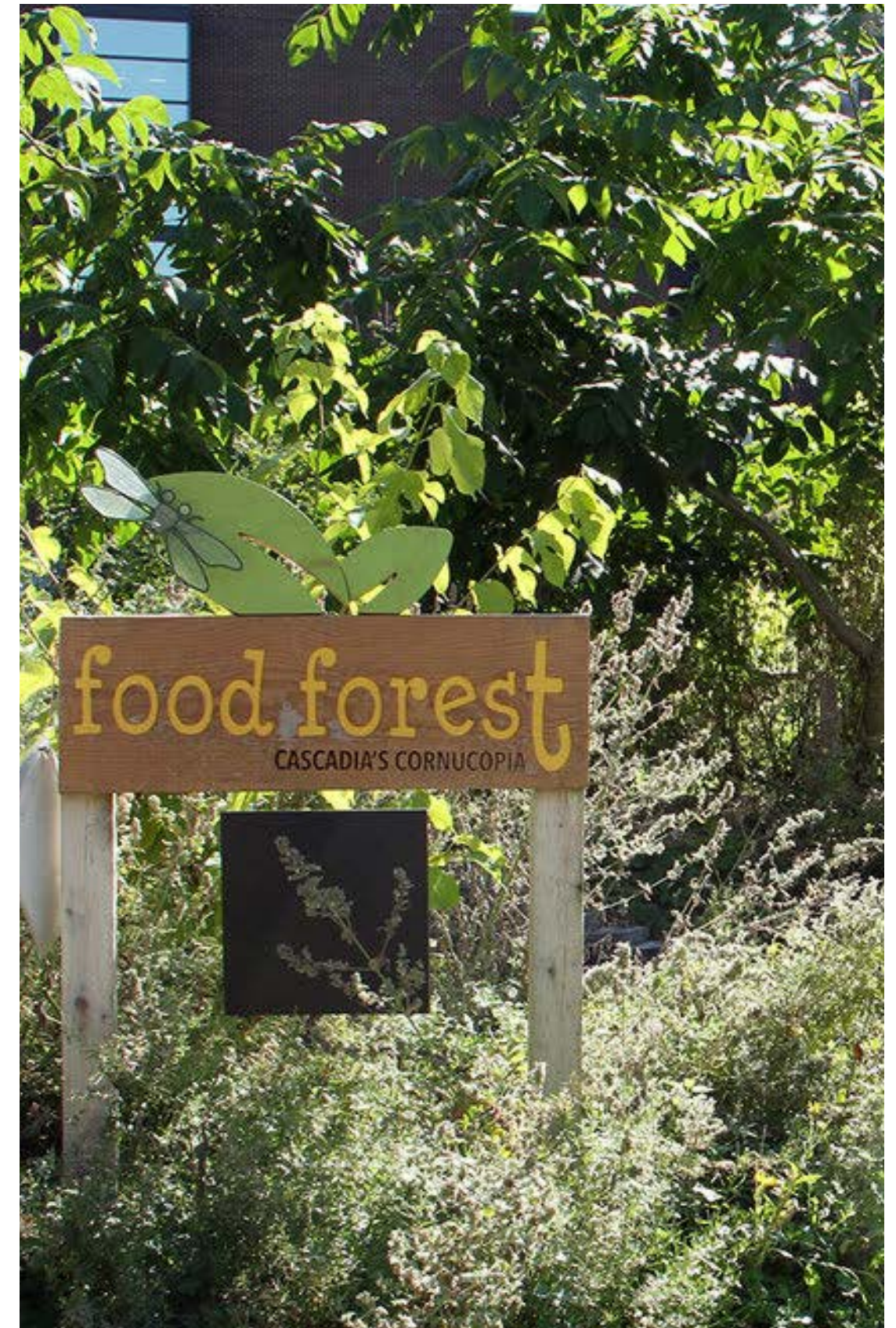
- Retain existing amenities
 - CC-3 lawn
 - Food Forest
- Promote connection to nature
- Create places for social interaction

EDUCATION

- Create opportunities for collaboration
- Integrate learning opportunities into the landscape
 - Concentrate site features for learning
 - Support field research, forest research, soil ecology classes
 - Make rainwater conservation visible, put raingardens on display
- Outdoor space for mechanical engineering shop

SUPPORT

- Loading and service
- Accessible parking



ECOLOGICAL ZONES AND CAMPUS DEVELOPMENT

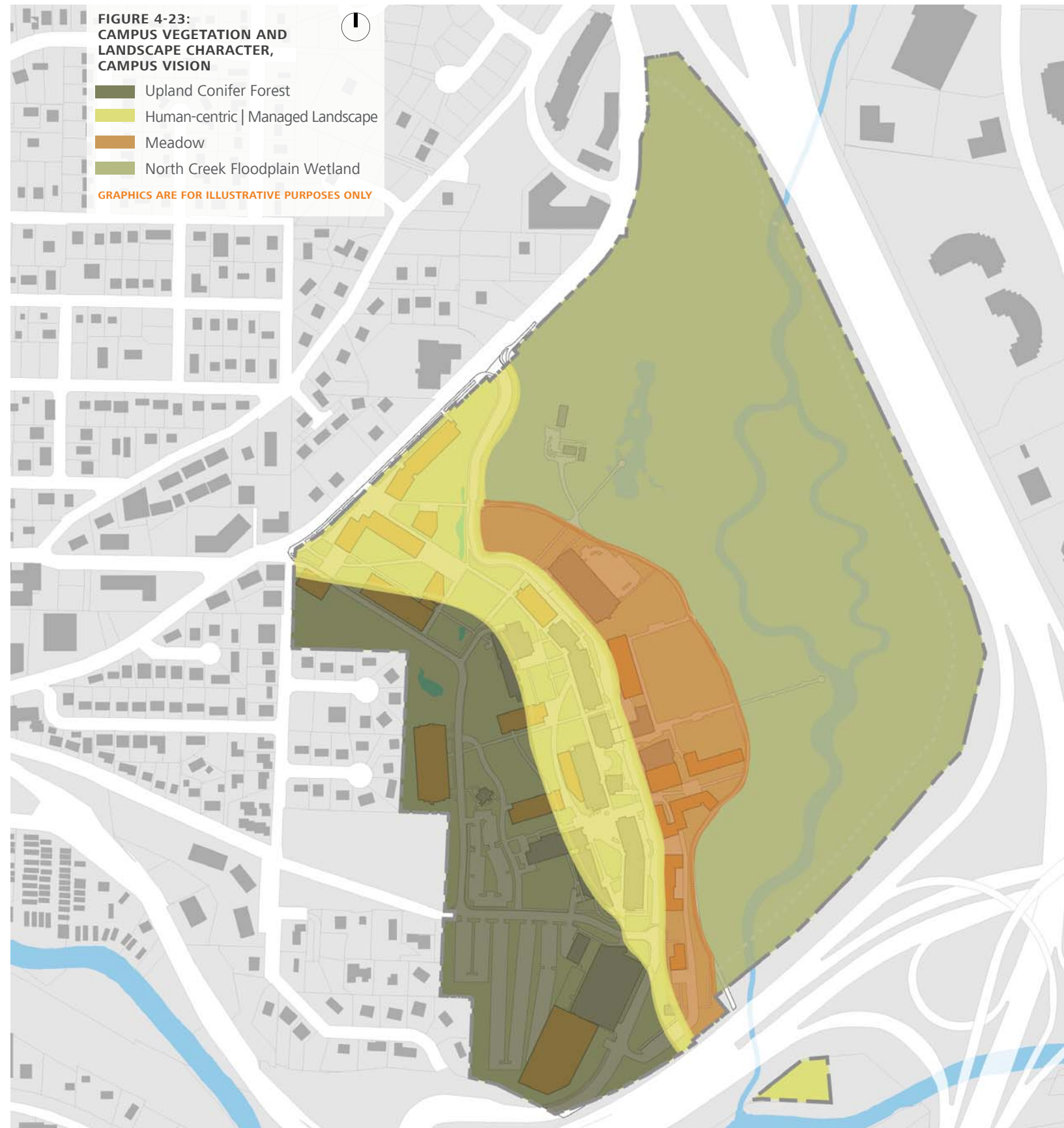


GOALS

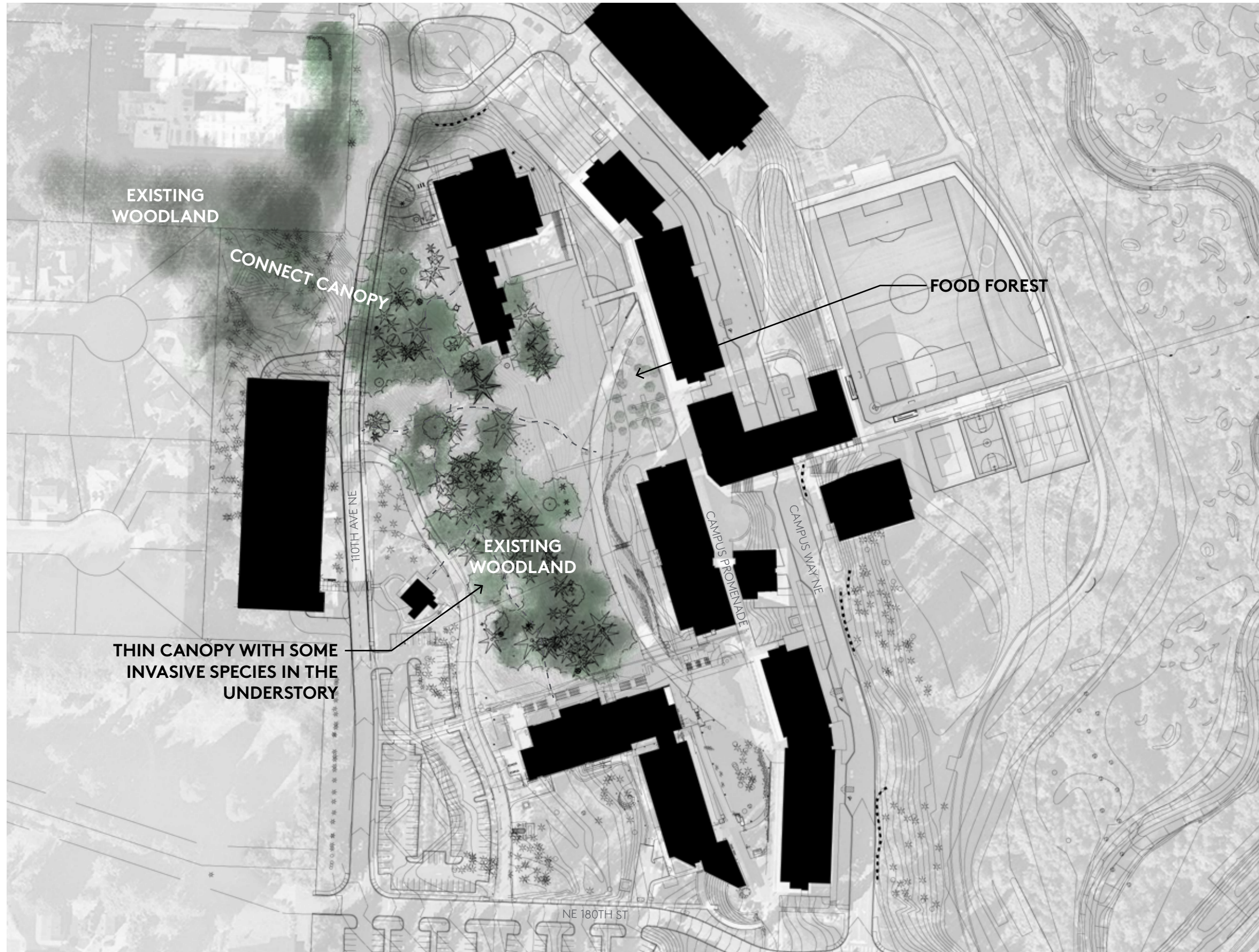
UPLAND CONIFER FOREST

- ‘Heal in” or restoration of the naturalized landscapes post development
- Restore understory to a more native condition
- Strengthen concept of a campus in the woods

LANDSCAPE VEGETATION AND CHARACTER



SITE CONDITIONS



CAMPUS OBSERVATIONS UPLAND CONIFER FOREST

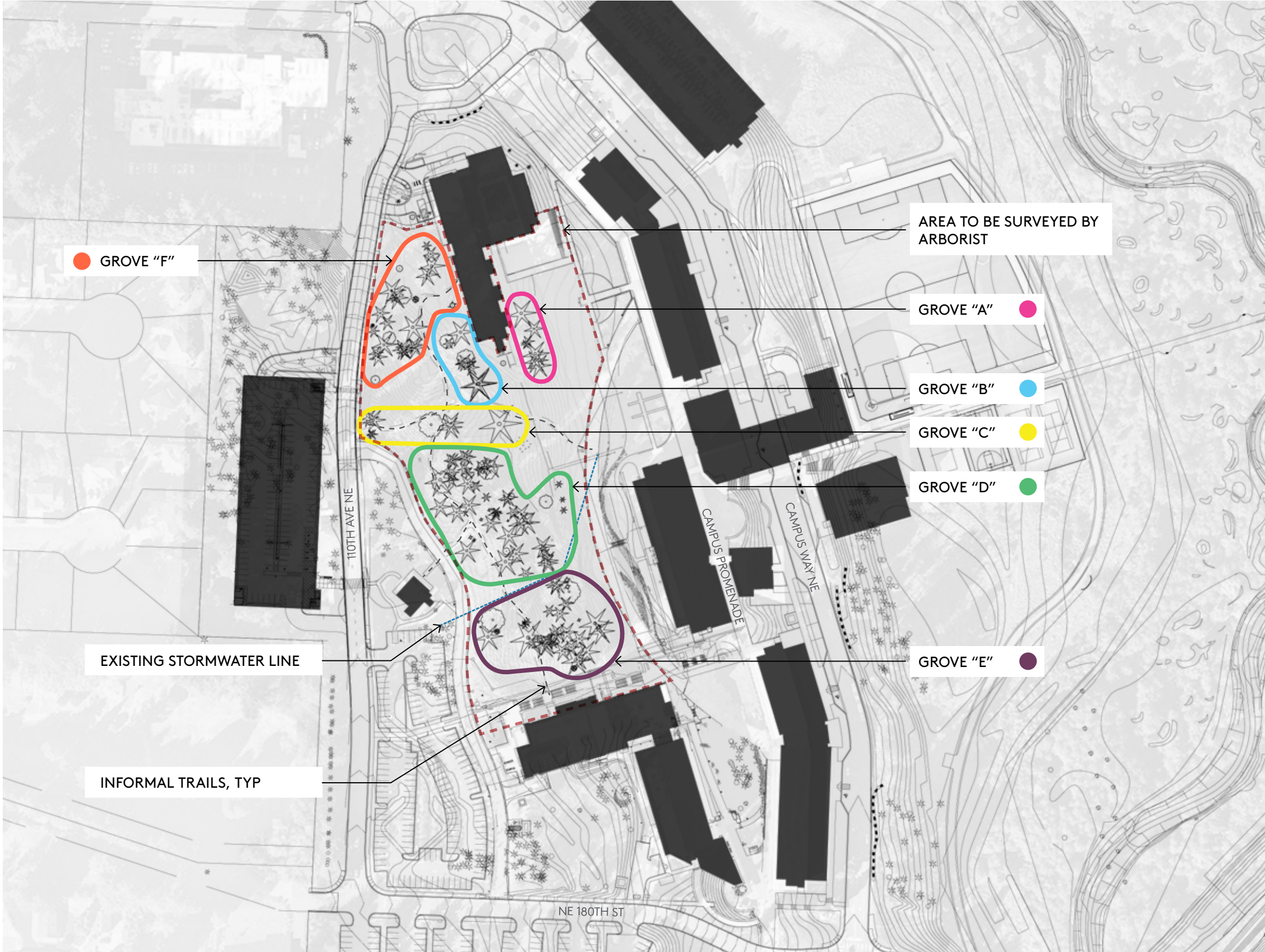
- Existing canopy is fragmented and thin
- Invasive species prevalent

DESIGN PRINCIPLES: TREE CANOPY

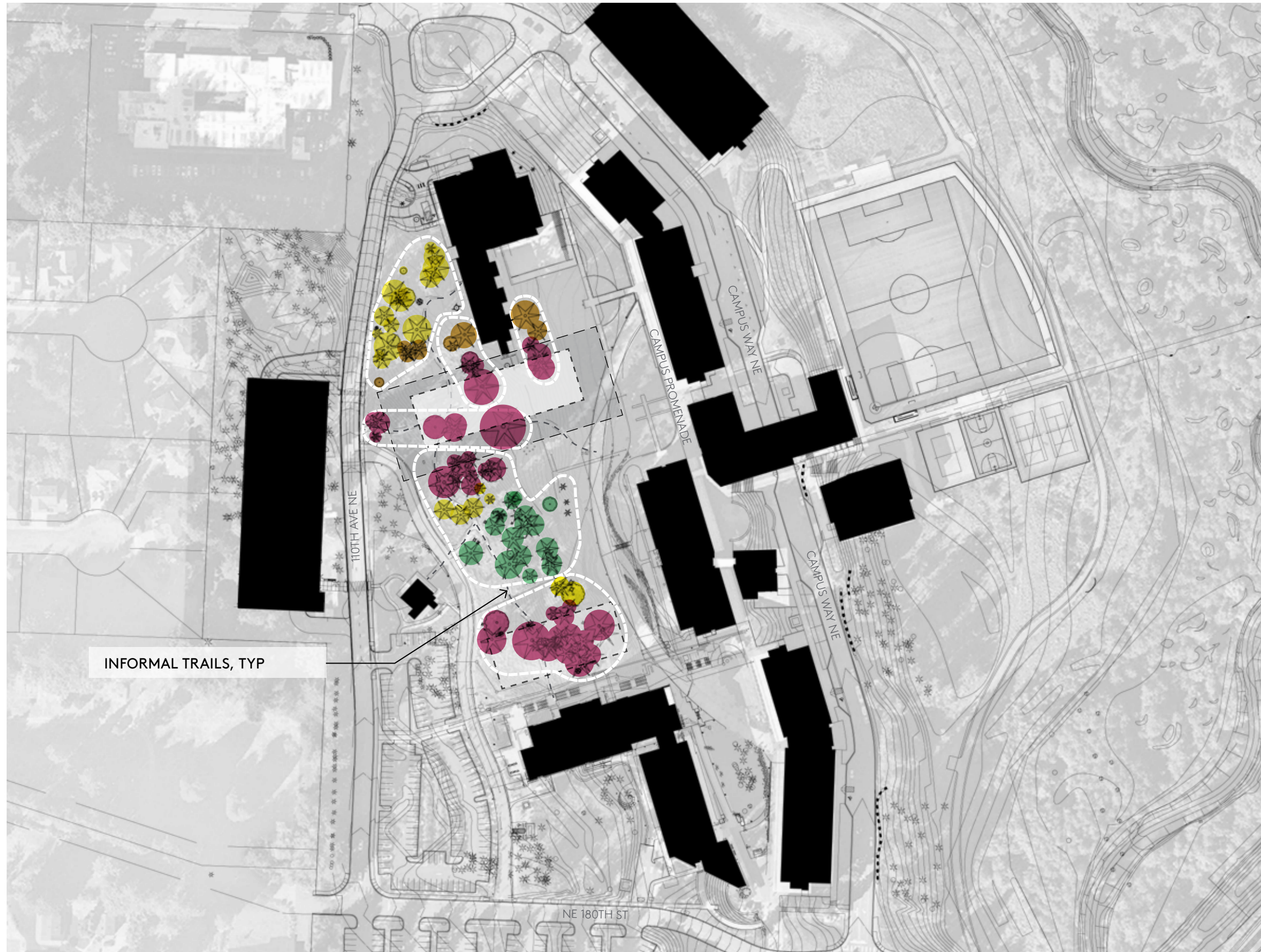
- Balance campus growth with tree preservation
- Minimize tree removal, ensure long-term health
- Repurpose removed trees



TREE GROVES - EXISTING

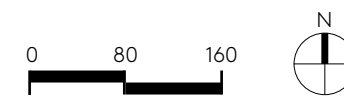


TREE GROVES - DEVELOPMENT IMPACTS



LEGEND

- - - NEW DEVELOPMENT SITE
- — DEVELOPMENT AREA
- TREES FOR REMOVAL
- IMPACTED TREES
- TREES IMPACTED BY CHANGES TO HYDROLOGY, GRADING, ETC
- TREES TO REMAIN



TREE GROVES - RESTORATION OPPORTUNITIES

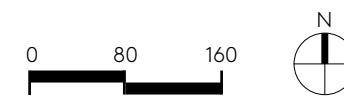


LEGEND

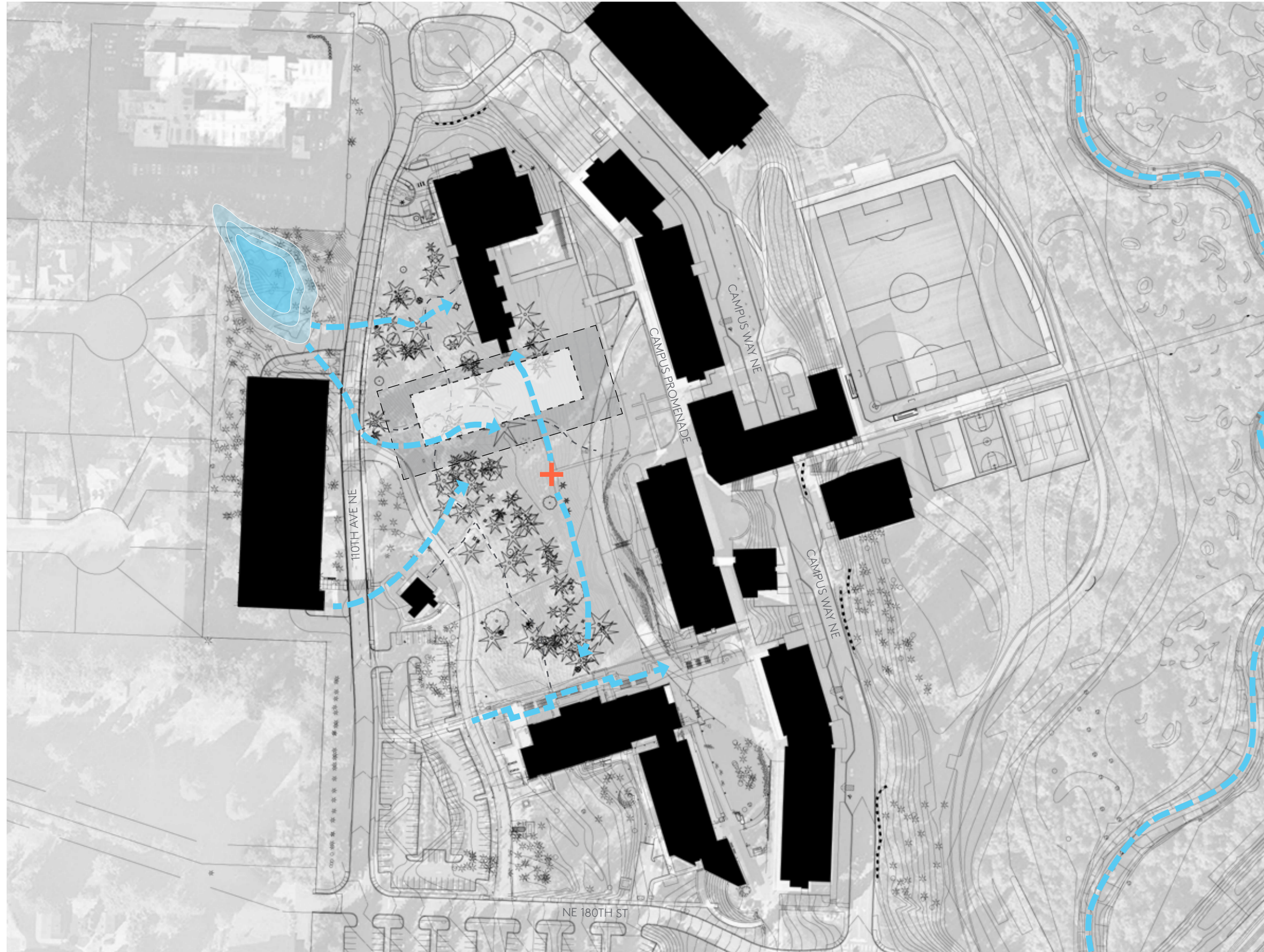
- - - NEW DEVELOPMENT SITE

— DEVELOPMENT AREA

 RESTORATION OPPORTUNITIES

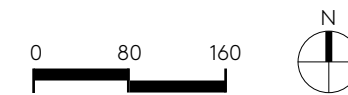


HYDROLOGY



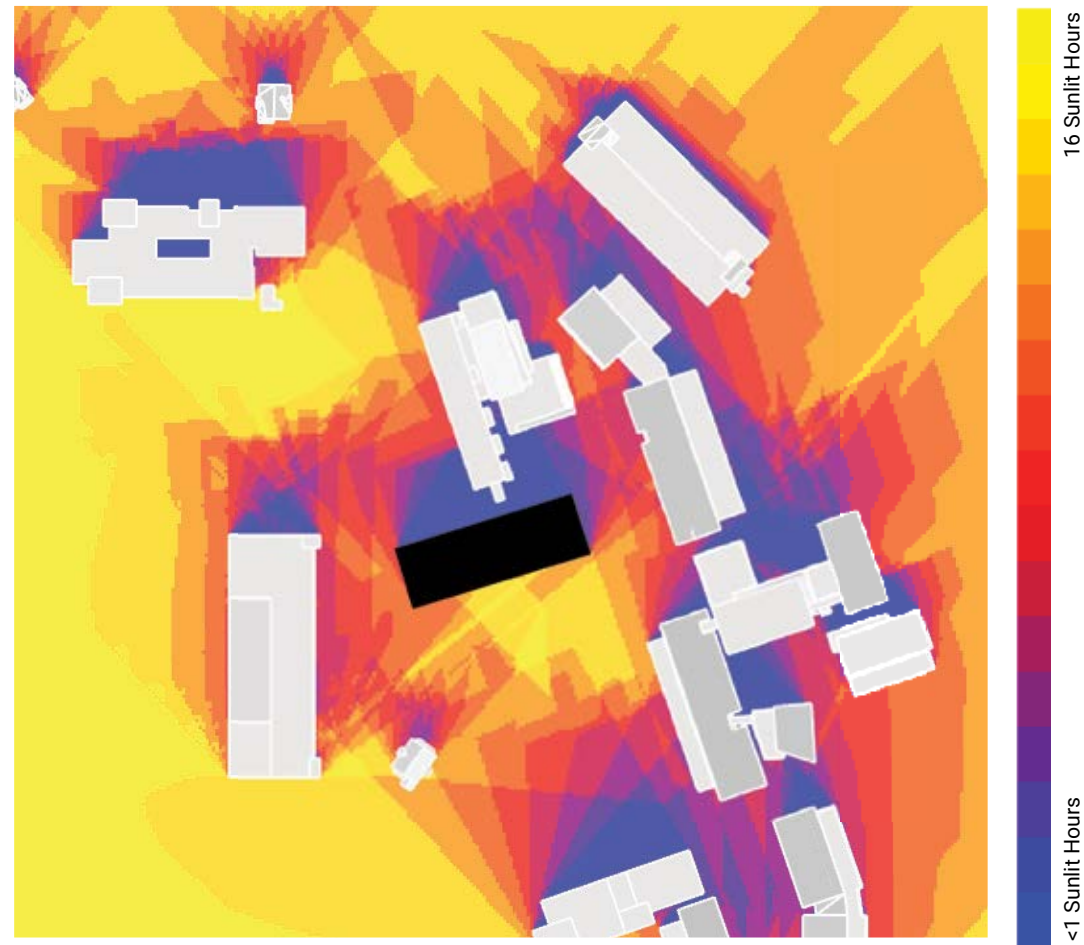
DESIGN PRINCIPLES HYDROLOGY

- Existing drainage ways flow through the proposed building site
- Potential contrast to that of the Discovery Hall stormwater runnel

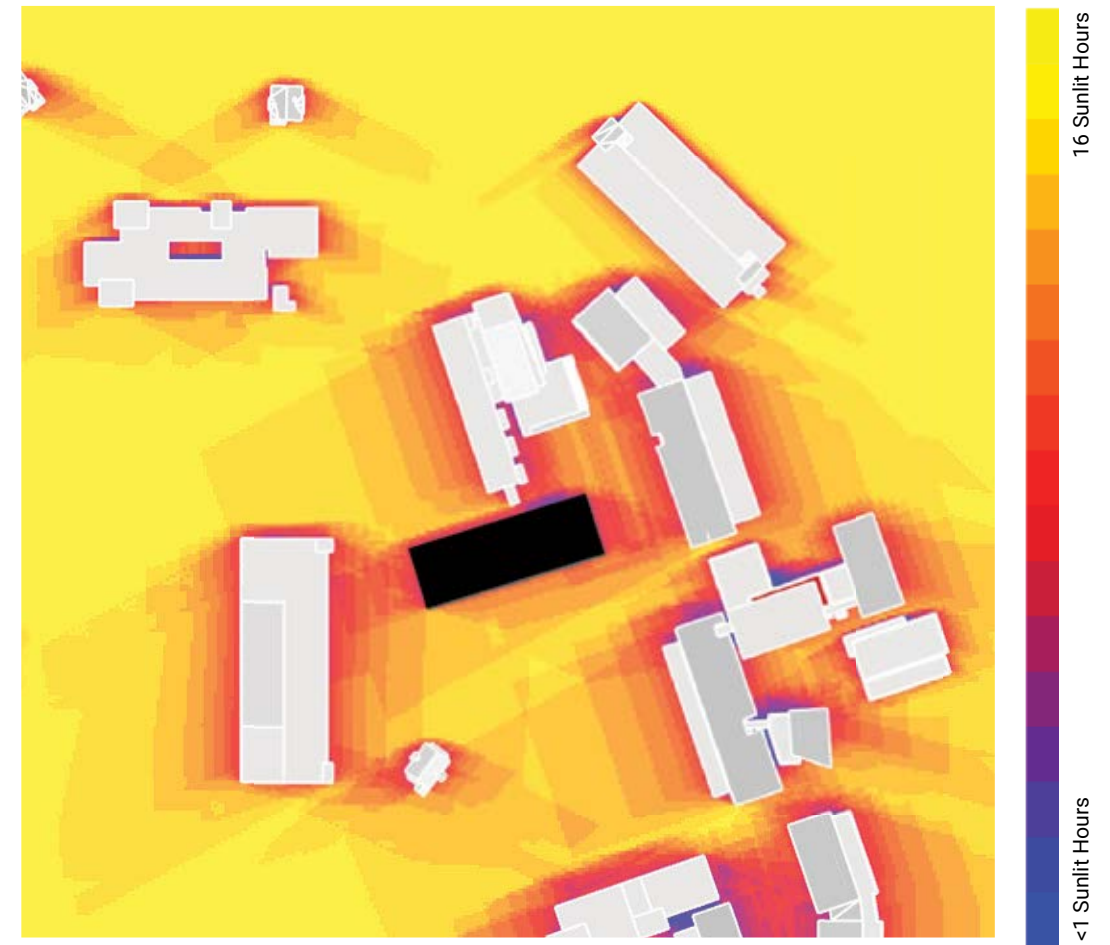


SOLAR ACCESS

Winter [December 21] Sunlit Hours



Summer [June 21] Sunlit Hours

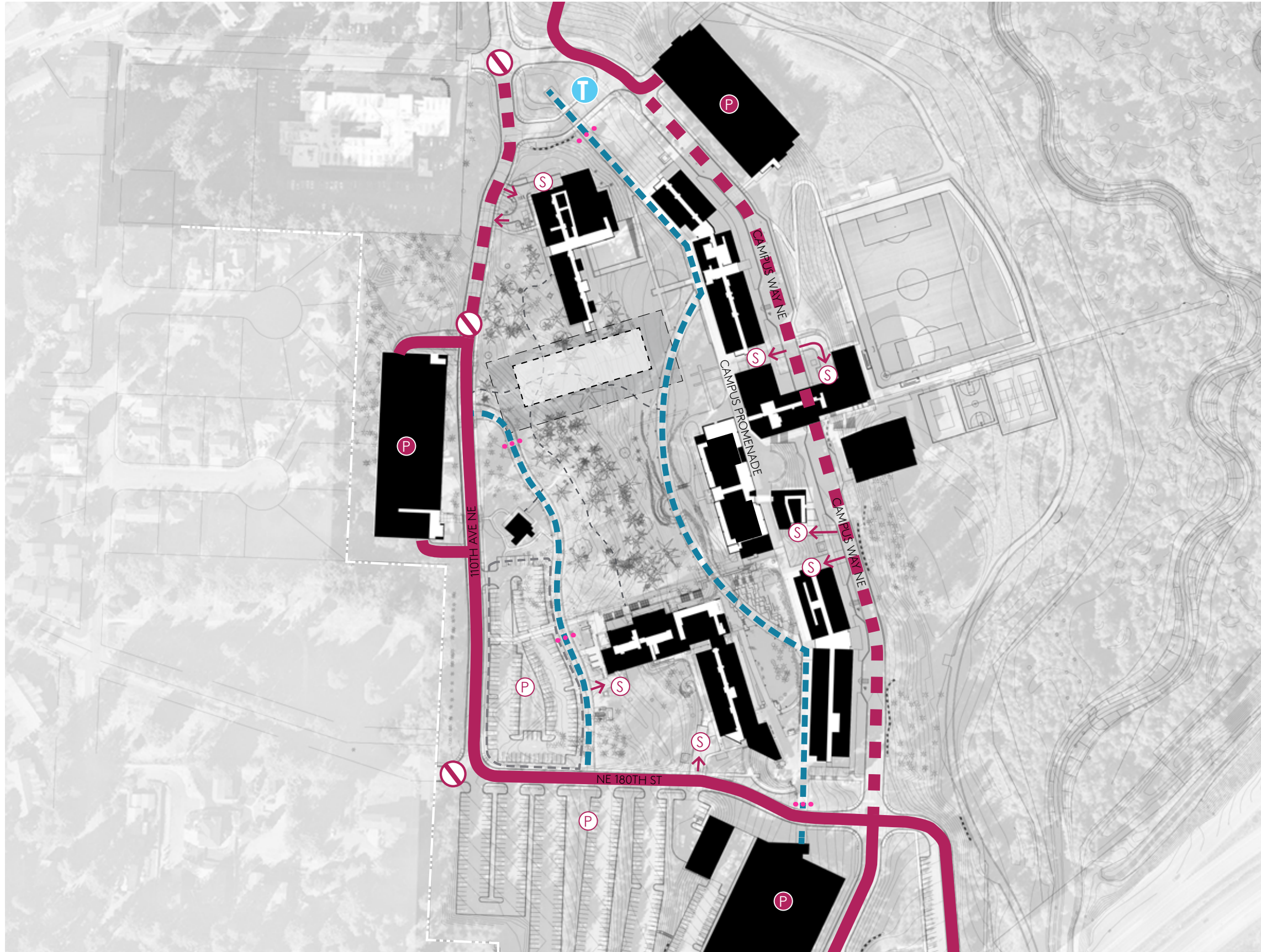


three

Access and Safety—



VEHICULAR CIRCULATION



DESIGN PRINCIPLES WELL-INTEGRATED VEHICULAR CIRCULATION

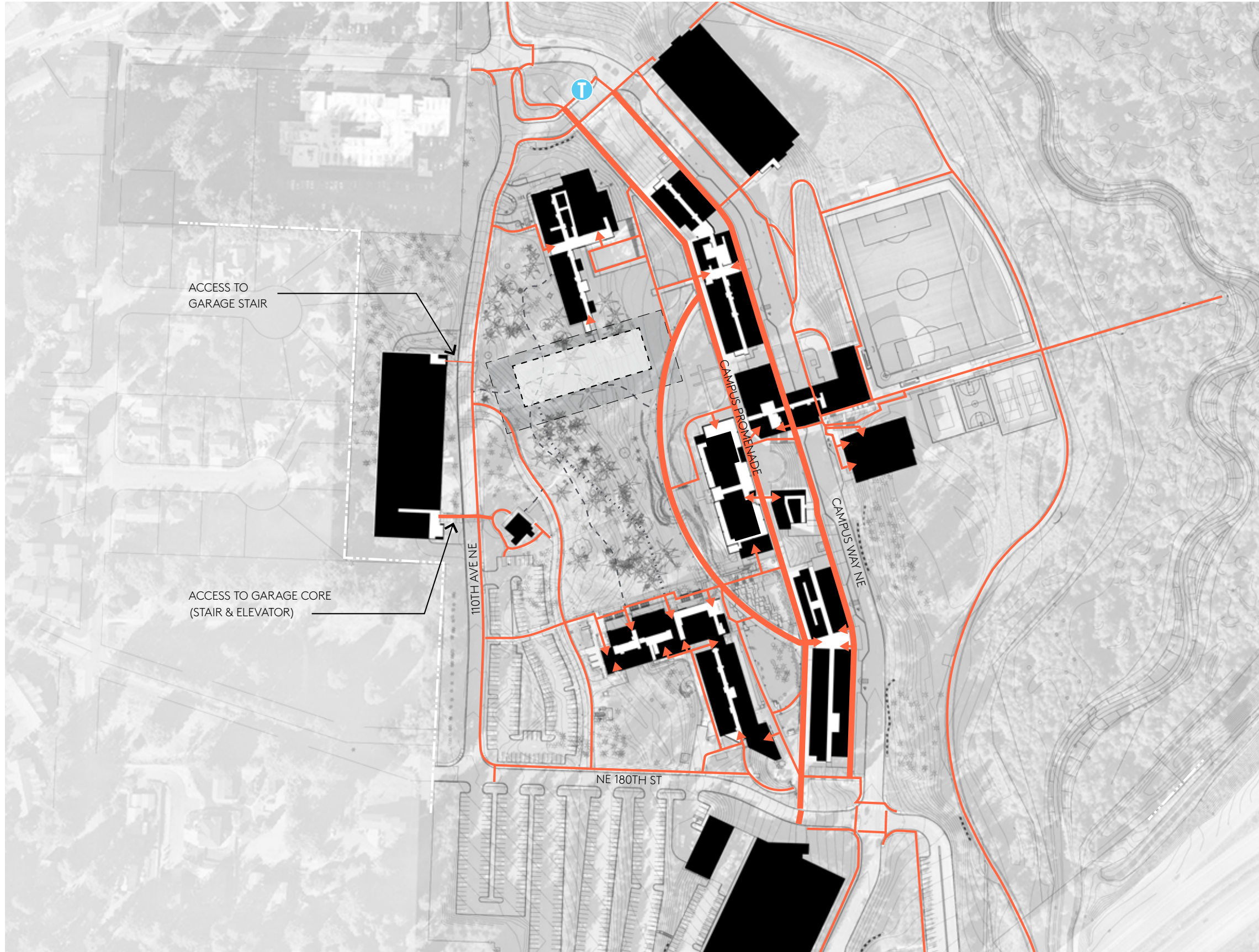
- Incorporate traffic calming measures ... to reduce conflicts with and enhance safety and access for pedestrians and bicycles.
- Provide separation of vehicular traffic and pedestrian routes

LEGEND

- ROADWAY
- TRAFFIC CALMING
- GATE (CONTROLLED ACCESS)
- FIRE ACCESS
- BOLLARDS
- SERVICE ACCESS
- SURFACE PARKING LOT
- STRUCTURED PARKING
- NEW DEVELOPMENT SITE
- TRANSIT CENTER



PEDESTRIAN CIRCULATION



DESIGN PRINCIPLES PRIORITIZE PEDESTRIAN EXPERIENCE

- Provide pathways that provide ample width
- Provide visual stimulus, variety, and places to gather and socialize.
- Supplement pedestrian pathways ... with elevators inside buildings
- Avoid ramps, switchbacks and guardrails.

LEGEND

- PRIMARY CIRCULATION
- SECONDARY CIRCULATION
- - - INFORMAL TRAIL
- ▶ ENTRANCES
- T TRANSIT CENTER
- - - NEW DEVELOPMENT SITE



ACCESSIBLE PEDESTRIAN ROUTES



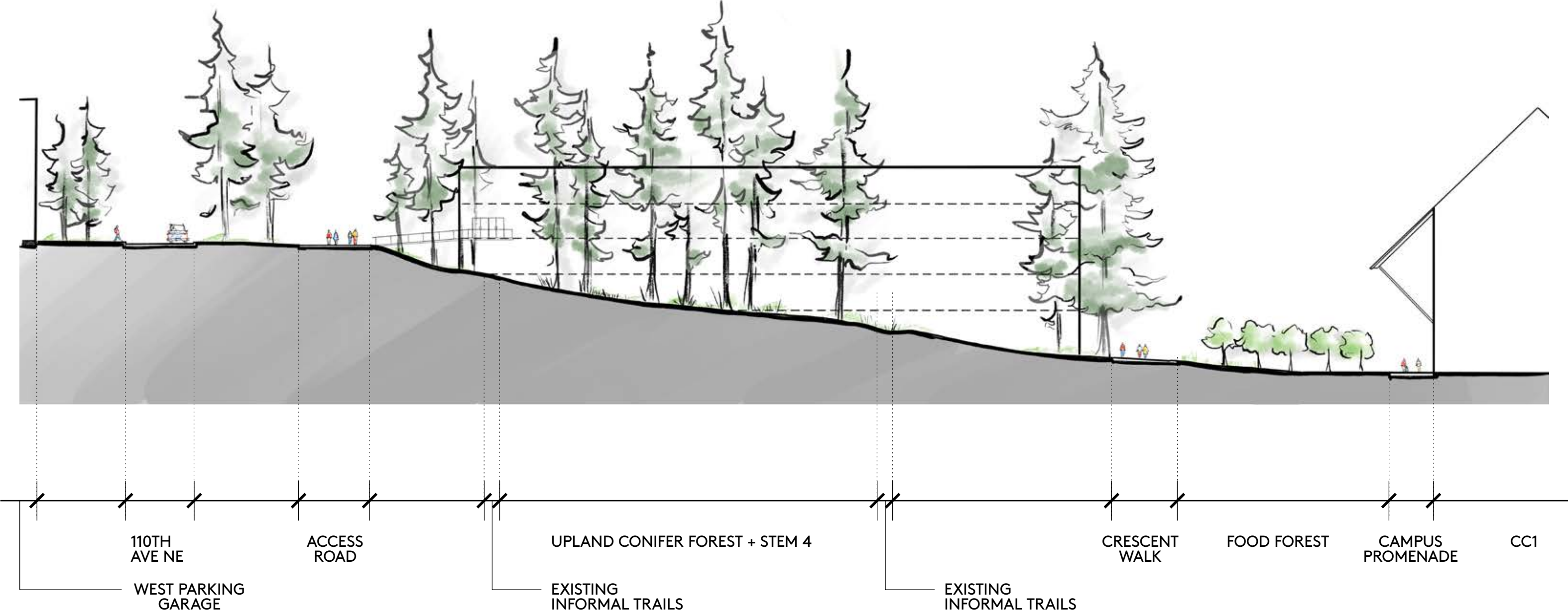
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- Avoid ramps, switchbacks and guardrails.

LEGEND

- NEW DEVELOPMENT SITE
 - WALKWAYS (WITH SLOPES LESS THAN 5%)
 - - - WALKWAYS WITH STAIRS, SLOPES THAT EXCEED 5%
 - DESIGNATED ACCESSIBLE WALKWAYS
 - ADA ADA PARKING SPACES
 - ▼ ENTRYWAY
 - ROADWAYS
 - TRAFFIC CALMING
 - ooo BOLLARDS
 - E ELEVATOR
 - ST STAIRS
- 0 60 120
- N

SOUTH SIDE HILLCLIMB



Knitting In—

VIEWS AND ALIGNMENTS

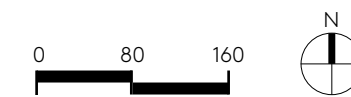


DESIGN PRINCIPLES ENHANCED PUBLIC REALM

- Enhance connectivity between buildings by creating shared entry plazas which give a sense of community and promote the crossing of pathways throughout the day.

LEGEND

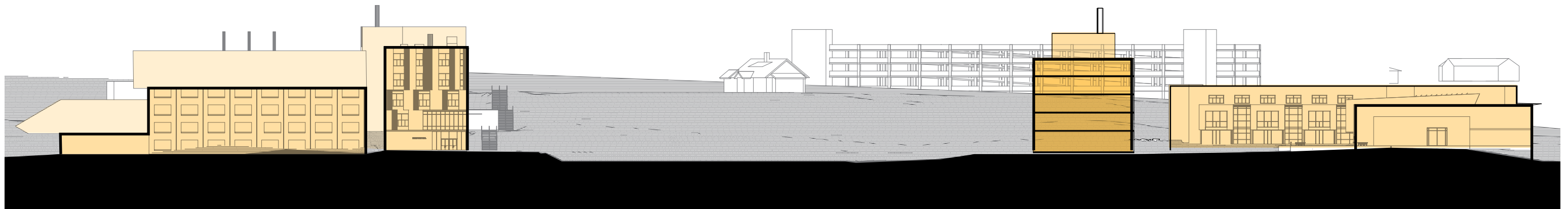
- ALIGNMENTS
- VIEW CORRIDORS PER CMP
- INTERNAL CAMPUS VIEW CORRIDORS
- - - NEW DEVELOPMENT SITE



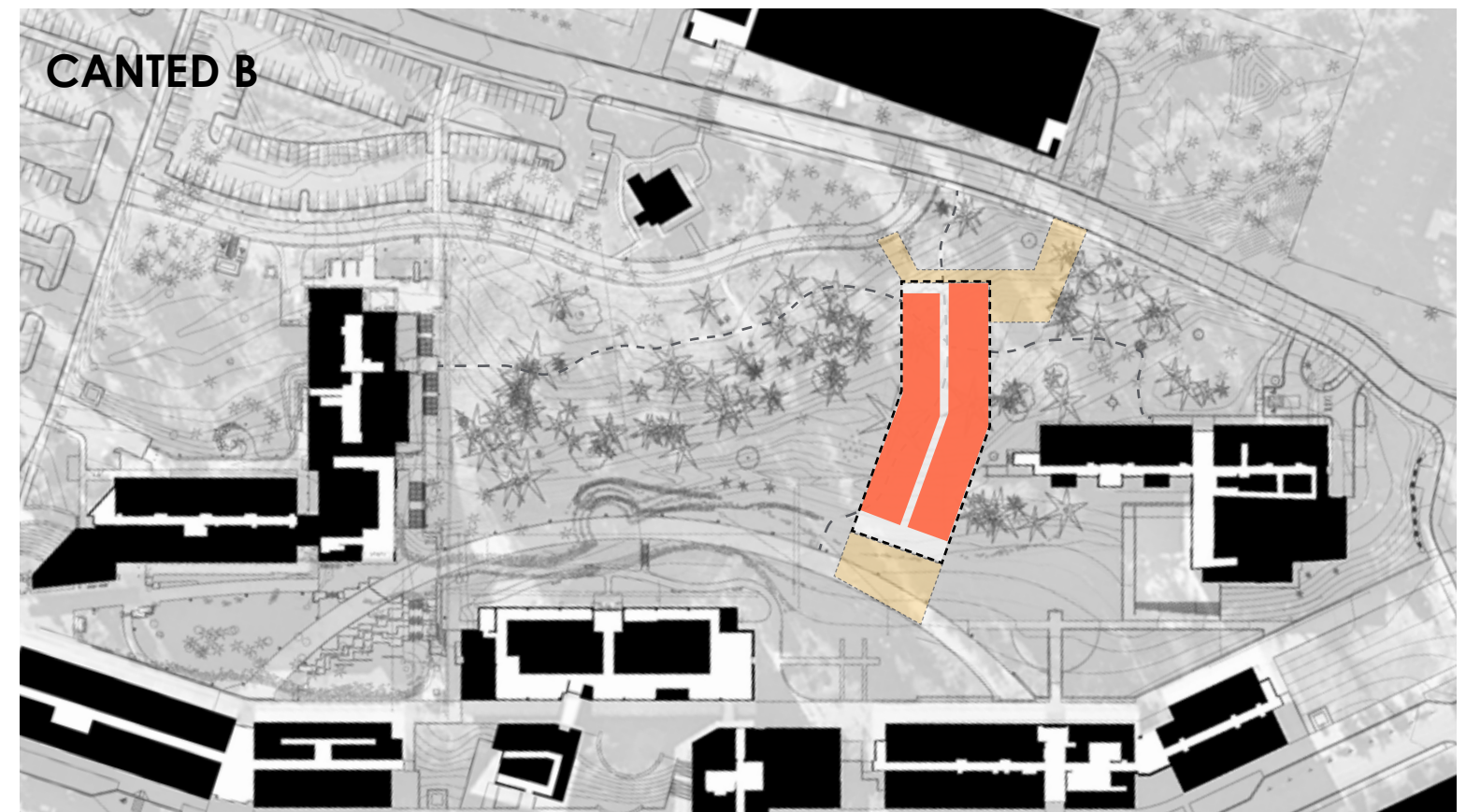
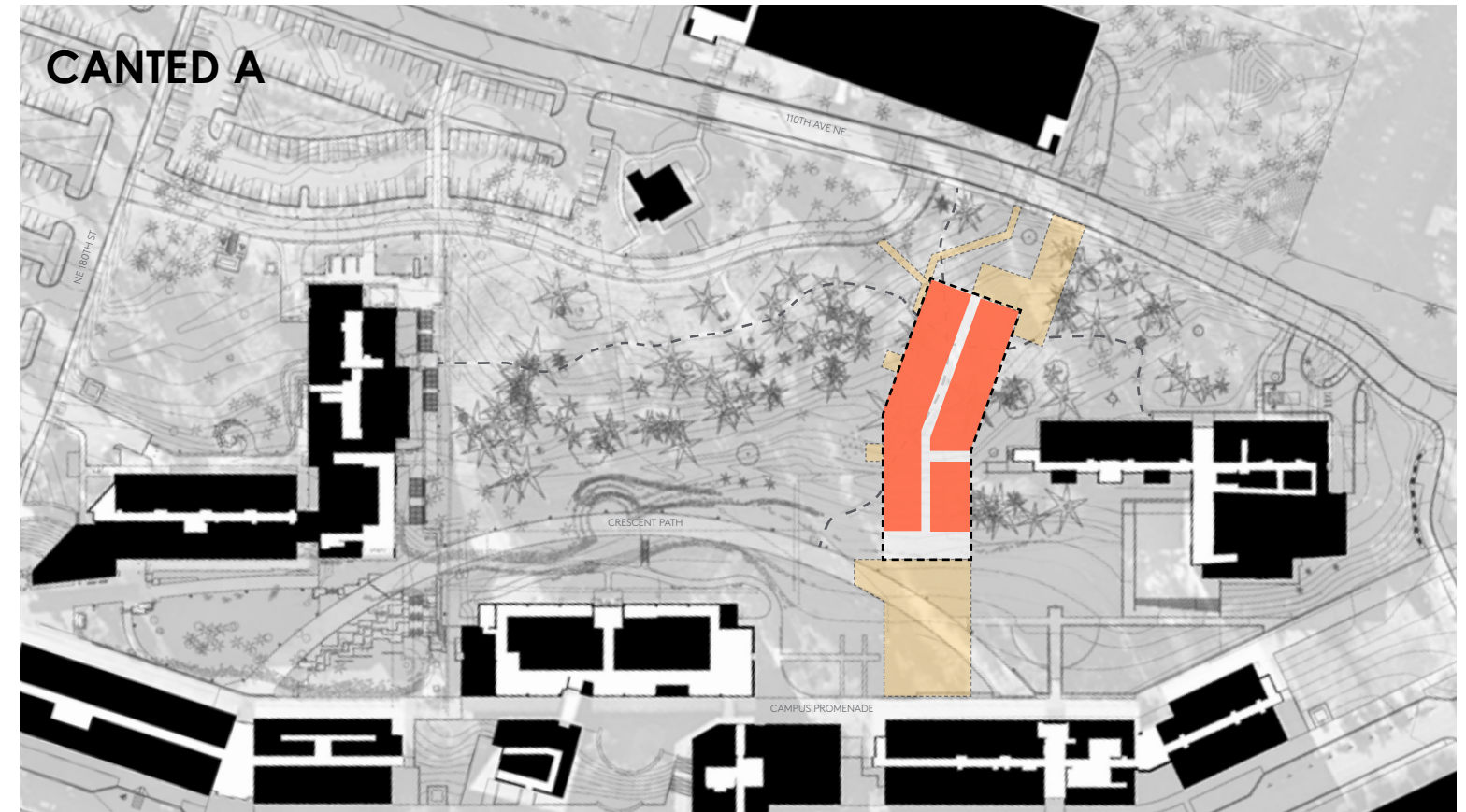
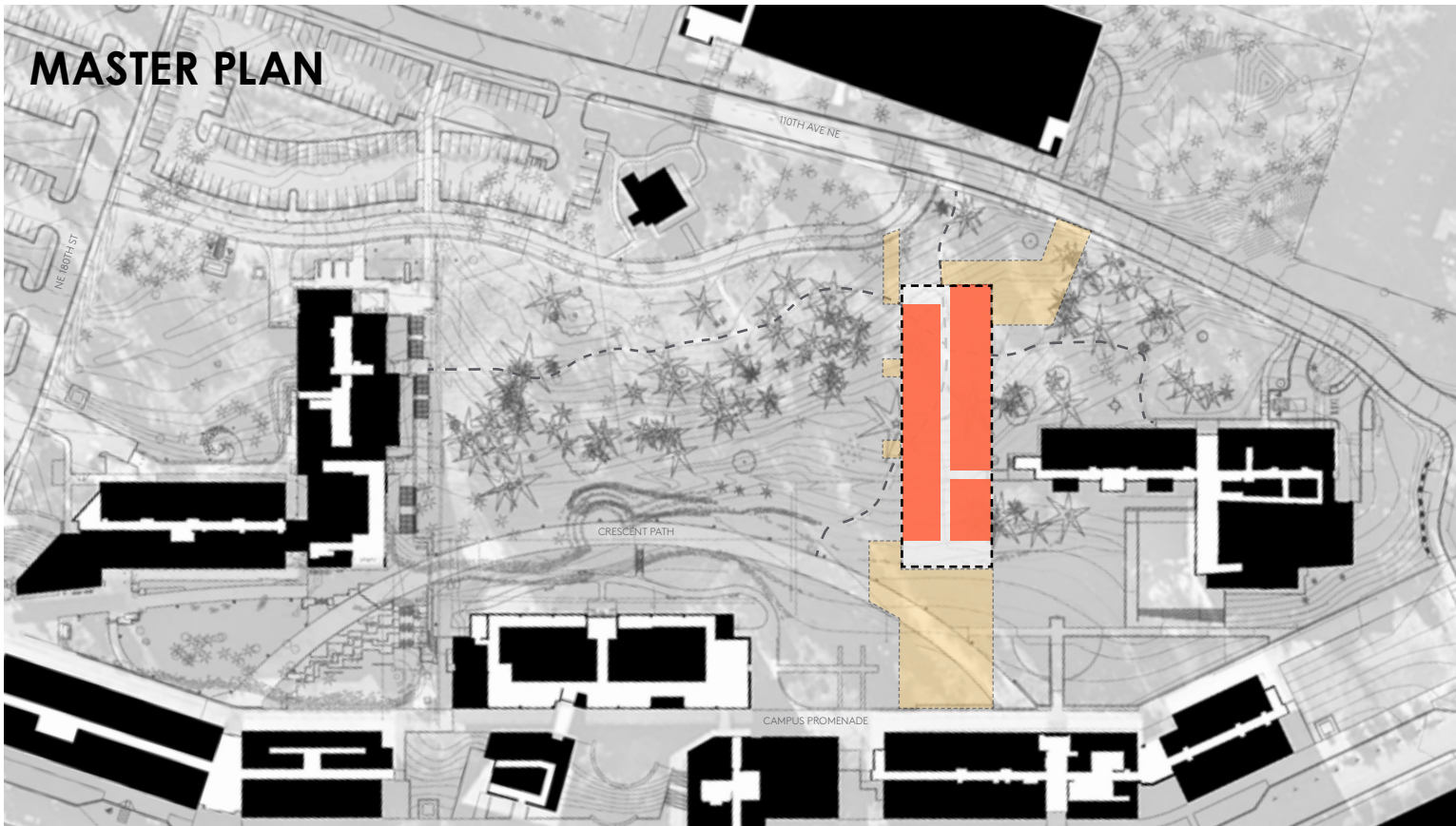
VIEWS LOOKING EAST



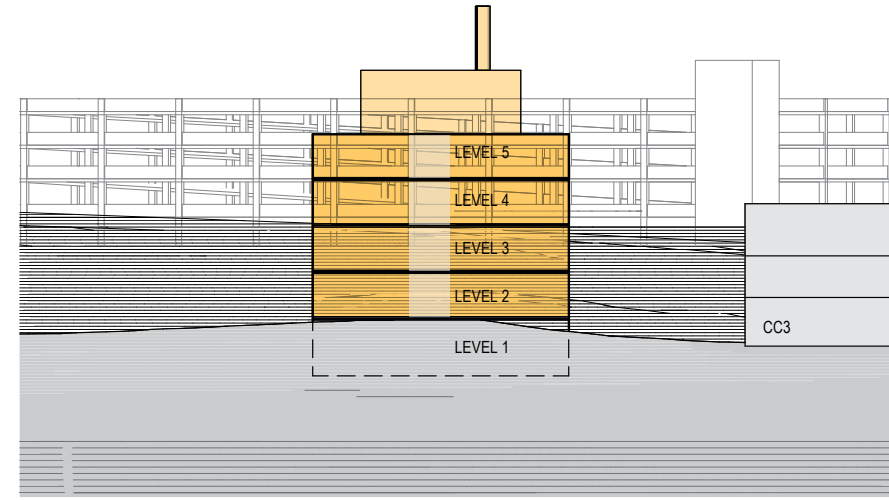
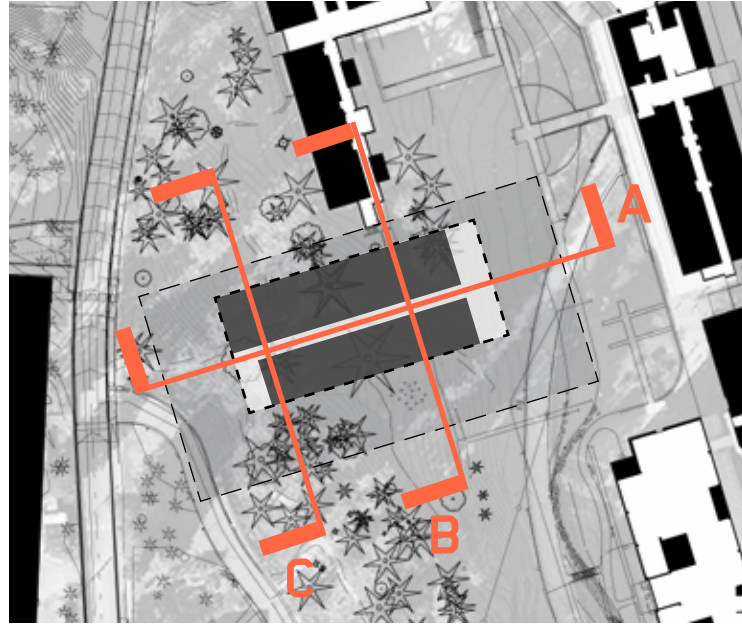
CRESCENT PATH



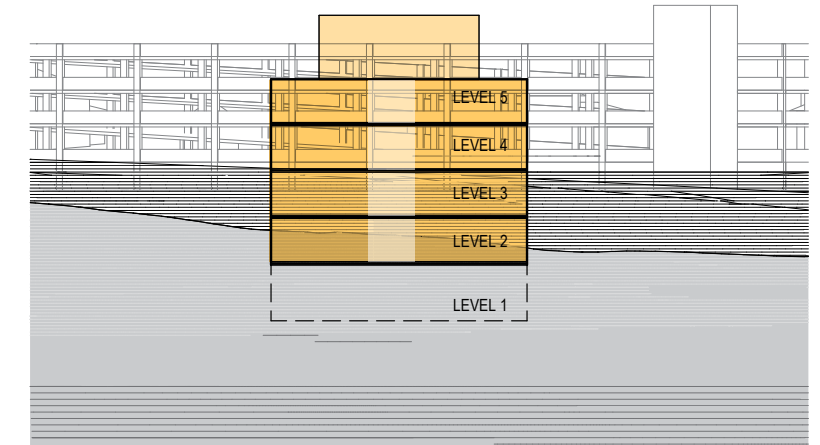
ALTERNATE BUILDING FOOTPRINTS



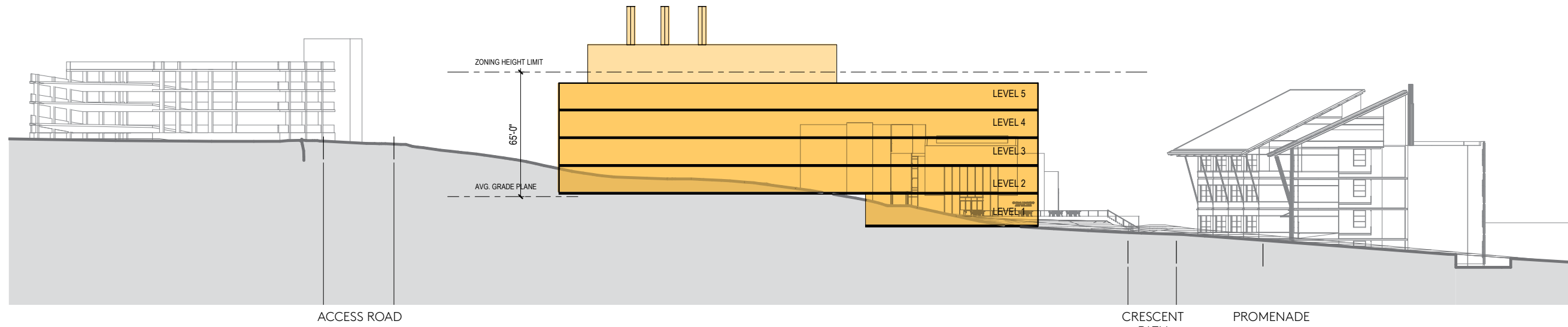
SECTIONS



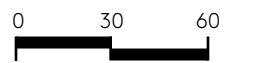
SECTION B



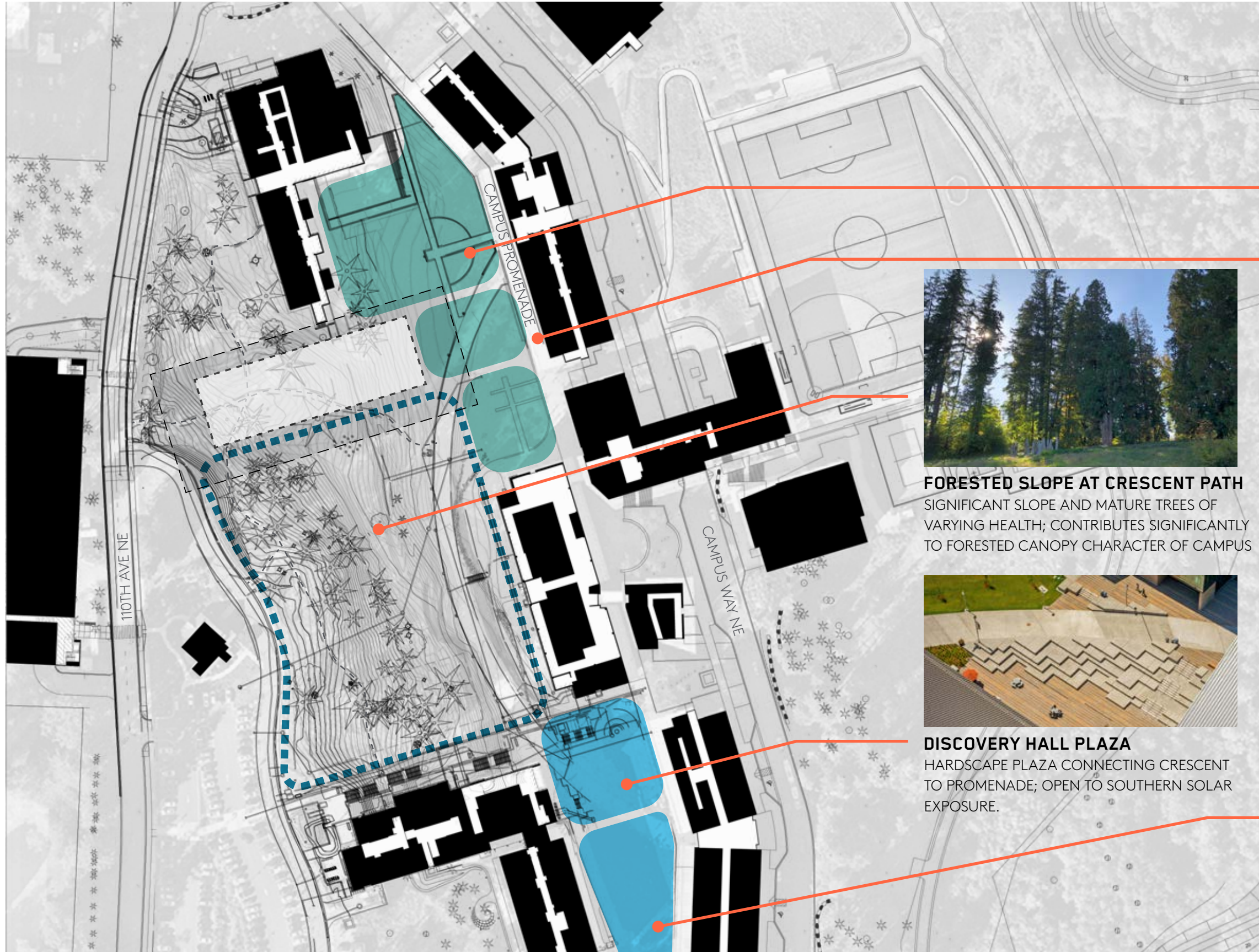
SECTION C



SECTION A



OPEN SPACE



CASCADIA COLLEGE QUAD
NORTH ENTRY TO CAMPUS; OPEN LAWN, SLIGHT SLOPE, LAWN RAISED ABOVE PATH



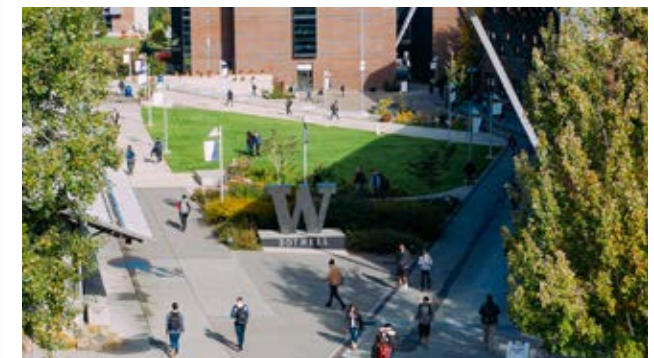
FORESTED SLOPE AT CRESCENT PATH
SIGNIFICANT SLOPE AND MATURE TREES OF VARYING HEALTH; CONTRIBUTES SIGNIFICANTLY TO FORESTED CANOPY CHARACTER OF CAMPUS



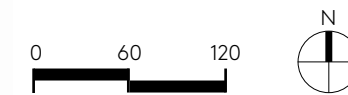
PROMENADE
PEDESTRIAN FOCUS, HARDSCAPE, FRAMED EXPERIENCES



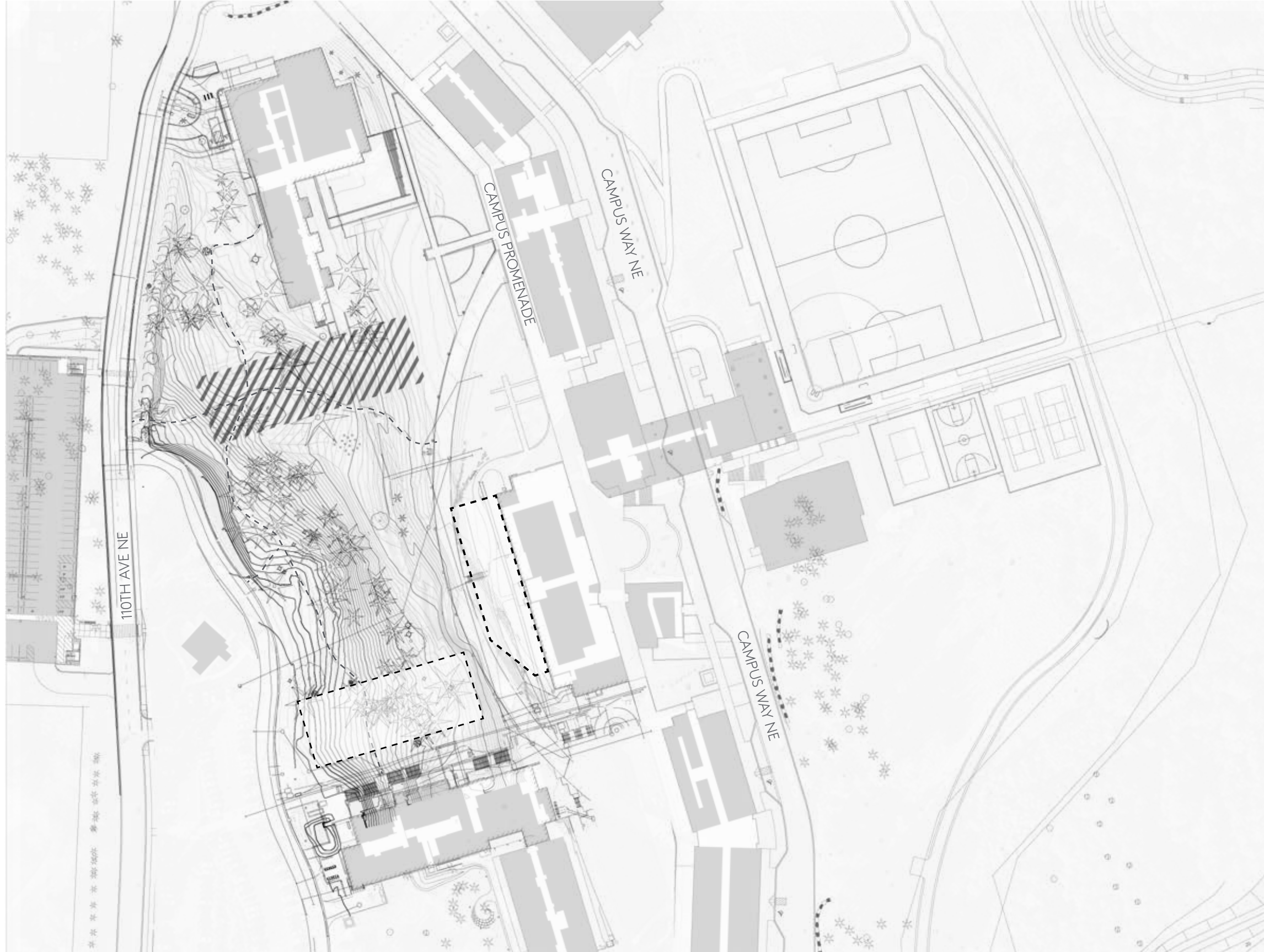
DISCOVERY HALL PLAZA
HARDSCAPE PLAZA CONNECTING CRESCENT TO PROMENADE; OPEN TO SOUTHERN SOLAR EXPOSURE.



UW BOTHELL QUAD
OPEN, GRASSY, ANCHOR TO SOUTH END OF CAMPUS, LANDMARK "W" IDENTIFYING SCHOOL



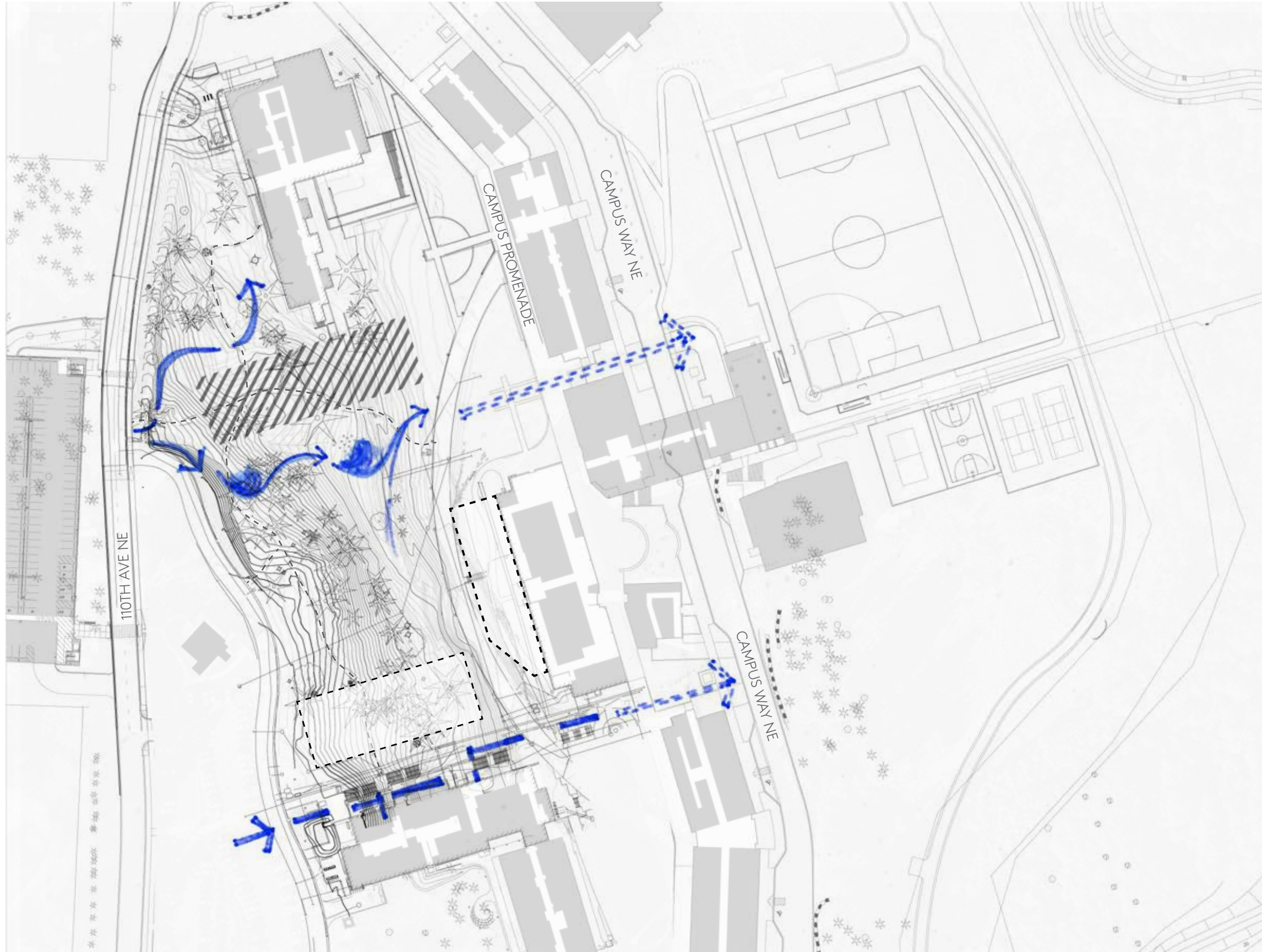
FOUNDATION



ROOMS



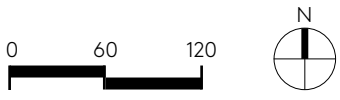
MOVEMENT - WATER



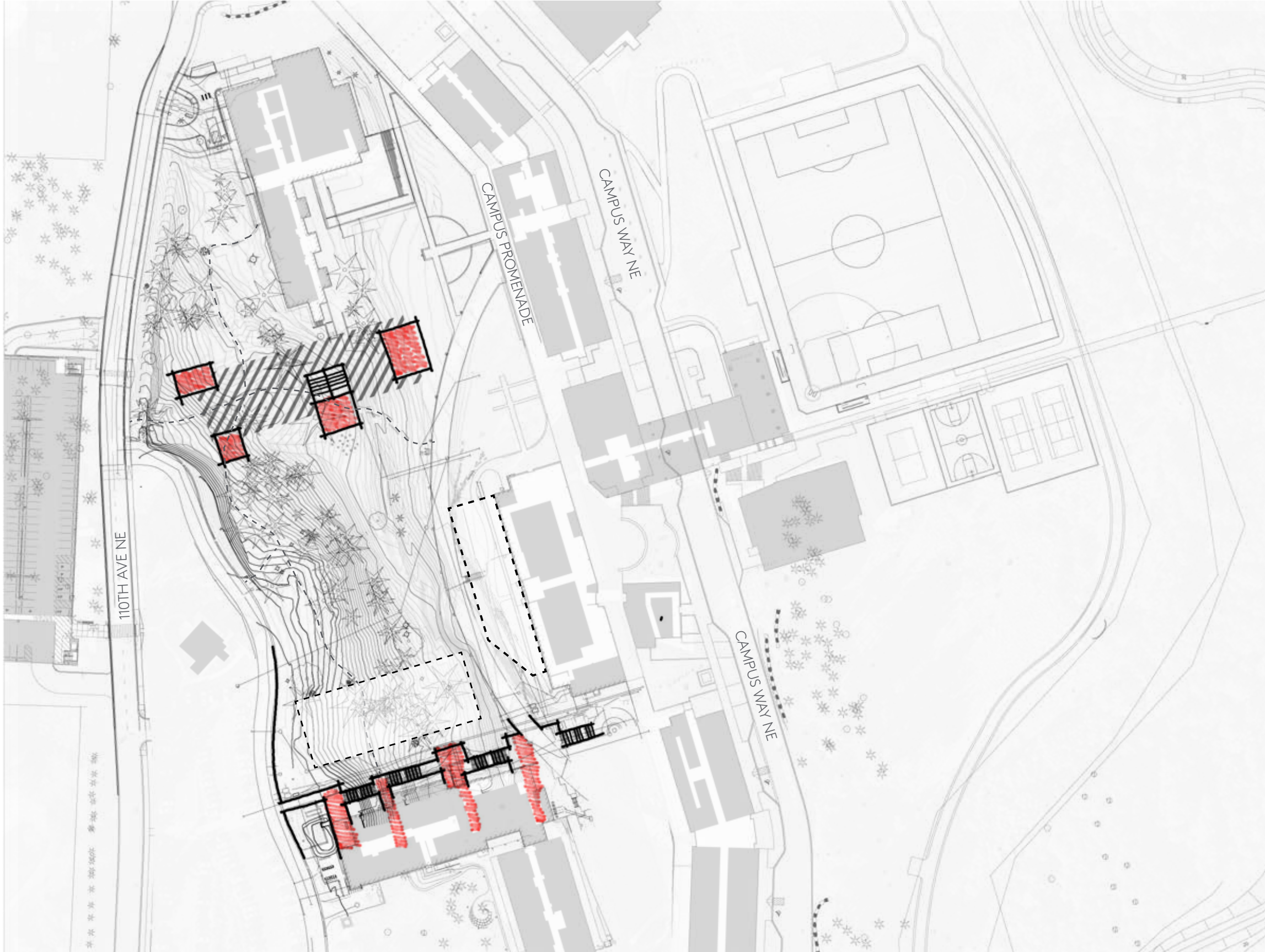
MOVEMENT - PEOPLE



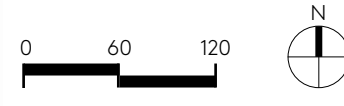
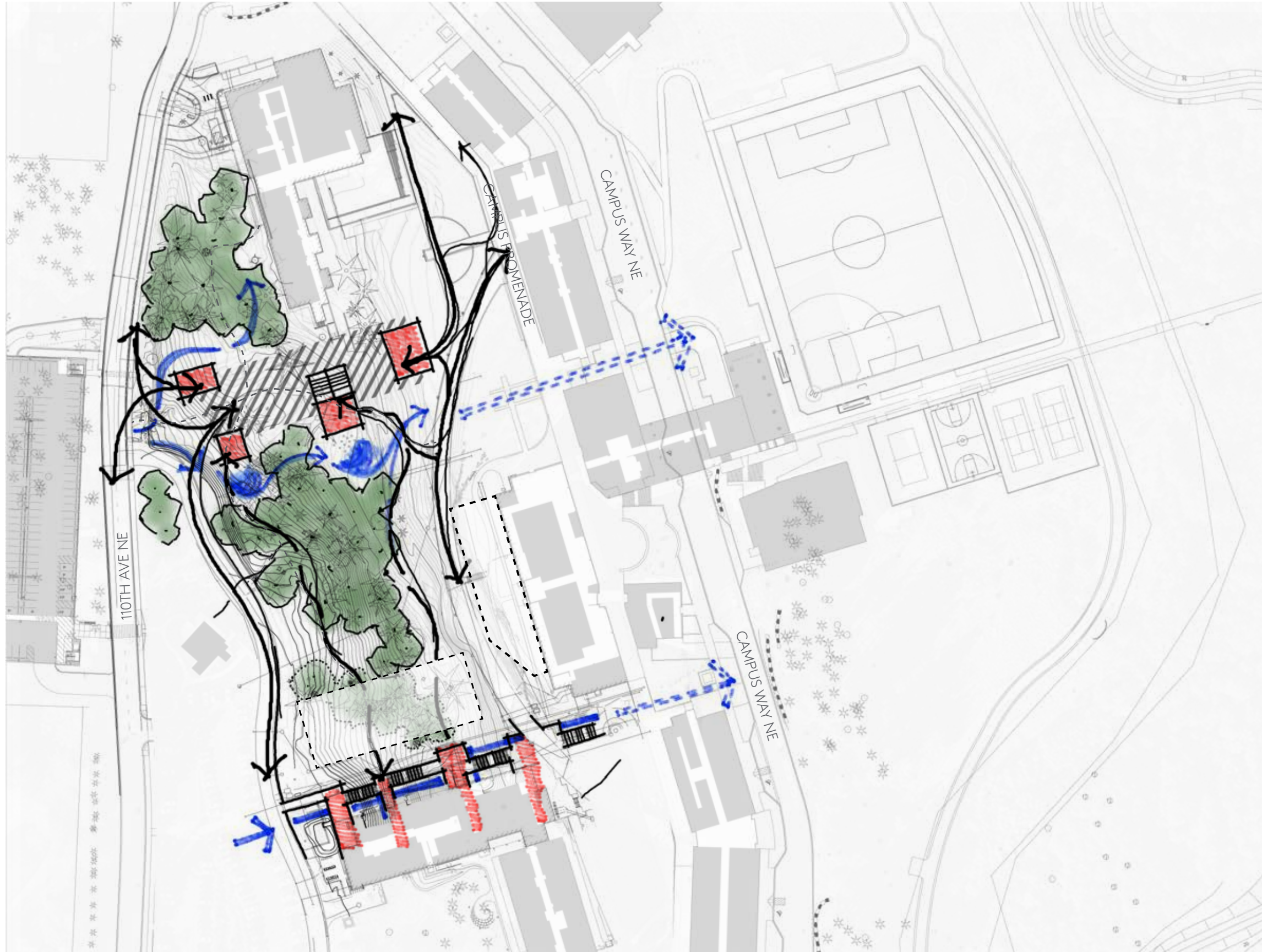
TREES



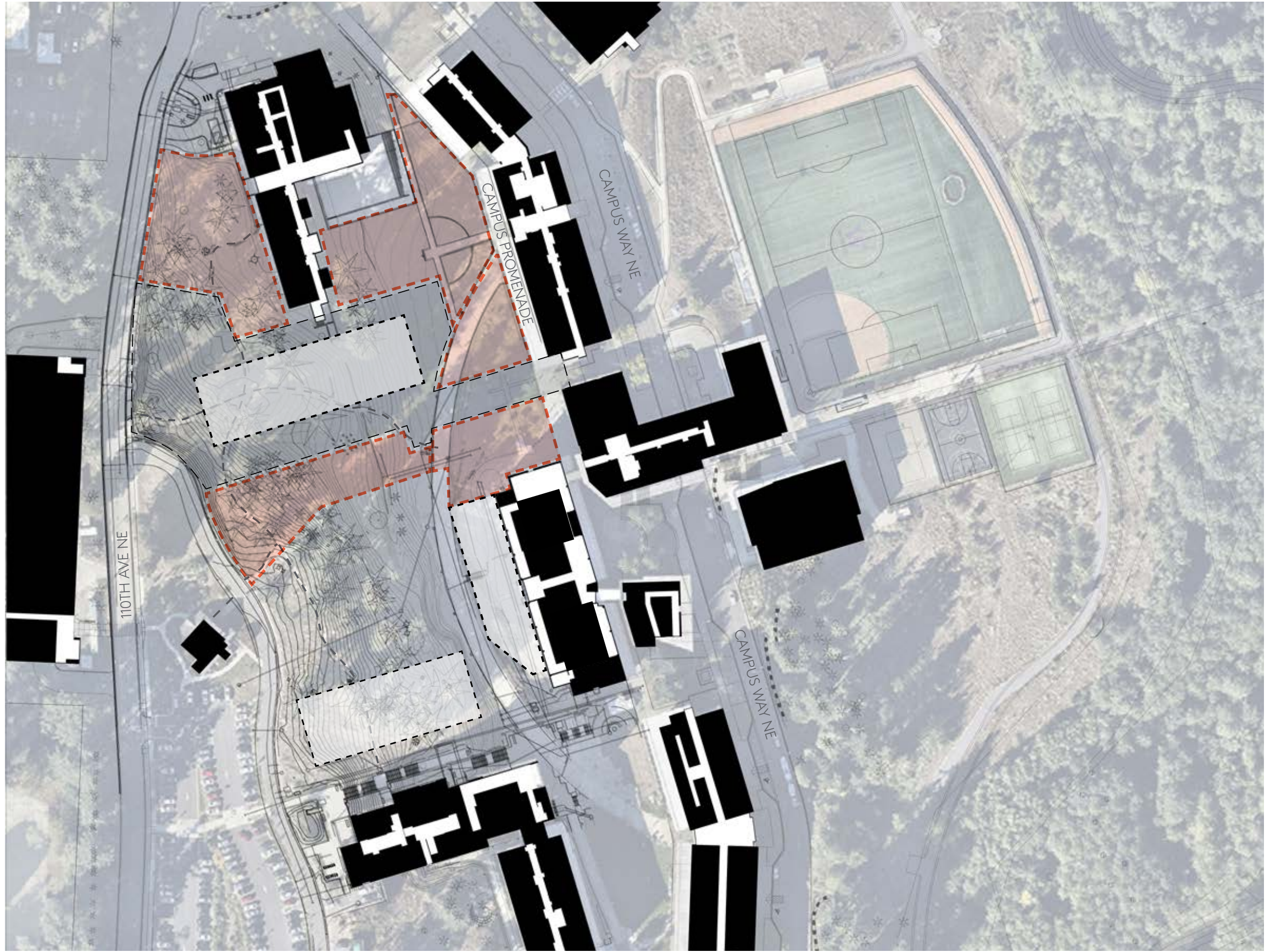
TERRACES



KNITTING IN



DEVELOPMENT ZONES



LEGEND

- [- -] CONSTRUCTION ZONE
- [- - -] INTEGRATION ZONES

