Bennington College
Adaptive Framework Plan

B BENNINGTON COLLEGE

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Opening Statement

In 2022, under the guidance of President Laura Walker, Bennington College initiated creation of a comprehensive Strategic Plan that will articulate the vision for the college as it looks towards its 100th anniversary, 9 years from now. Alongside the strategic plan, this effort is the development of a campus plan for Bennington, framing as an Adaptive Framework Plan. While providing clear guidance and direction regarding the present needs and future development of the campus, the Adaptive Framework does not "lock in" on a singular path, but rather provides for long-term flexible planning through a comprehensive collection of concepts and actions.

This report is a summary of the process and strategies which have emerged over the past year of study in robust dialogue with Students, Faculty, Staff, Alumni, Trustees, and the surrounding community. This looks to establish a clear vision and means of implementation for adapting the physical campus to serve the needs of the College into its second century. The simultaneous development of the Strategic Plan and the Adaptive Framework Plans plans has allowed for feedback and exchange between larger strategic directions and the possibilities and constraints connected to the College's land and buildings.

The goal of this Adaptive Framework Plan is to provide Bennington College with a menu of options to guide the use of its buildings, landscape, and other resources over time, in such a way that solutions can be tailored to the changing needs of the institution. Rather than a fixed and static plan, the Adaptive Framework Plan is intended to serve as a living and dynamic tool, designed and organized to facilitate and respond to future needs and shifting resources.

"It is the policy of the Trustees that Bennington shall erect no monumental buildings, but will adhere to a principle of alertness and readiness to meet changing conditions."
– Bennington College: A Prospectus, 1929

Adaptability is one of the founding values of Bennington. When the Great Depression forced Bennington to find a new campus site in 1930, the founders molded and reworked existing building plans to fit a new site. Grand brick dormitories became modest wood-framed houses, the central academic building was scaled down, and existing barns and miscellaneous agricultural structures were renovated to become academic and administrative buildings. These creative solutions in the face of challenging constraints came to define the character of the campus and the institutional spirit as a whole.

Andrew Schlatter
Facilities Management & Planning

i.   Framing the Plan

This introductory section outlines the general approach and larger campus frameworks that serve as a foundation for the Adaptive Framework Plan. Over the past year, we have completed a deep level of investigation, broad engagement, and synthesis to create these recommendations and an extensive project matrix.

The Framework is meant to be a planning tool, part of supporting the translation of need to an appropriate solution, tuned through evaluation and refinement. This report is only a guide to the realm of possibilities. By maintaining design principles the College has an opportunity to strengthen its mission and support greater cross-disciplinary living and learning.

Bennington's Mission

Bennington liberates and nurtures the individuality and rigorous creativity of its students, supporting them as they forge their own paths and work toward a world more beautiful, sustainable, democratic, and just.

Bennington Today

A Unique College Experience Poised for its Next Chapter

Bennington College is at a turning point in its history. Following an enrollment decline during the COVID-19 pandemic, the College welcomed over 250 first-year students and 18 transfer students in 2022, the largest in the College's history. Student housing is at capacity and the college needs strategies to accommodate cost-effective growth.

Earlier this year, the College was designated for inclusion in the National Register, recognizing the College's architectural and historic significance. This strong foundation of place is critical to carefully adapt for new academic needs and future sustainability goals.

There is also a need to keep expanding the local, regional and global reach of the College. This starts with the sense of the campus itself and how the College connects physically and programmatically.

Takeaways

Student Housing at Capacity

Aging Campus with Ambitious Sustainability Goals

Global Institution in a Rural Setting

Strong Architectural Stock with Capacity to Adapt

Need for a Stronger Sense of Arrival

Transitioning to a Year-Round Campus

Top: Outdoor class session, using the unique landscape assets of the College

Bottom: VAPA painting studio space, with open and light-filled character

Building on Bennington's Past Towards a Compelling Future

From initial analysis through scenario development, the team refined a set of six goals in relation to current issues and opportunities. These relate to the specific space constraints and opportunities of the existing buildings and landscape to support larger strategic goals of the college. They were developed in dialogue with the Strategic Plan work and note opportunities both on and off campus.

The student experience and academic growth is at the heart, providing the infrastructure for continued learning and innovation. There is a need for growth in the student body and with that the opportunity for developing new programs and fields of study.

Bennington College has been a leader in sustainability and these accomplishments have been widely recognized. The potential is to deepen this leadership with the existing ecosystems and become a model for how to adapt with climate change.

The set of goals to the right relate to the physical campus, reinforcing connections within the campus and new bridges to adjacent towns and the region. This may be through mobility improvements but also how campus buildings are utilized and open to multi-disciplinary work and community programs. A key part is the sense of arrival and orientation.

Top: North elevation of the renovated Commons, a mixed-use hub of campus

Bottom: Winter view of Crossett Library from the East

Goals

Provide for Student Body Growth & New Programmatic Directions

Expand Sustainability Leadership & Adapt Ecosystems with Climate Change

Connect the Campus to the Greater Community, Region & Globally

Preserving, Upgrading & Re-Programming Campus Buildings to meet Future Needs

Improve Walkability & Navigability Towards a More Legible Campus

Support Partnerships On & Off Campus to Enrich Student Life Year-Round

Project Team & Process

The Adaptive Framework Plan has been one component of several parallel studies underway to look at the strategic direction of Bennington College over the next several years. The process overlapped with the Strategic Plan at multiple points over the past year, in particular at three Board of Trustees meetings and concurrent development of goals. The Marketing Refresh, an effort focused on the communications, identity, and marketing work of the college, kicked off this February. Together, these parallel projects represent a comprehensive effort to assess Bennington's current needs and plan for the future through broad, multidisciplinary, and community-engaged processes.

Following an Initial Analysis phase over Summer 2022, the project team kicked off the engagement process over Alumni Weekend with a set of meetings with Alumni (September 2022) to introduce the process. We followed with a set of Student and Faculty Sessions in October, which highlighted the need for a larger, cross-constituent body (Students, Faculty, Staff) that could commit to the project over a span of time, allowing for a deep dive on specific topics. Shortly thereafter, the Working Group was formed and started meeting weekly in November 2022, continuing through Field Work Term in January-February 2023. Weekly meetings were organized around specific topic areas, and consisted of brief presentations from the project team followed by an open discussion and feedback period.

Concurrent with the Working Group, the project team met with a number of small groups of "subject matter experts" from across campus to focus on specific needs and potentials within individual buildings, administrative departments, programs, and academic discipline areas. Groups were also provided with individual Building Surveys to capture detailed room-by-room and detailed program information to feed into this plan.
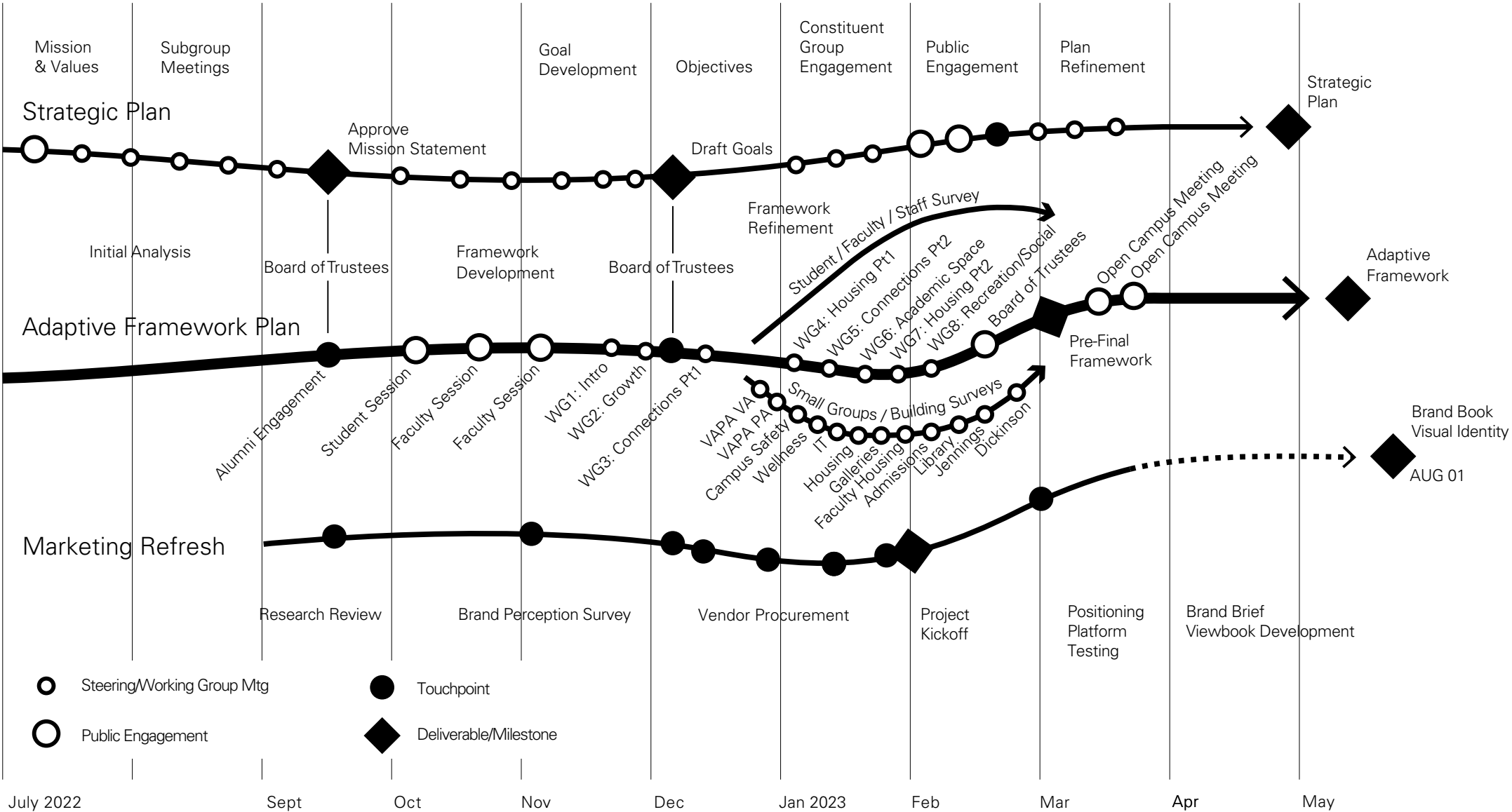
Working Group

Faculty
Michael Dumanis (Literature)
Michael Giannitti (Dance/Drama)
Joe Alpar (Music)
Donald Sherefkin** (VA)
Mariam Ghani* (VA)
Eileen Scully** (SCT)
Blake Jones (Sciences)
Ginger Lin (Languages)

Students
Lorena Fernandez Camba
Muhammad Tanvir Anjum
Charlotte Poehlmann
Nicholas Pertz Kelley
Sawyer London*

Staff
Sarah Harris
Erin McKenny
Carly Rudzinsky
Fran Salcedo-Edwards

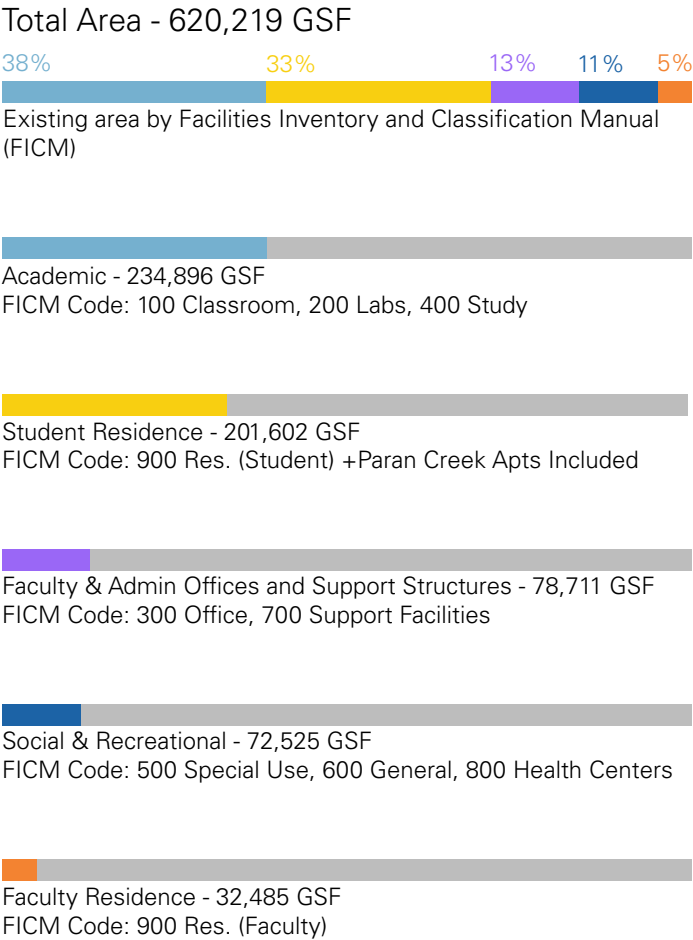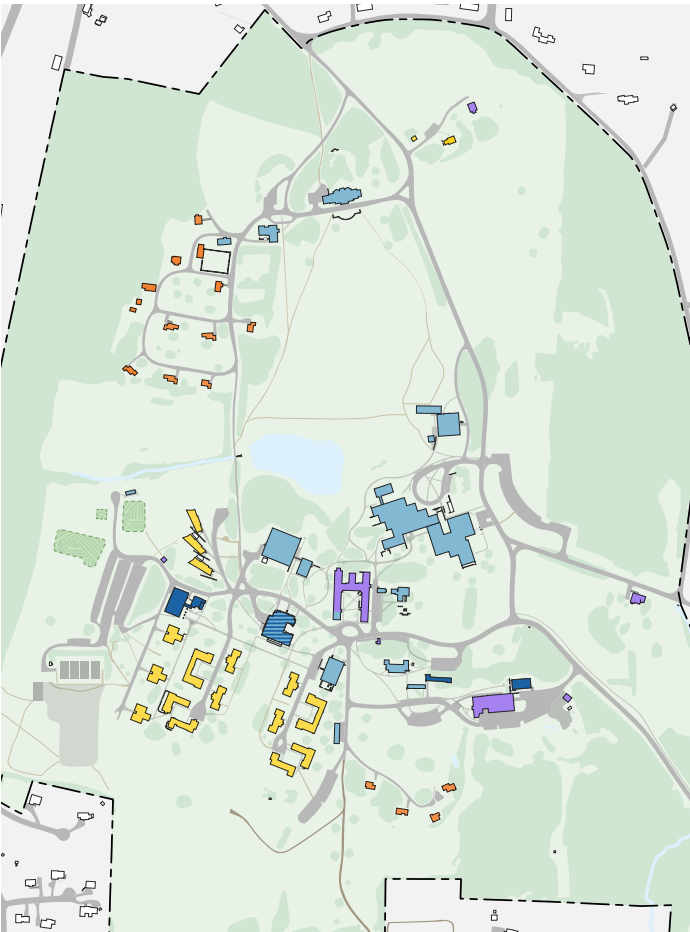**Campus Planning Committee, Board of Trustees**
Susan Borden, co-chair
Matthew Clarke, co-chair
Priscilla Alexander
Dan Rowland
Tracy Katsky Boomer
Charlene Schwartz
Christine Congelosi-Lulla, staff representative
Donald Sherefkin, faculty representative
Mohammad Tanvir Anjum, student representative

* Denotes member of Strategic Planning Steering Committee
** Denotes member of Faculty Executive Committee

The Need for Growth

Total Area - 620,219 GSF

| 38% | 33% | 13% | 11% | 5% |

Existing area by Facilities Inventory and Classification Manual (FICM)

Academic - 234,896 GSF
FICM Code: 100 Classroom, 200 Labs, 400 Study

Student Residence - 201,602 GSF
FICM Code: 900 Res. (Student) +Paran Creek Apts Included

Faculty & Admin Offices and Support Structures - 78,711 GSF
FICM Code: 300 Office, 700 Support Facilities

Social & Recreational - 72,525 GSF
FICM Code: 500 Special Use, 600 General, 800 Health Centers

Faculty Residence - 32,485 GSF
FICM Code: 900 Res. (Faculty)

Bennington's Unique Program Mix

Comparing Bennington's program areas and existing facilities with peer institutions, we found that the existing square footage per student is higher in all categories than comparable peer institutions (rural, small, liberal arts colleges), most significantly in academic program area. This represents not so much an "excess" of space, but rather the provision for a collection of unique program spaces– from studios to performance spaces– to provide rich resources for exploratory student and faculty work. At the same time, it is also possible to infer that there is room for increased utilization with growth, making the best use of the assets the College has today.

Social and Recreational space is on par with comparable institutions and with increased growth will need to find ways to increase and adapt to student needs, in line with the character of the College. This may not be in large facilities but more sensitive and incremental support of student health and wellness.

Residential space per student is also higher than benchmark partially due to the lower enrollment numbers and also the unique type of housing of small clusters that Bennington employs, overall is less efficient than the standard but part of the identity of the College.
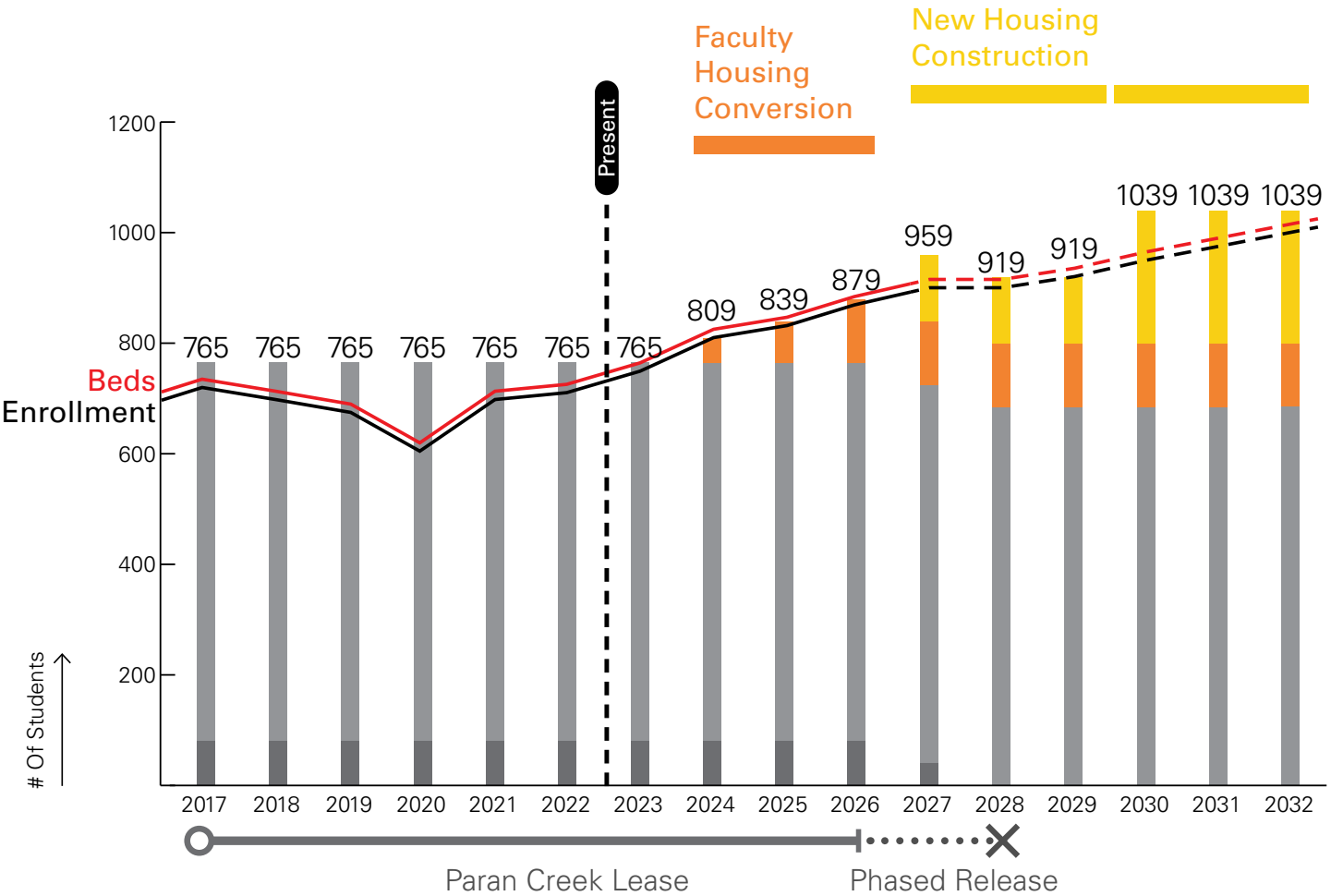
Housing Growth Needed to Keep Pace with Enrollment

The graph above shows the historical and projected enrollment growth over the next ten years. The decline in enrollment in 2020 corresponds with the onset of the COVID-19 pandemic and from this point has rebounded and grown. The College welcomed a robust and diverse class of over 250 first-year students and 18 transfer students in 2022, with the largest enrollment in College history. The College is fielding a record number of student applications from around the world and expects an similar enrollment increase for the next year.

Key to supporting this growth is supporting growth of faculty and staff as well as students. This means expanding support for faculty and staff, including expansion of housing options for recruitment and retention. This report also maps out potential near-term strategies that support long-term, sustainable growth, looking to leverage existing resources while building momentum towards future "big" investments. We also look to create more touchpoints between Bennington and the surrounding community. Through strategic plan initiatives as well as physical planning, identify ways to connect the college more closely to Bennington, North Bennington, and the region.
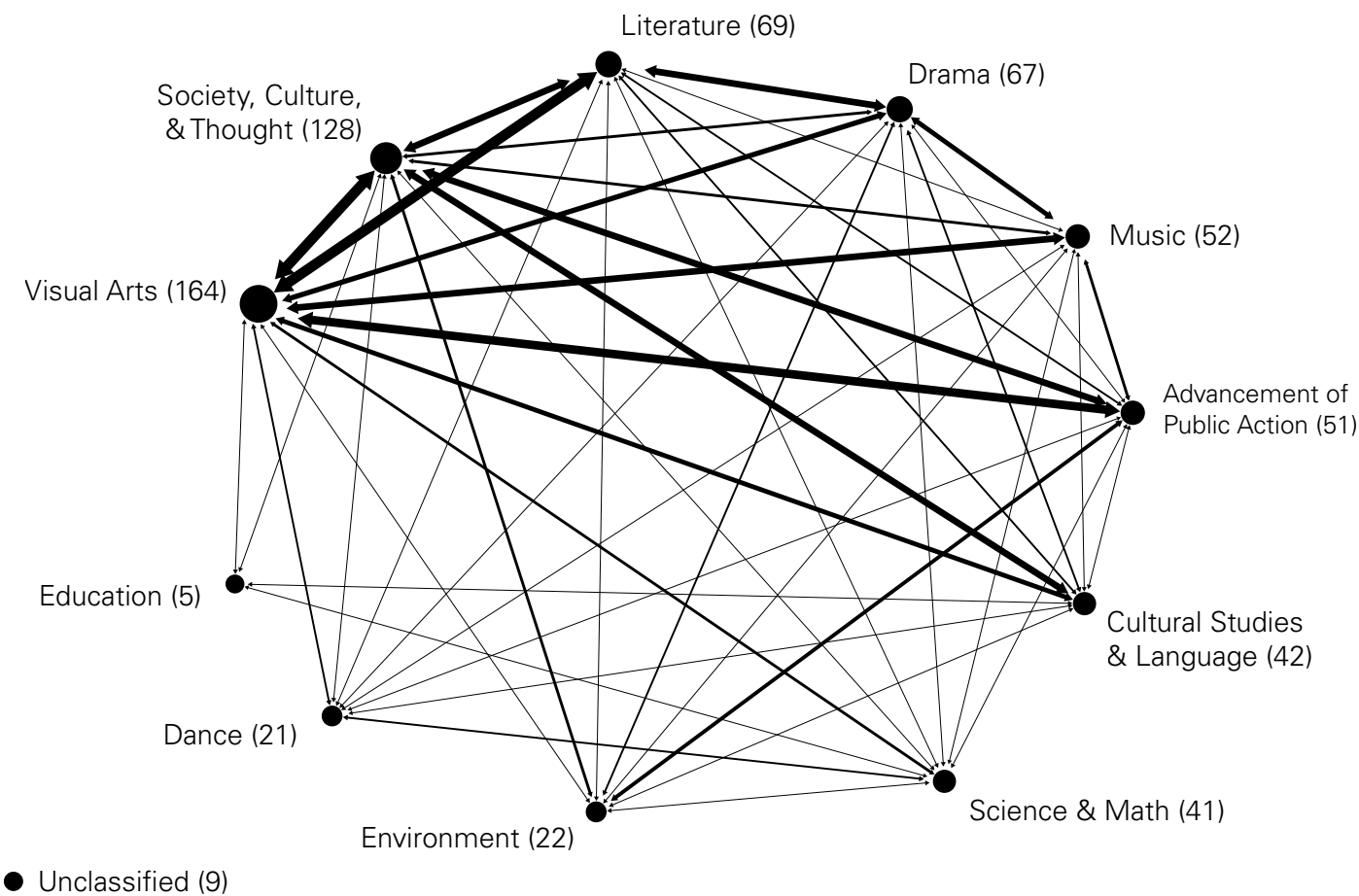
Upholding Bennington's Unique Vision

Literature (69)
Drama (67)
Society, Culture, & Thought (128)
Music (52)
Visual Arts (164)
Advancement of Public Action (51)
Education (5)
Cultural Studies & Language (42)
Dance (21)
Science & Math (41)
Environment (22)

● Unclassified (9)

Diagram based on student specialization data of graduates from Dec 2019-June 2022

Cultivating Cross-Disciplinary Learning and Community Bonds

One of the key defining features of Bennington is the individual shaping of The Plan, an individual course of study and practice that goes beyond the bounds of a traditional major. This takes shape through one-on-one academic planning and graduate-style advising.

Visualizing the field of studies of recent Bennington graduates reveal dynamic cross-disciplinary learning. To the right is a diagram of student specialization data from the past three years showing the many ways in which territories for study are broken down and re-combined.

How can the campus reflect and support the multifaceted ways students live and learn?

Many of the academic spaces need to support certain concentrations of study and have specific space and technical needs. Other spaces need to be more flexible, to support cross-disciplinary encounters in support of advancing each student's Plan.

Housing also is integral to this cross-disciplinary collaboration and a tradition of mixing both class years and fields of study fosters learning from one another. With additional enrollment growth and housing clusters it is critical to continue fostering a closely connected community.

Design Principles

Make the most of what we have—adapt & enhance what is existing before expanding

Identify, preserve & strengthen the qualities that contribute to Bennington's sense of place

Foster environments where everyone can feel a sense of belonging—promoting community through space, removing barriers to access

Create a living planning tool that can evolve & continually refine all parts of campus

Framework 1: Increasing Mix of Uses & Strengthening Connection to the North

North:
51,000 SF building
46 Beds

South:
563,000 SF building
755 Beds
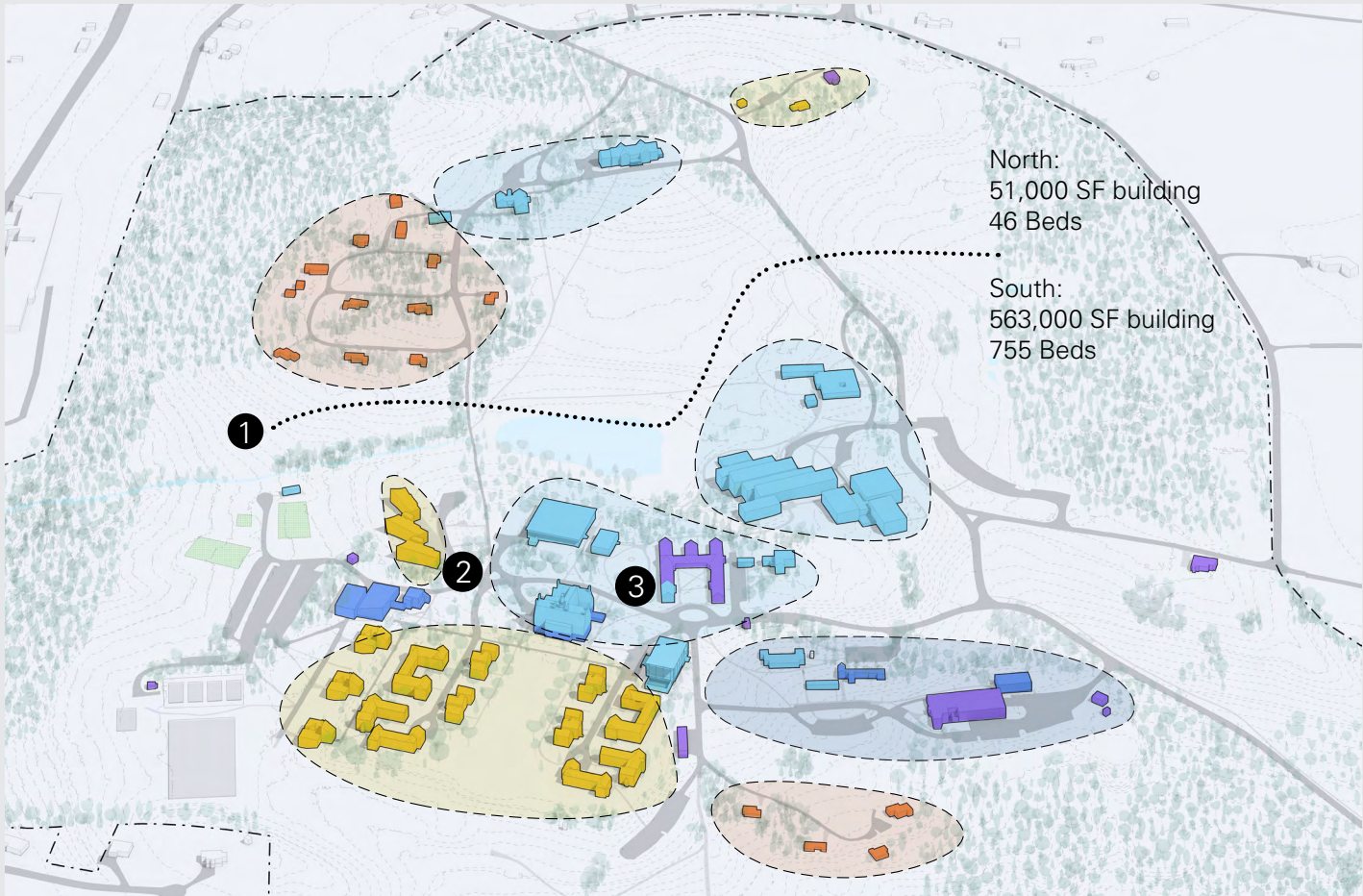
Today

The first campus-wide framework that emerged from this study related to the balance between the north and south campus, breaking down distinct program clusters which have developed over time. Through creation of a more accessible and activated circulation connection– or "spine"-- at the western portion of campus, growth can support and break down these divides physically and programmatically. Increased mixed-use programming within and across buildings and spaces is key to supporting cross-disciplinary learning and the overall Bennington mission.

1. Imbalance between south and north campus
2. Separate housing clusters and student life hubs
3. Recent mixed-use hubs of Commons and the Barn
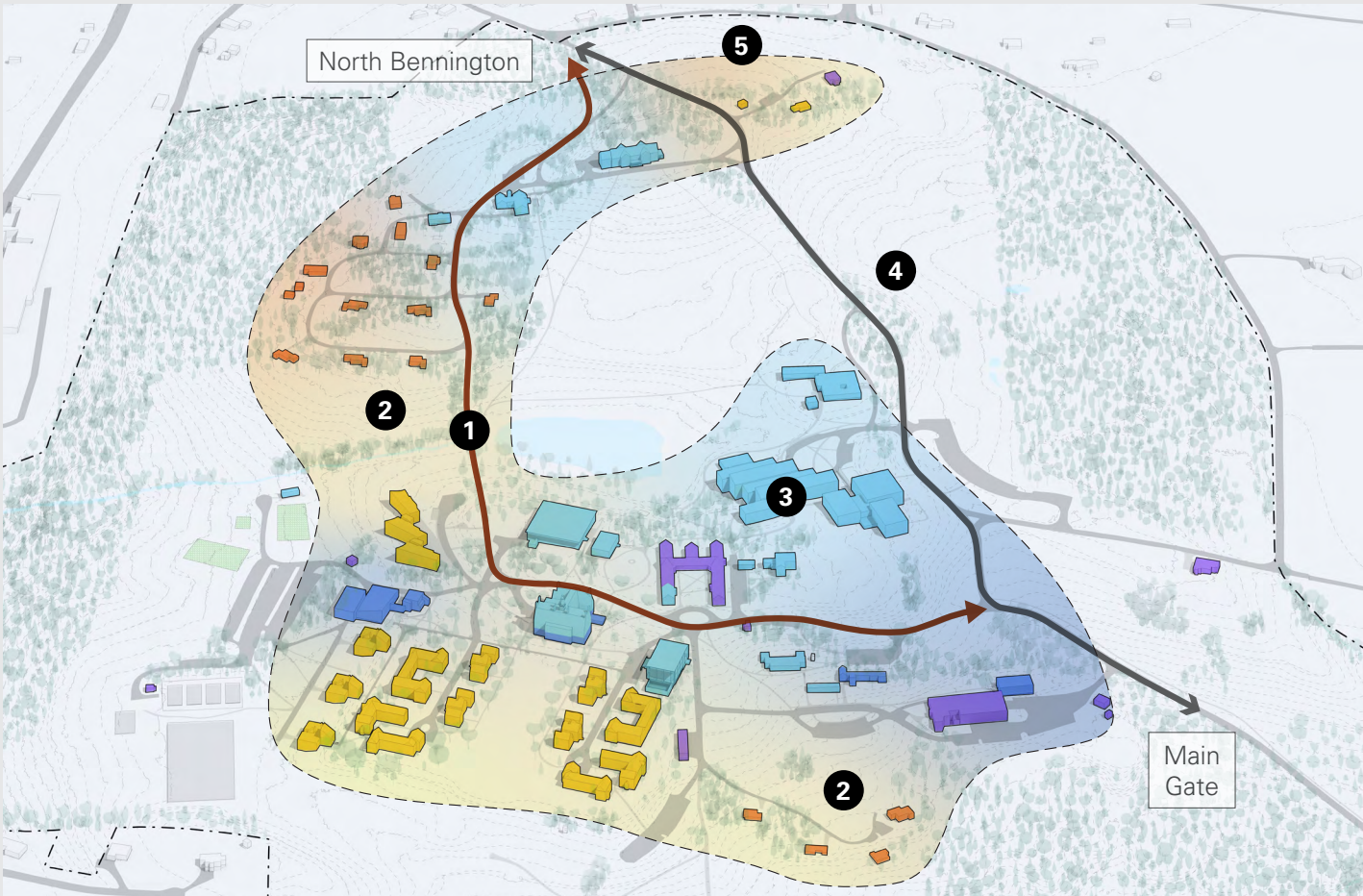
Tomorrow

1. Create west spine with a mix of uses linking south and north
2. Connect residential conversions and additions through student life and academic components
3. Increase utilization of academic buildings with social spaces and classroom upgrades
4. Enhance east spine for bicycle and shuttle local and regional connections
5. Potential development on North Bennington edge, faculty housing and hybrid spaces

Living (Student)
Living (Faculty)
Learning
Shared Spaces
Systems & Support

Framework 2: Connecting the Campus Landscape to Support the College's Mission

Today

From a larger landscape lens, the north and south "imbalance" of the present-day campus also represents an experience of the landscape with distinct precincts. There is a high utilization of the campus core at the south, but minimal usage of trails and other campus landscape. Thinking of the entire landholding as the campus landscape, programs from housing to academic to wellness uses can link to the environment and support the varied ecosystems on campus.

— The landscape is one of the College's most important assets
— Distinct north/south precincts
— High utilization of campus core, low utilization of peripheral landscape
— Ecologically sensitive landscape (woodland and wetlands) in declining health
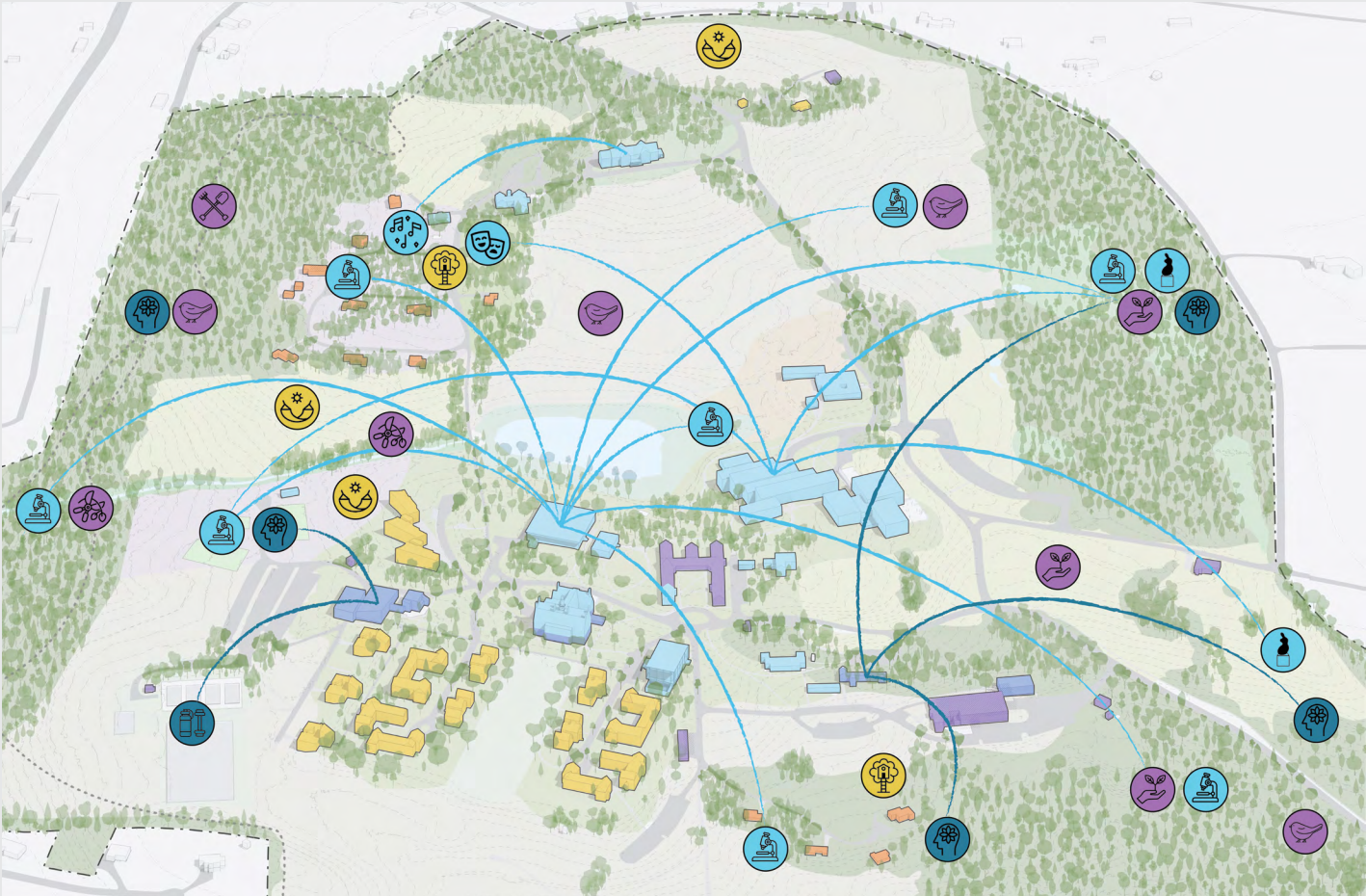
Tomorrow

— Entire landholding should be thought of as campus landscape
— The landscape can more directly support College's Mission, its community, and the environment

Legend:
- Living (Student)
- Living (Faculty)
- Learning
- Shared Spaces
- Systems & Support

Framework 3: Extending Infrastructure to Engage Locally, Regionally, and Globally
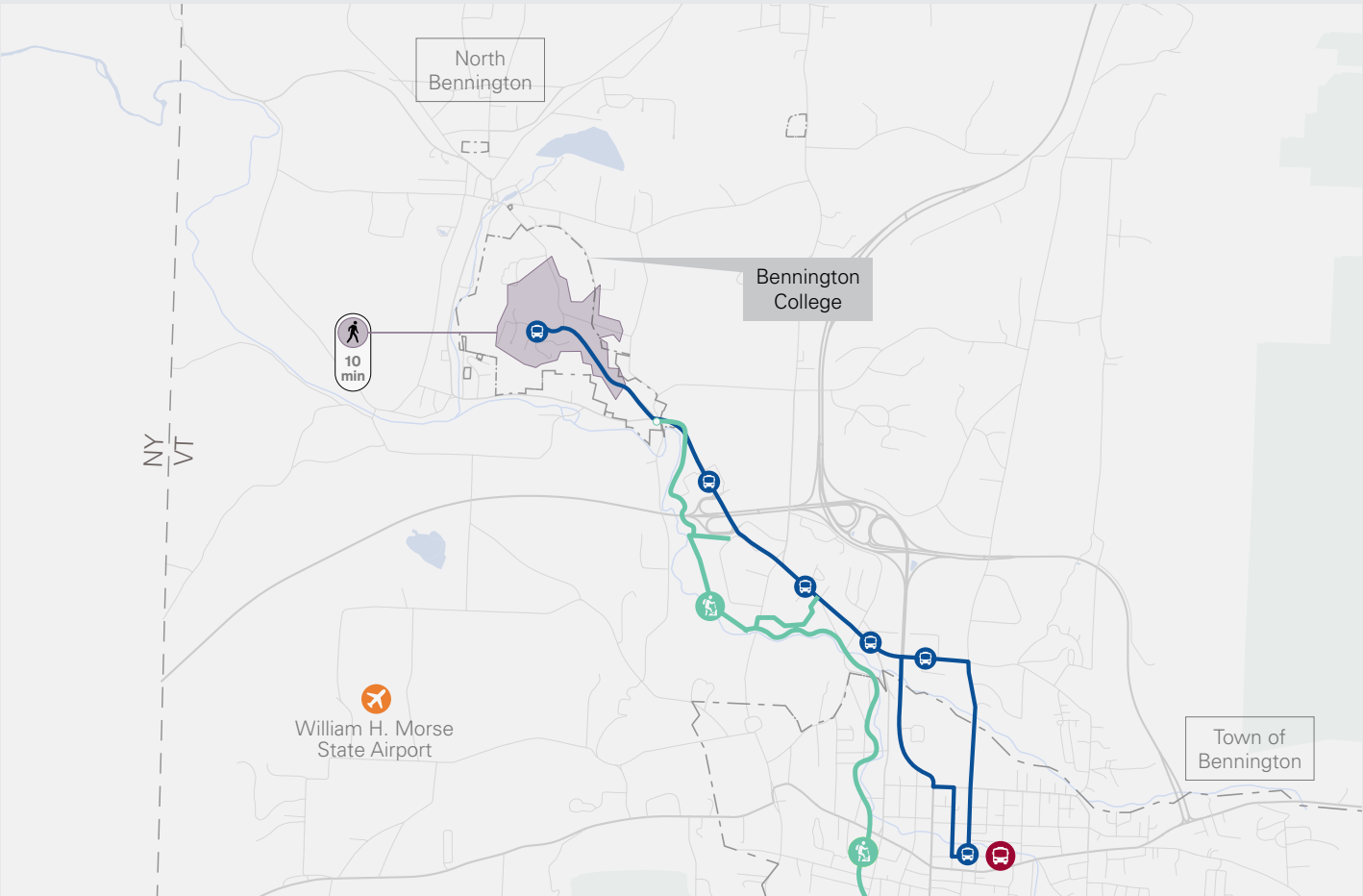
Today

Looking beyond the bounds of the campus, the team heard robust feedback about ways to link the College to resources around and mutually support adjacent communities. North Bennington seems physically distinct today but easily accessible with greater walking, biking, and potential direct shuttle connections through the north gate. Providing electric bicycle access on campus could also shorten the perceived distance from grocery and shopping venues recently linked through an extensive local bicycle network.

— Limited connections to North Bennington, Town of Bennington, and further destinations, primarily by car and shuttle
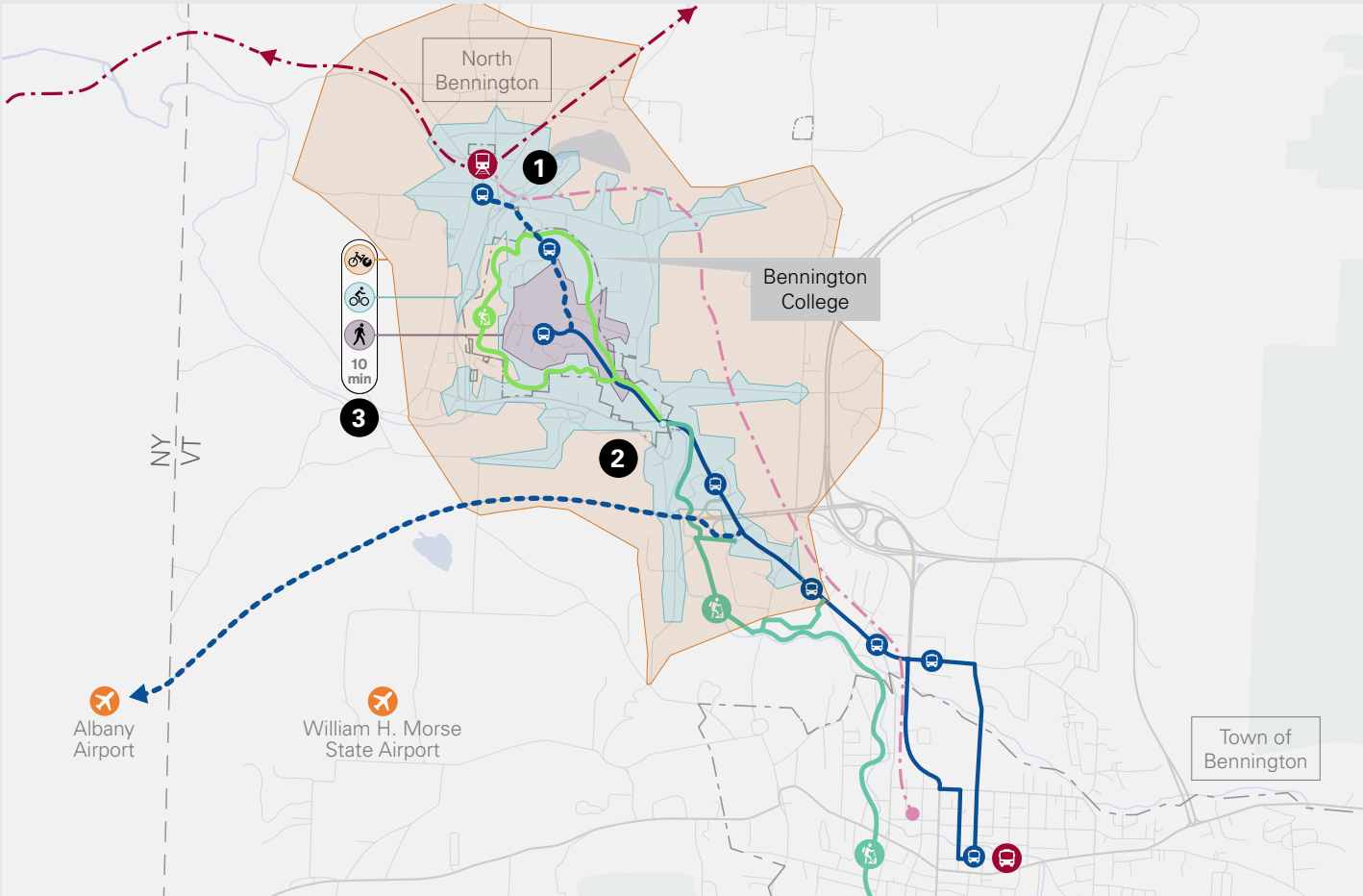
Tomorrow

1. Improve accessibility and multiple mobility options to North Bennington
2. Enhancements with main entrance roundabout construction
3. Clarifying shuttle and bicycle connections, longer-term support of regional train and airport opportunities

Legend

- Road
- Freeway
- Existing Local Path
- Potential Path Expansion
- Existing Regional Railway
- Unused Rail Connection
- Existing Local Bus Route
- Potential Bus Route Expansion
- 10 min Walkshed
- 10 min Bikeshed
- 10 min E-Bikeshed

ii.   Key Elements

This section outlines six key elements of the College's physical plan from larger circulation and ecosystems to how buildings interact and operate. Our working group topics revolved around these elements and feedback from both small group discussions and the campus-wide survey directly shaped both the values and recommendations for each.

With each of the elements we start by distilling key engagement themes and the values that emerged. A summarized version of our initial analysis follows framing issues and opportunities. A spread with recommendations closes the section on each element, strategies which combine to form projects and initiatives in the next section.

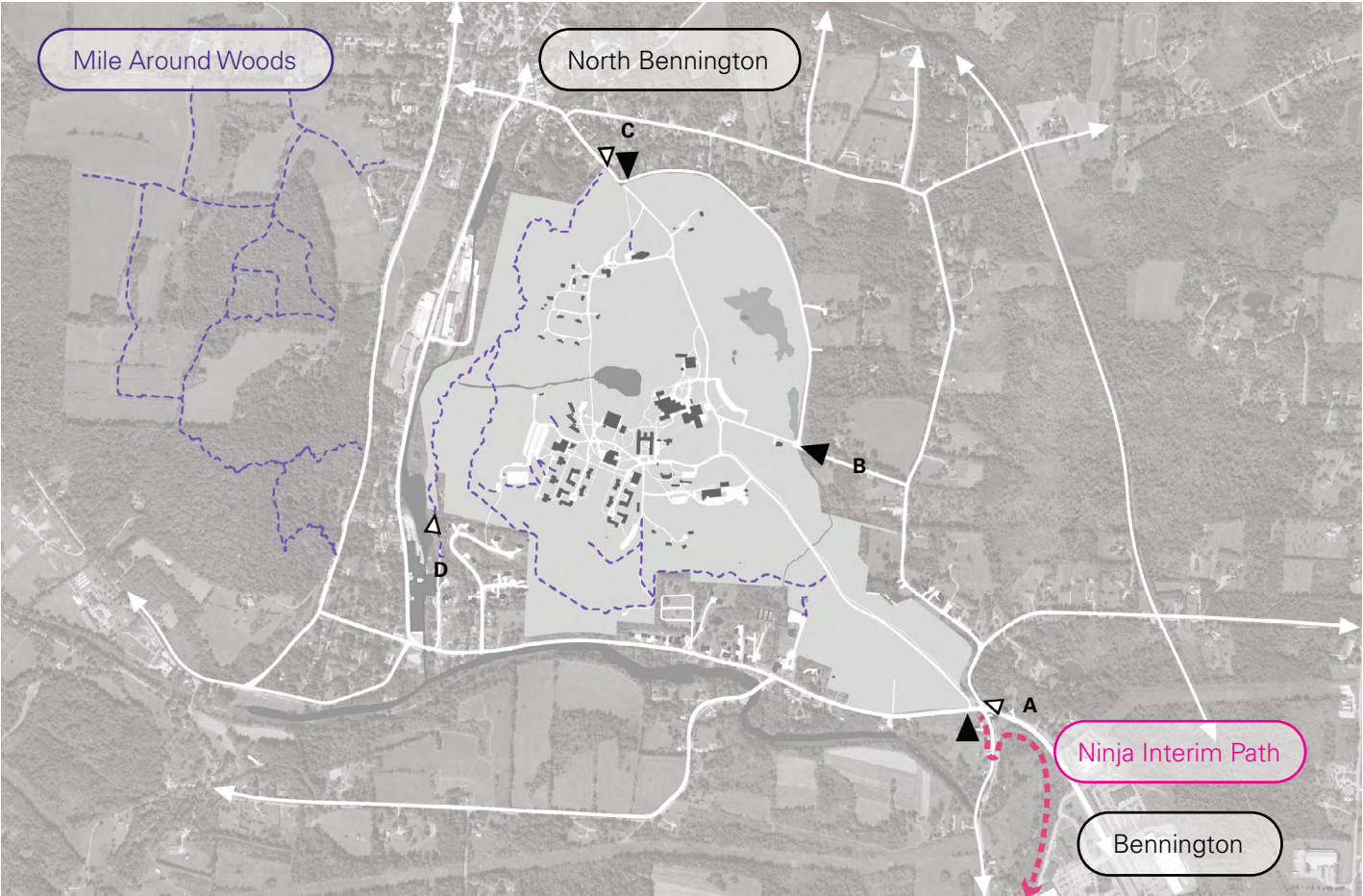# Key Elements

Movement

Engagement Feedback

Movement to and through campus has been described by College community members as discontinuous for pedestrians, disconnected from the local community, and—particularly in winter or at night—dangerous. A well-connected Bennington College will prioritize pedestrians over vehicles, complete path networks to expand accessibility, and create welcoming thresholds that engage visitors and residents alike.

A greater focus on bicycles, especially through the installation of bike stands outside all academic buildings, and hopefully pressure on the towns to improve their bike infrastructure would go a long way.

I love walking in nature, along the road and in the meadow between the pond and Jennings is my favorite. I love the large old trees and the fields where you can watch wildlife. The campus provides a landscape for reflection and communing with nature and a break from the stress of work or academic life.

I think expanding our shuttle service would be good for kids who don't drive.

Bike path that safely connects the campus to downtown Bennington.

Lights going up to Jennings would be nice, but that's also hard because maintaining natural darkness is important.

Wayfinding for visitors is not clear. How do we create an ah-ha arrival moment of campus?

I often use the existing trails through the forest and meadows for field work term, or leading students around.

Bike path that safely connects the campus to downtown Bennington; the current one is in process but parts feel unsafe or are very muddy with downed bridges.

I really really wish there were more shuttle rides to places in nature, or places other than the grocery store and town.

Driving up that long road makes you feel like you're entering a secret part of town, which in some ways you are.

Better lighting, painted lines in the road and along shoulders, emergency phone boxes.

Jennings Road feels dangerous, especially at night…Pedestrians are often trying to exist in a space not meant for pedestrians.

Trails for nature walks are great. I don't know if there are ways to expand the trails in the woods around campus (blue trail) to increase the distance to a couple/few miles.

Values & Principles

Connect the Campus to the greater community, region & globally

Create overall sense of arrival & distinct thresholds at campus edges, & in the campus interior, that celebrate the College character

Clarify campus circulation, making wayfinding legible for residents & visitors

Make campus safer & more accessible for pedestrians & those with varying mobility, throughout the day & across all seasons

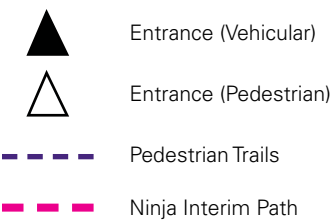Improve walkability & navigability towards a more legible campus

Movement   Analysis

A1) Main Entrance

A2) College Drive

A3) Decision Point

A4) Campus Safety

A5) Cricket Hill Parking

B) East Entrance

C) North Entrance

C) Prospect Street Trail

Need to Improve Connections to the North & South

The towns of Bennington and North Bennington continue to grow and expand their network of bike infrastructure, and the campus must provide opportunities to connect to this network and provide safe ways for students, faculty, staff, and visitors to access the campus on bike and foot.

The existing thresholds of Bennington College are quiet and unassuming, with the rural drive defining the character for vehicular travel. These thresholds are the first point of contact for prospective students and visiting neighbors, and important passages for students and faculty to access resources and experiences off-campus.

▲   Entrance (Vehicular)

△   Entrance (Pedestrian)

- - -   Pedestrian Trails

- - -   Ninja Interim Path

Unclear Arrival Sequence & Barriers to Entry

Studies have shown that the average prospective student makes their decision within the first few minutes of arriving on a campus. The existing arrival sequence for a new visitor remains unclear, with decision points not clearly marked, a campus safety booth that unintentionally functions as a welcome center, and parking scattered in the core of campus. This sequence of experiences, as one working group member described, "leaves the majority of visitors without an ah-ha moment."

Some key questions addressed through engagement:

— In the arrival experience, what is working and what is not working?
— What is the arrival experience we want visitors to have?
— Does more consideration need to be given to the east or north entrances?
— How are the footpaths working today? How do most people get around, or want to get around?

Movement   Analysis
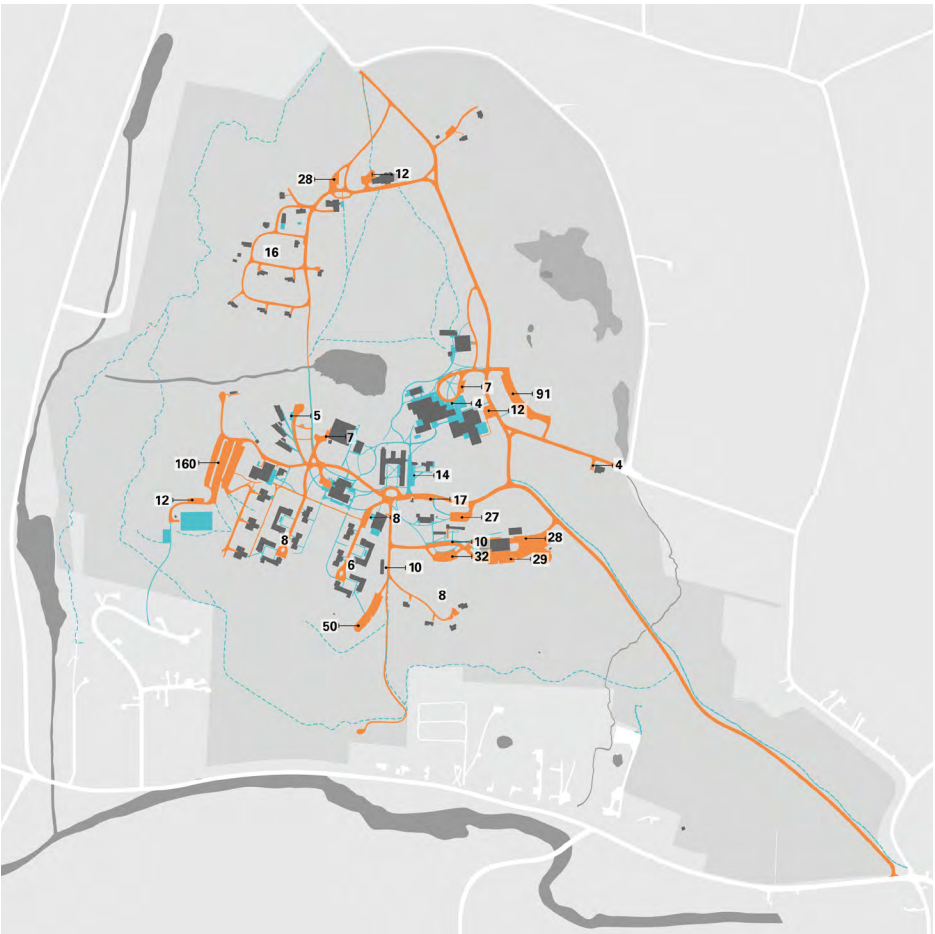
Car & Pedestrian Conflicts

The existing campus circulation is largely defined by the interaction between cars and pedestrians. While pedestrians are limited in their access to paths and between buildings, vehicles are allowed in the majority of campus—although they're mostly going to parking.

Can we create a more pedestrian-oriented campus, which accommodates vehicles, and not the other way around? Can we consolidate parking to the edges? Can we envision a loop road that eliminates vehicles from the campus core?

▬	Vehicular
▬	Pedestrian
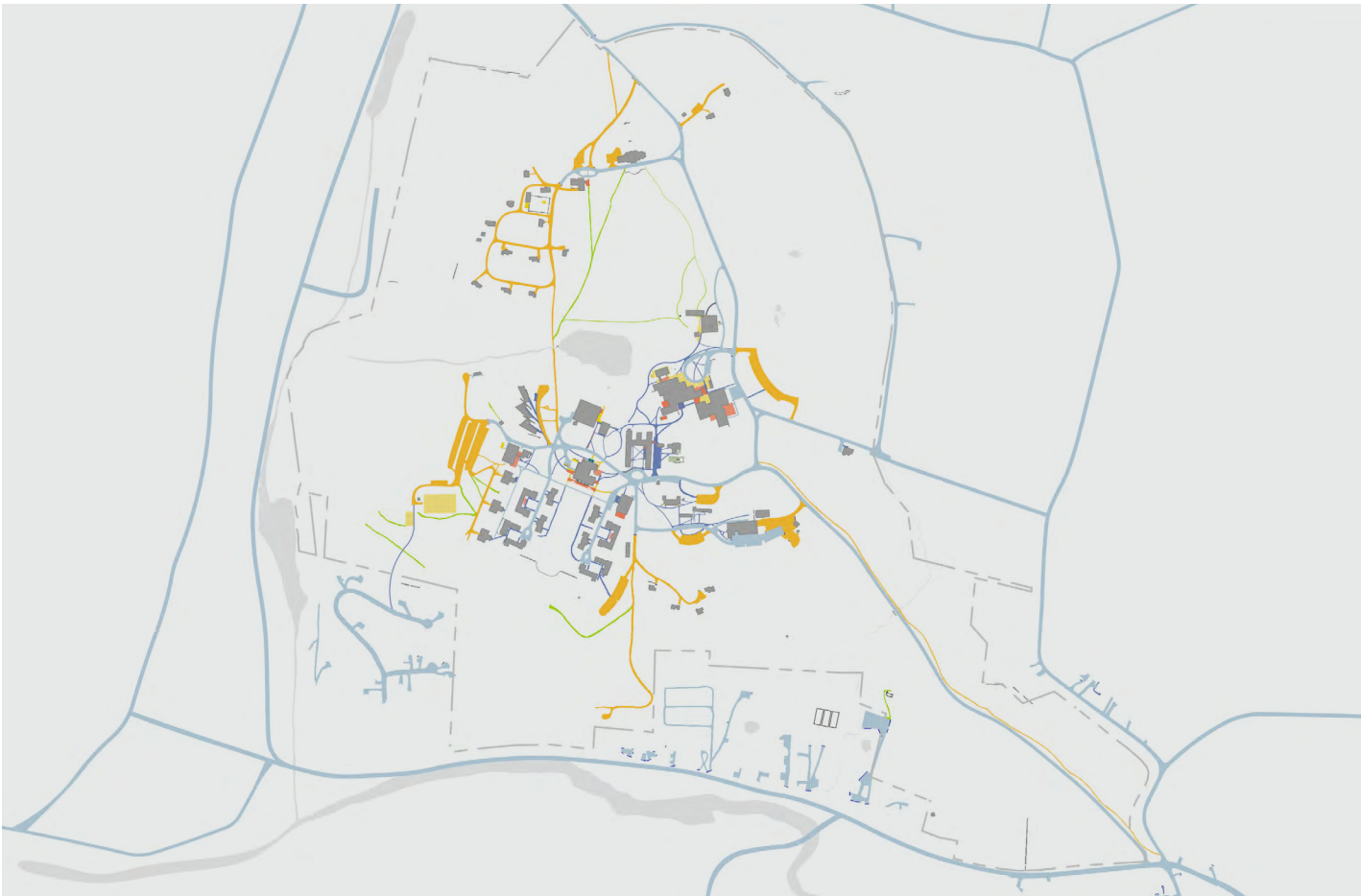
Lacking Pathway Accessibility & Hierarchy

As a result of the many eras of construction and the considerable expanse of the campus, there are many instances of conflicting circulation—whether the conflict is a vehicular road with no clear pedestrian accommodation (such as the drives leading from south campus to north campus), a paving material that is considered inaccessible by ADA definition (such as gravel or mown paths), or a pathway that doesn't fully connect to to a wider network (such as the Woo Houses or forest trails).

▬	Asphalt - Drives
▬	Asphalt - Primary Paths
▬	Gravel and Stonedust
▬	Brick
▬	Concrete
▬	Stone and Unit Pavers
▬	Meadow Paths

Movement   Recommendations

Support Pedestrian, Bicycle & Shuttle Infrastructure

The College has an opportunity to prioritize pedestrian infrastructure, increase access to bicycles, and support low-carbon movement.

— Separate modes of travel, clearly define lanes for cars on larger roads, provide a generous buffer between roads and campus paths, mark designated crossings
— Expand bikeshare with electric bikes, repair stations, bike parking, and learn-to-bike programs
— Ensure that in-campus bike routes connect to the larger network of bike lanes
— Provide shuttles for College community access between campus and important destinations and towns

Improve Gateways & Arrival Experience

Rearranging certain elements of the current arrival experience—such as relocating parking and decoupling Campus Safety from a welcome site—and ultimately creating an intentional first experience of Bennington College, will improve the legibility of the College for all visitors.

— Introduce designated Welcome Site, relocate safety booth
— Create dedicated pedestrian paths from parking to arrival area
— Create new views ("aha moment")
— Introduce protected outdoor gathering spaces as part of admissions and tour experience

Better Connect West & North of Campus

The north and south precincts of today's campus are distinct from one another. Through academic programming, landscape maintenance, and residential support, it is possible to create a unified, whole, campus.

— Enhance primary western pedestrian path, with lighting, accessible paving/ seating, careful drainage, and landscape nodes
— Manage invasives for views north and south
— Bolster the landscape character and health
— Study the strategic opening of the north gate
— Complete trail network along campus perimeter
— Site future buildings with an ecological and cultural sensitivity

Create a More Walkable & Navigable Campus

The patterns of circulation that exist today are a result of several factors, including the prioritization of the vehicle and the assumption that cars should be able to access the entirety of campus.

— Create a coherent and cohesive loop road
— Relocate parking out of campus core
— Design paths primarily for pedestrians which also accommodate emergency and service vehicles
— Expand pedestrian network beyond core
— Enhance accessibility through materials, consideration of slopes, adequate lighting, seating, and emergency call boxes

Landscape

Engagement Feedback
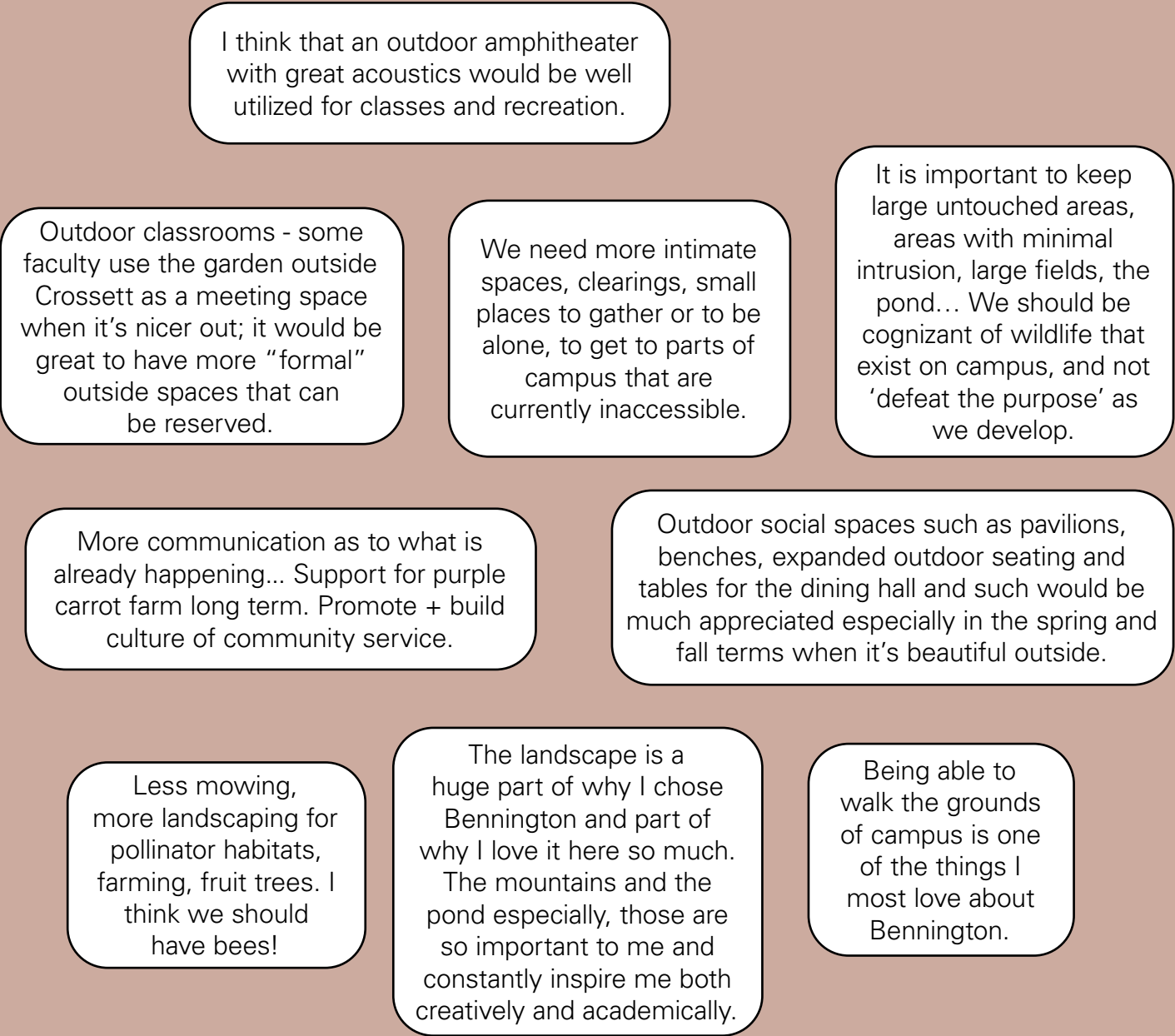
The Bennington College Community has affirmed that the ability to immerse oneself in a landscape of this size and character, to be in "nature", as one of the most valued aspects of the campus. The Framework Plan recognizes management of the campus' ecological resources is not only essential to the longevity and resilience of the campus itself, but will allow the College to provide benefits felt far beyond its bounds.
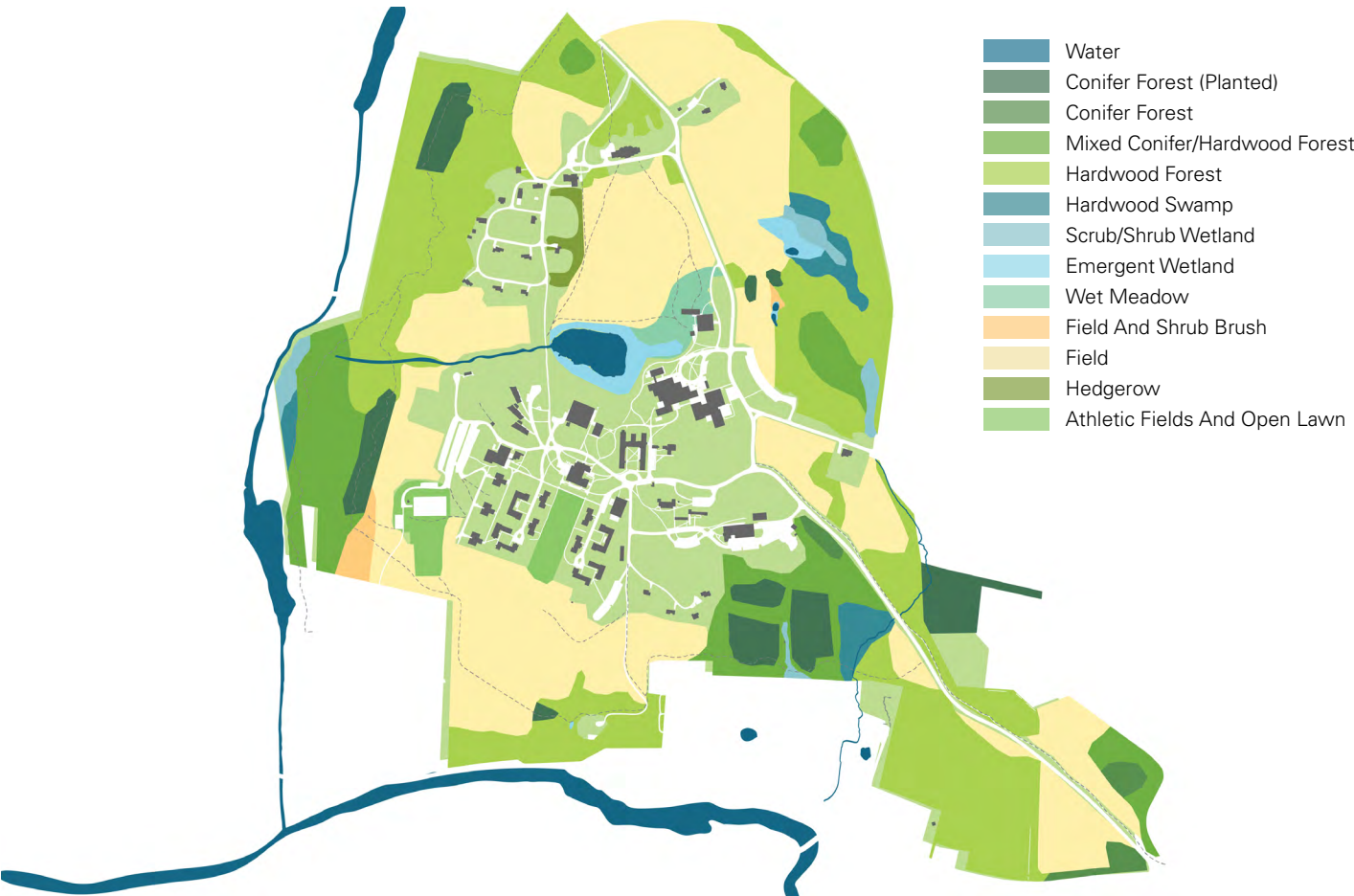
I think that an outdoor amphitheater with great acoustics would be well utilized for classes and recreation.

It is important to keep large untouched areas, areas with minimal intrusion, large fields, the pond… We should be cognizant of wildlife that exist on campus, and not 'defeat the purpose' as we develop.

Outdoor classrooms - some faculty use the garden outside Crossett as a meeting space when it's nicer out; it would be great to have more "formal" outside spaces that can be reserved.

We need more intimate spaces, clearings, small places to gather or to be alone, to get to parts of campus that are currently inaccessible.

More communication as to what is already happening… Support for purple carrot farm long term. Promote + build culture of community service.

Outdoor social spaces such as pavilions, benches, expanded outdoor seating and tables for the dining hall and such would be much appreciated especially in the spring and fall terms when it's beautiful outside.

Less mowing, more landscaping for pollinator habitats, farming, fruit trees. I think we should have bees!

The landscape is a huge part of why I chose Bennington and part of why I love it here so much. The mountains and the pond especially, those are so important to me and constantly inspire me both creatively and academically.

Being able to walk the grounds of campus is one of the things I most love about Bennington.

Values & Principles

Utilize entire land holding in service of College Mission & campus life

Manage campus landscapes with an eye towards climate change resiliency, sustainability & conservation of resources

Make campus safer & more accessible for pedestrians & those with varying mobility, throughout the day & across all seasons

Clarify campus circulation, making wayfinding legible for residents & visitors

Create overall sense of arrival & distinct thresholds at campus edges & in campus interior, that celebrate the College character

Landscape Analysis

Legend:
- Water
- Conifer Forest (Planted)
- Conifer Forest
- Mixed Conifer/Hardwood Forest
- Hardwood Forest
- Hardwood Swamp
- Scrub/Shrub Wetland
- Emergent Wetland
- Wet Meadow
- Field And Shrub Brush
- Field
- Hedgerow
- Athletic Fields And Open Lawn

Campus Pond

Managed Woodland

Fringed Gentian

Campus Wetlands

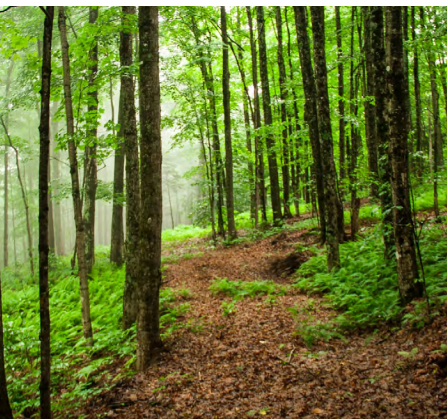Paran Creek

Little Brown Bats

Diverse Campus Ecologies & Needs

We are at a pivotal moment in the ecological life of the campus. In many ways, Bennington College has been at the forefront of sustainable maintenance practices, eschewing traditional landscape management practices in favor of adapting the campus to its context (examples include forgoing irrigation, regenerating meadows, and performing manual invasive removal instead of chemical). However, its management and maintenance must continue to improve and adapt or it will not survive as we have known it for the last hundred years.

Issues of aging woodlands, decreasing plant diversity, increasing invasives and deer browsing, and the pressures of a warming climate threaten this resource. Important ecologies are aging without a reliable way to renew. With 9 distinct ecological typologies and numerous distinct "character zones" within, the campus is a precious habitat for plants and animals. With 440 acres overall, of which 128 are forested and 105 are fields, it is also critical infrastructure for climate change readiness, with the power to contribute to both flood management and water quality benefits, and to capture carbon and mitigate warming.
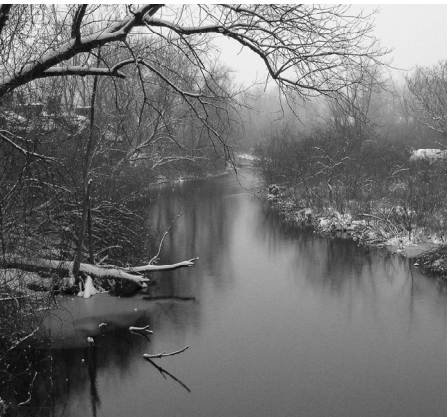
Existing Sensitive Ecologies

The abundance of deer and invasive species is limiting natural tree regeneration and over the long-term will limit structural and age class diversity, climate resiliency, and wildlife habitat. Invasive species out-compete and reduce native tree regeneration and the abundance and richness of other native flora, and are generally of lower palatability, hence are often avoided by browsing deer. This selective browsing is encouraging invasive plants while reducing and, in some areas, eliminating young tree regeneration, native shrubs, and herbs throughout campus.

The College's fields have the potential to provide good pollinator habitat. High quality pollinator habitat has herbaceous vegetation in various stages of regrowth, including recently mowed areas with young, succulent herbs and grasses; less frequently mowed areas with a mix of older grasses and herbs; and even less frequently mowed areas with a mix of old field grasses, herbs, and young shrubs. One key plant which was observed is the fringed gentian (Gentianopsis crinite). This is an uncommon plant in Vermont, and was last observed by or reported to the state's botanist in 2012.

Paran Creek has recently been elevated to high priority habitat, and the campus has an opportunity to protect and invigorate this watercourse from its upstream location.

Landscape   Analysis

Water Management Needs

The aquatic and associated riparian, wetland, and floodplain habitats along Paran Creek are modeled as a highest priority surface water and riparian habitat in the Vermont Conservation Design (Sorenson and Zaino., 2018). As it flows through campus, Paran Creek and its riparian areas are likely to be used by upland species, provide essential habitat for aquatic and wetland species, wildlife movement, plant dispersal, and ecosystem services. These functions are best maintained when waterways and wetlands are lined by diverse, forested riparian areas and when waterways are unconstrained by roads, houses, and other forms of development. Compared to the surrounding landscape, Bennington College's riparian areas are well forested, unconstrained, and diverse.

Varied Maintenance Practices

Bennington College has historically done a good job of maintaining campus using low-energy and low-impact means and methods (for example, forgoing traditional irrigation). The College has also demonstrated dedication to supporting the character and ecology of the campus, adjusting maintenance regimes to benefit the flora and fauna that make up the campus (such as adjusting the mowing schedule of the fields to accommodate bird nesting seasons).

— Trail system: Best management appeared to be limited or lacking on some stream crossings, wetland/wet area crossings, and sloped trail sections
— Composting: The College does not yet have composting systems for food waste and large scale maintenance waste (such as plant clippings)

Landscape Analysis

Regenerate & Diversify Woodlands

Approximately 128 of Bennington College's 440 acres are forest. Tuning maintenance practices will help support growing these ecosystems.

— Increase forest structure, age-class diversity
— Encourage a diversity of tree species that are suited to the site's current and future
— growing conditions
— Encourage and protect existing tree regeneration, including seedlings and saplings, smaller pole-sized midstory trees
— Establish and protect new tree regeneration
— Minimize the impacts of invasives and deer on forest regeneration
— Consider increasing connectivity between largest forest patches at north end of campus

Protect Ecologically Sensitive Areas

Climate change is altering the synchrony of plant flowering and pollinator emergence. Having a diversity of pollinators on site maximizes the chance that plants have a suitable pollinator even if the plant flowering or insect emergence changes.

— Rethink lawns
— Increase diversity
— Plant for climate resiliency
— Use a varied, delayed, and rotational mowing regime to maintain diversity of field habitats
— Resurvey and manage for fringed gentian

Collect, Clean & Infiltrate Water

Bennington College has a unique opportunity to utilize its campus landscape to assist in the implementation of integrated stormwater management strategies.

— Pursue and implement strategies from sustainable design/wellness benchmarking systems
— Use methods of diversion, direction, and dispersal, to manage and clean stormwater runoff from buildings and paved areas
— Consult the Bennington College Stormwater Infrastructure Mapping Project (Oct 2017)
— Consider the Three-Acre Rule for stormwater that will impact landowners with more than three acres of land

Advance Campus Maintenance

Campus landscape maintenance has been in many ways ahead of its time, and can continue to be on the cutting edge through the fine tuning of existing regimes and the introduction of new regimes:

— Renew: Commit to growing nursery stock (trees and shrubs) on campus to support forests and meadows
— Reduce: Phase out gas-powered machinery where possible
— Re-use: Compost maintenance trimmings, and use felled trees for their wood or habitat construction where possible

Sustainability

Engagement Feedback
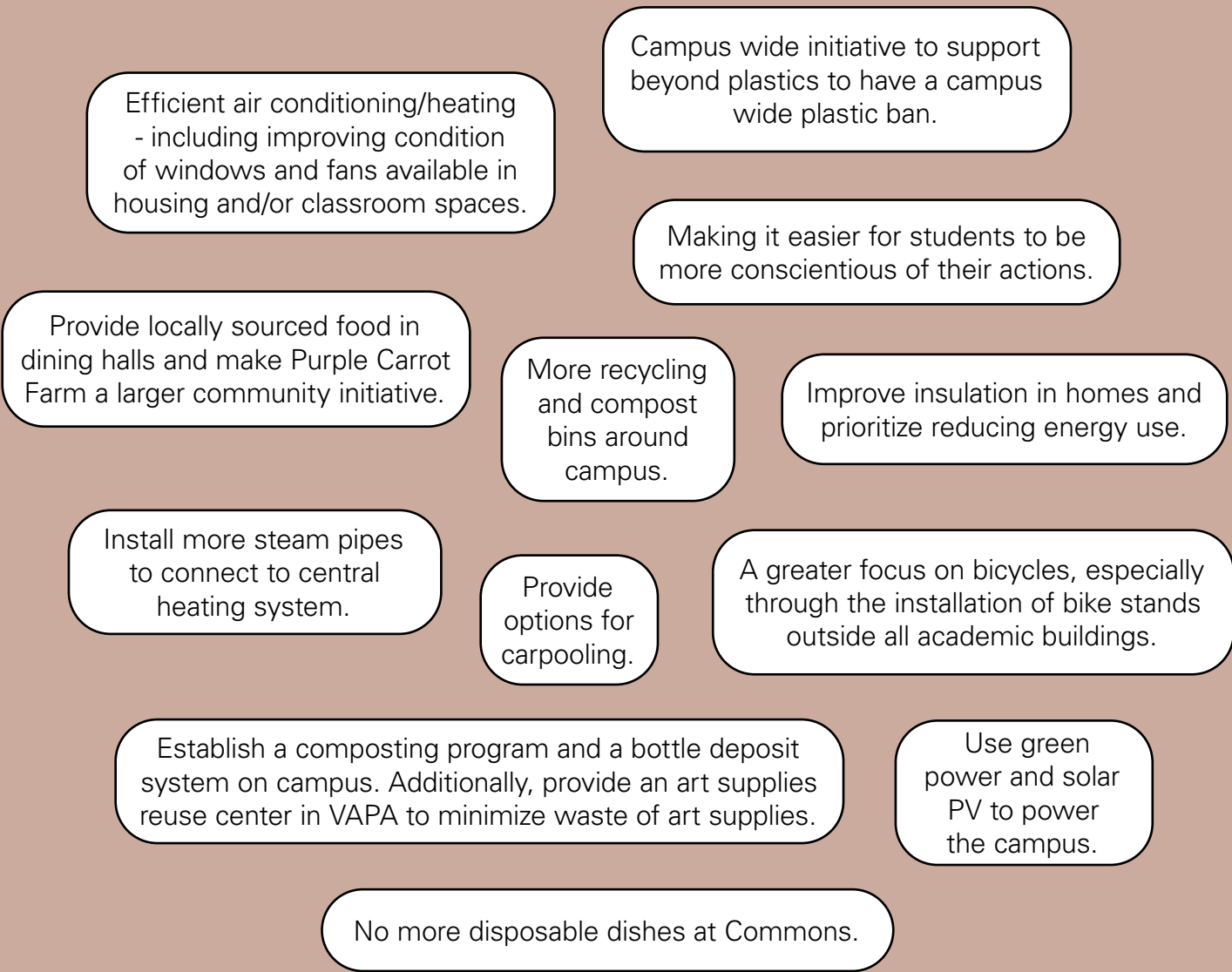
Bennington College has been a leader in sustainability, rooted in both the classroom and daily life. Comments were across the spectrum of scales from waste systems to power systems to achieve the commitment to carbon neutrality by 2030. These values and recommendations look to engage the community in active questioning and investigation and continue to push boundaries and link together disciplines and perspectives that are otherwise separated.

Efficient air conditioning/heating - including improving condition of windows and fans available in housing and/or classroom spaces.

Campus wide initiative to support beyond plastics to have a campus wide plastic ban.

Making it easier for students to be more conscientious of their actions.

Provide locally sourced food in dining halls and make Purple Carrot Farm a larger community initiative.

More recycling and compost bins around campus.

Improve insulation in homes and prioritize reducing energy use.

Install more steam pipes to connect to central heating system.

Provide options for carpooling.

A greater focus on bicycles, especially through the installation of bike stands outside all academic buildings.

Establish a composting program and a bottle deposit system on campus. Additionally, provide an art supplies reuse center in VAPA to minimize waste of art supplies.

Use green power and solar PV to power the campus.

No more disposable dishes at Commons.

Values & Principles

Improve the energy efficiency of the campus through on & off site renewable energy

Upgrade electric & water infrastructure to serve more buildings more efficiently

Improve envelopes on existing housing

Provide additional recycling, reuse & compost infrastructure on campus

Provide and incentivize alternate modes of transportation on campus
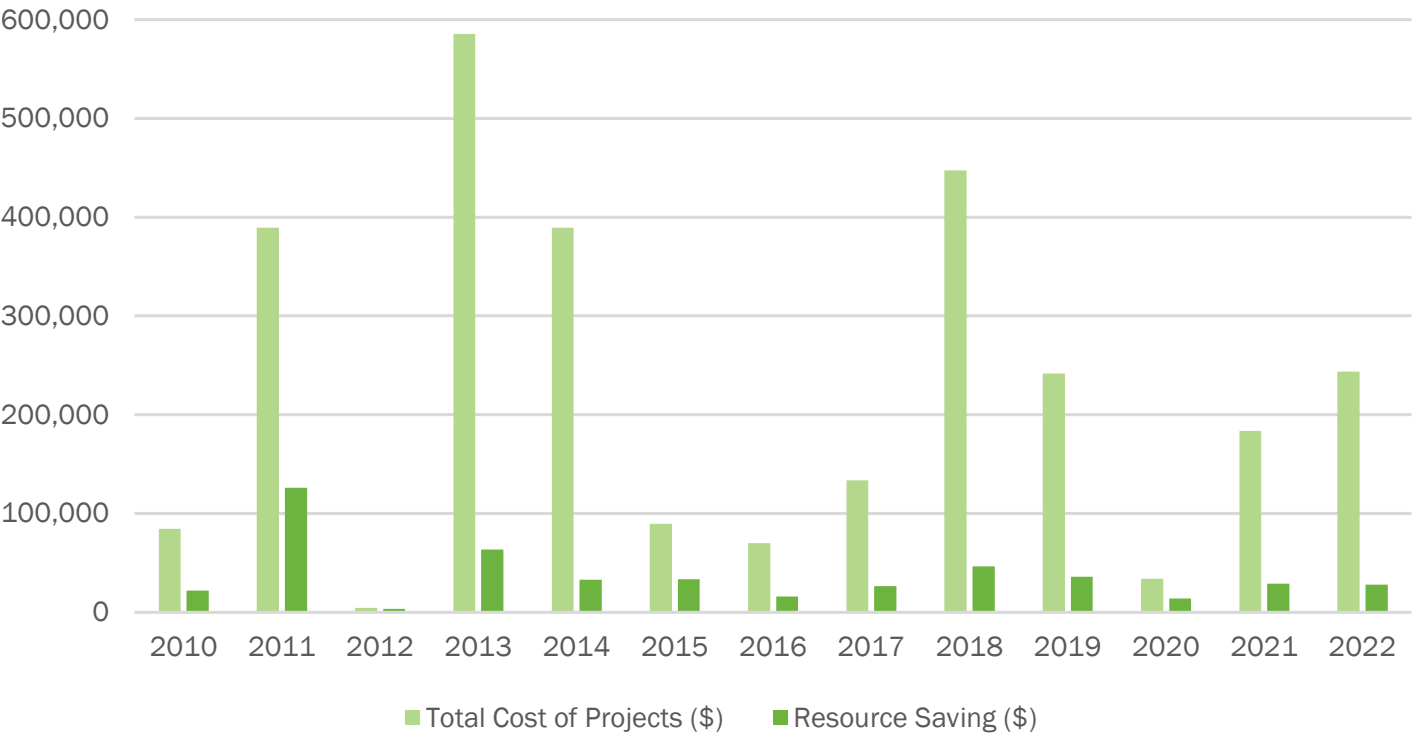
Sustainability Analysis

	Key Goals	Key Accomplishments	Key Challenges
Energy & Carbon	• Develop a greenhouse gas emissions inventory • Reduce emissions from Bennington College fleet and faculty/staff commuting • Install ground source heat pumps or connect biomass plant steam lines to 100% of campus • Improve building envelopes for older, inefficient buildings	• Greenhouse gas inventories were completed from 2004 through 2011 • Signing the American College & University Presidents Climate Commitment (ACUPCC) • Installation of daylight and occupancy sensors in renovated buildings throughout campus • Engaging in a power purchase agreement for 1.5MW of PV solar • Biomass plant producing 85% of the heat on campus	• LEED feasibility was assessed but determined that it is likely too expensive to pursue on a campus-wide level • Due to old buildings on campus lacking significant energy efficiency measures, major renovations may be required to meet carbon reduction goals
Water and Stormwater	• Reduction in total potable water consumption • Installation of low-flow plumbing fixtures during renovation and new construction projects • Implementation of stormwater management and reuse strategies to reduce potable water use for other uses	• Replacement of old fixtures in renovated buildings with low-flow fixtures with sensors • Installation of pervious pavers for new construction • Topography at the End of the World allows for rainwater to be diverted downhill to prevent flooding on campus	• Stormwater reuse infrastructure updates have not been explored in depth • A majority of student housing and older buildings currently have old and inefficient plumbing fixtures • Currently there aren't any percent water use reduction requirements or targets that have been specified by the college
Habitat and Natural Space	• Reduction in water use for irrigation • Removal of parking lot in front of Cricket Hill • Minimize heat island effect with high albedo paving and roofing • Improve biodiversity on campus • Re-grade The End of the World to block view of off-campus construction	• There are lots of green spaces and largely permeable areas throughout the campus • The campus provides a significant open space areas for students and faculty to use	• Logistical difficulties of relocating parking lot and re-grading the End of the World area • Replacement of paving and roofing materials may require significant renovation
Waste	• Target waste diversion in construction and through implementation of additional recycling infrastructure • Composting integration	• Recycling infrastructure present throughout campus	• Integrating composting program and waste diversion/reduction infrastructure into existing buildings

Strong Sustainability Goals

At the start of the Framework project, the team conducted a site visit to assess the current state of buildings on campus and coordinate with team members on the sustainability priorities of Bennington College. Using input from the design team and overarching goals outlined in sustainability documents such as the Bennington Climate Action Plan, the team established a preliminary list of long-term Framework goals.

Long-Term Sustainability Goals:

— Establish a carbon neutral campus by 2030
— Establish a long-term strategic plan for the sustainability components of projects
— Further implementation of flexible load management to look at Bennington College separate from the grid
— Improve the energy efficiency of buildings on campus
— Implement strategies to enhance the health and wellness of campus users
— Development of a template to inform sustainability strategies on future developments and renovation

EFFICIENCY PROJECTS 2010-2022

Legend: ■ Total Cost of Projects ($)   ■ Resource Saving ($)

Atelier Ten also analyzed the typical structure for improvement projects at Bennington College to determine what types of sustainability project recommendations and improvements are feasible and most effective for meeting the college's goals. The scopes of previous efficiency-related projects since 2010 were reviewed and the team coordinated with Bennington College to develop a general set of priorities for future project types. The overall cost of each project was then compared to the estimated resource savings to determine Bennington College's typical annual investment and anticipated returns for efficiency projects.

Priorities for Sustainability Projects:
— Projects that provide funding and incentives through outside organizations such as Efficiency Vermont
— Maintenance projects / building code updates that can be bundled with renovation projects (e.g. The Barn)
— Opportunistically incorporating sustainability related upgrades in projects as they are being worked whenever possible (e.g. implementing sustainability strategies when upgrading life safety measures in Dickinson)
— Envelope improvements on existing buildings
— System updates that are not invasive, generally out of sight, and minimally impact operations (e.g. upgrades to steam lines)

Sustainability Analysis

Aging Building Stock

Existing buildings on campus were categorized into different typologies that represent their use type. Different building typologies use energy, water, etc. differently depending on the equipment and general functions of the space and will therefore have different priorities for sustainability improvement projects. The buildings analyzed in the Framework project are separated into the following building typologies:

— Lab & Research
— Offices
— Academic
— Housing

Within each typology that was established, buildings are further separated into categories based on when they were constructed or received major renovations. The age of buildings typically impacts what sustainability improvements are most critical considering factors like older buildings will usually have low-efficiency insulation and windows. While sustainability improvement recommendations are also provided for each individual building in the appendix, separating the buildings on campus into these categories provides a general template for the upgrades and renovations that should be prioritized based on the type and age of certain buildings.
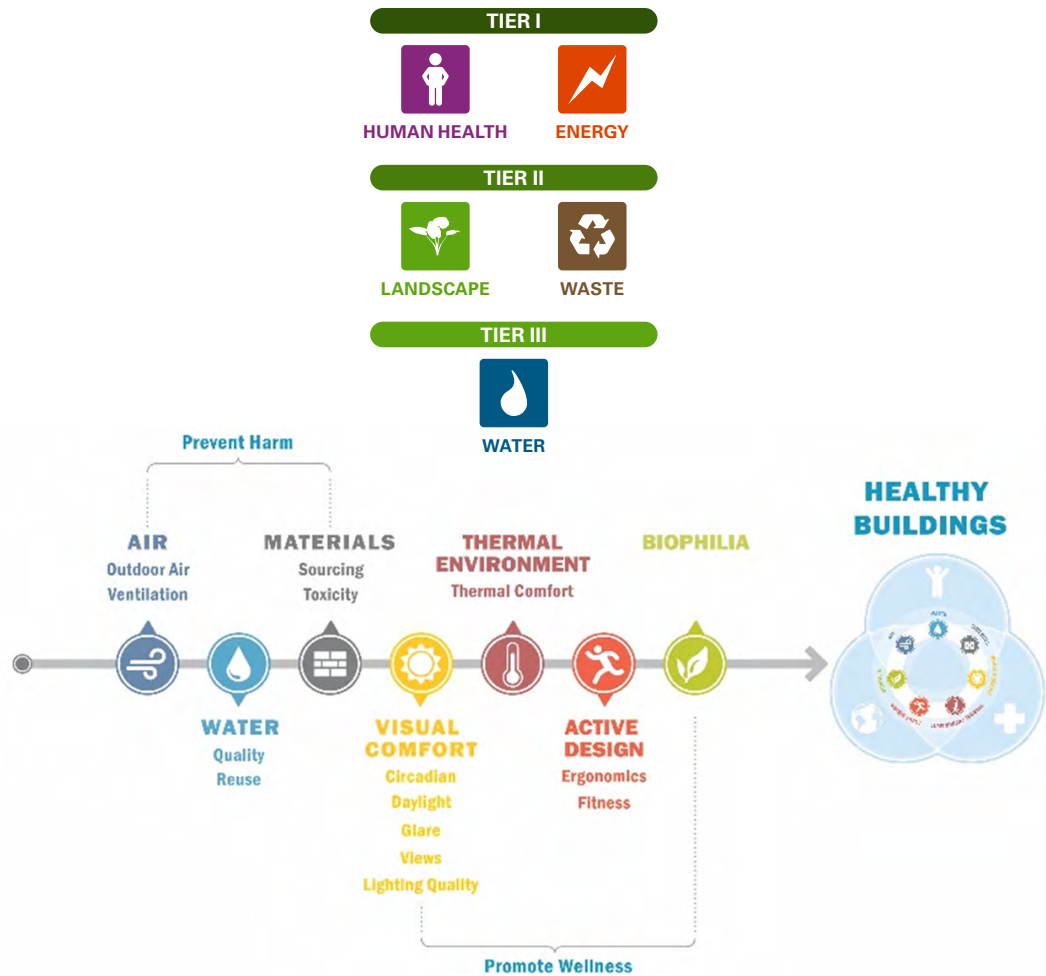
Atelier Ten's analysis of the buildings on campus and the recommendations outlined for each typology also considered topics outside of just energy and water use reduction. In addition to energy and water use reduction, landscape, waste, and human health were also analyzed. Based on coordination with the team, human health and energy efficiency were determined to be Bennington College's top priorities for the Framework project, landscape and waste are medium priorities, and water efficiency is the lowest priority category. Water efficiency was considered to be the lowest priority category based on the availability of water in the area and a lack of opportunity to reduce water use significantly.

Using these categories, campus-wide and individual building strategies were developed based on both the current and anticipated future needs of the campus. A list of key strategies is provided in the Recommendations section of this chapter and outlined further in Projects and Initiatives.

Sustainability Analysis
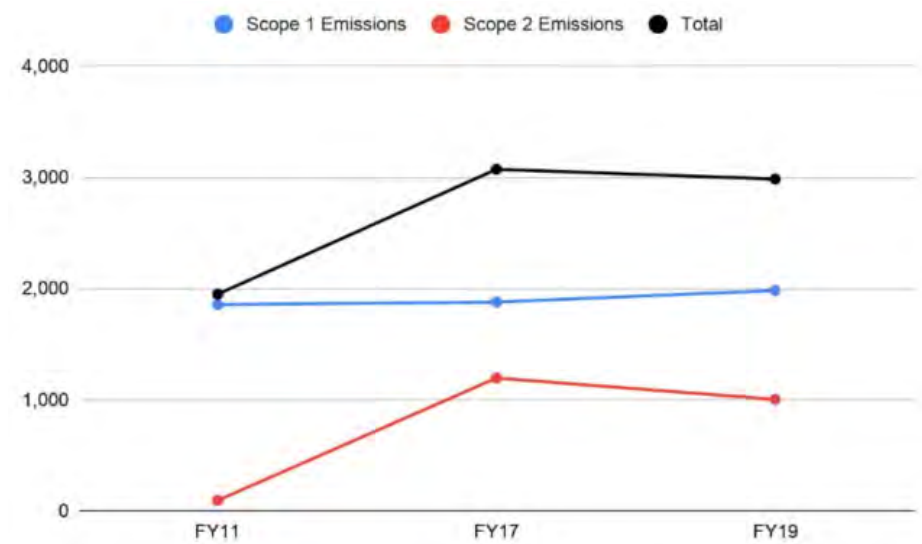
Fuel	Units	Purpose	FY11	FY17	FY19	FY19 vs FY11
Fuel Oil	gal	Heating	83,492	78,257	115,471	+38%
Propane	gal	Heating	17,516	22,675	28,710	+64%
Wood Chips	tons	Heating	5,671	6,603	3,399	-40%
Gasoline	gal	Campus Fleet	11,237	9,004	13,293*	+18%
Diesel	gal	Backup Power	206	280	2,805*	+1,262%

Progress to Carbon Neutrality

Carbon emissions were analyzed for the campus during the initial analysis phase based on Bennington College's goal of establishing a carbon neutral campus by 2030. The most recent carbon emissions data available from 2019 indicates the following main points:

— Scope 1 and 2 emissions made up ~70% of the College's total emissions for FY17
— Scope 2 electricity consumption has increased by 30% since FY11
— Scope 2 emissions increased until FY17 due to GMP Fuel Mix, then decreased in 2019 due to significant investment in renewable energy (Solar Sense) in FY17 and FY18

Using this information, sustainability recommendations included in this chapter largely revolve around reducing carbon emissions and providing mitigation strategies on both an individual building and campus-wide scale. Achieving carbon neutrality is a primary goal for Bennington College, so proposed building upgrades, renovations, and new construction projects must contribute towards reducing carbon emissions. However, implementation of these strategies alone will likely not achieve carbon neutrality by 2030. Bennington College will need to use carbon offsets or additional renewable energy purchases to meet the 2030 goal.
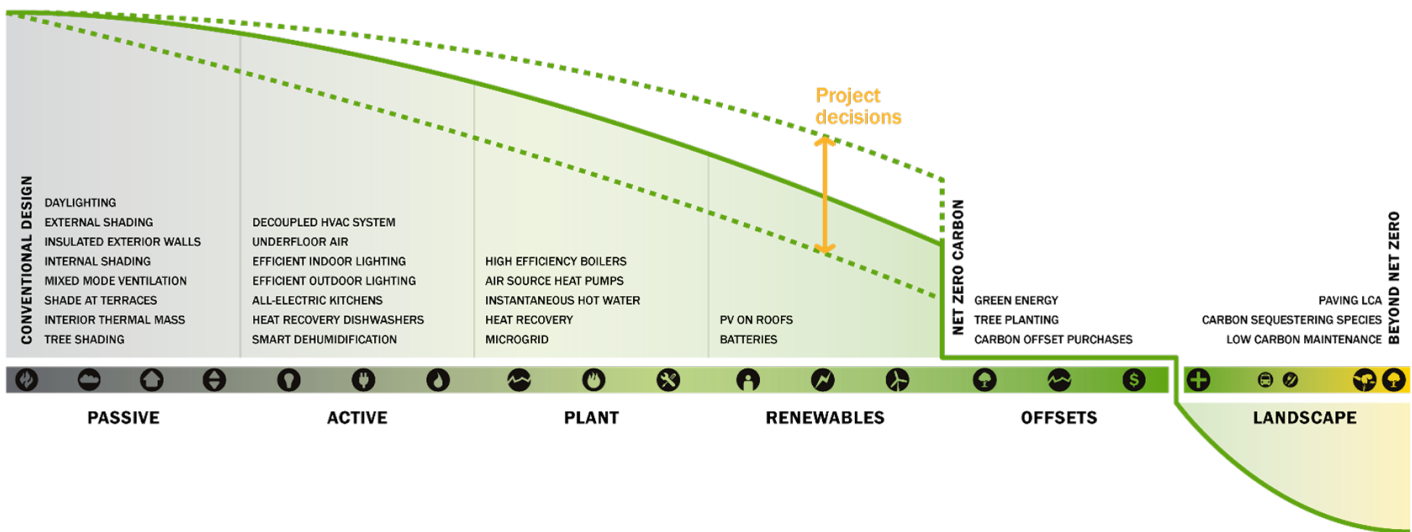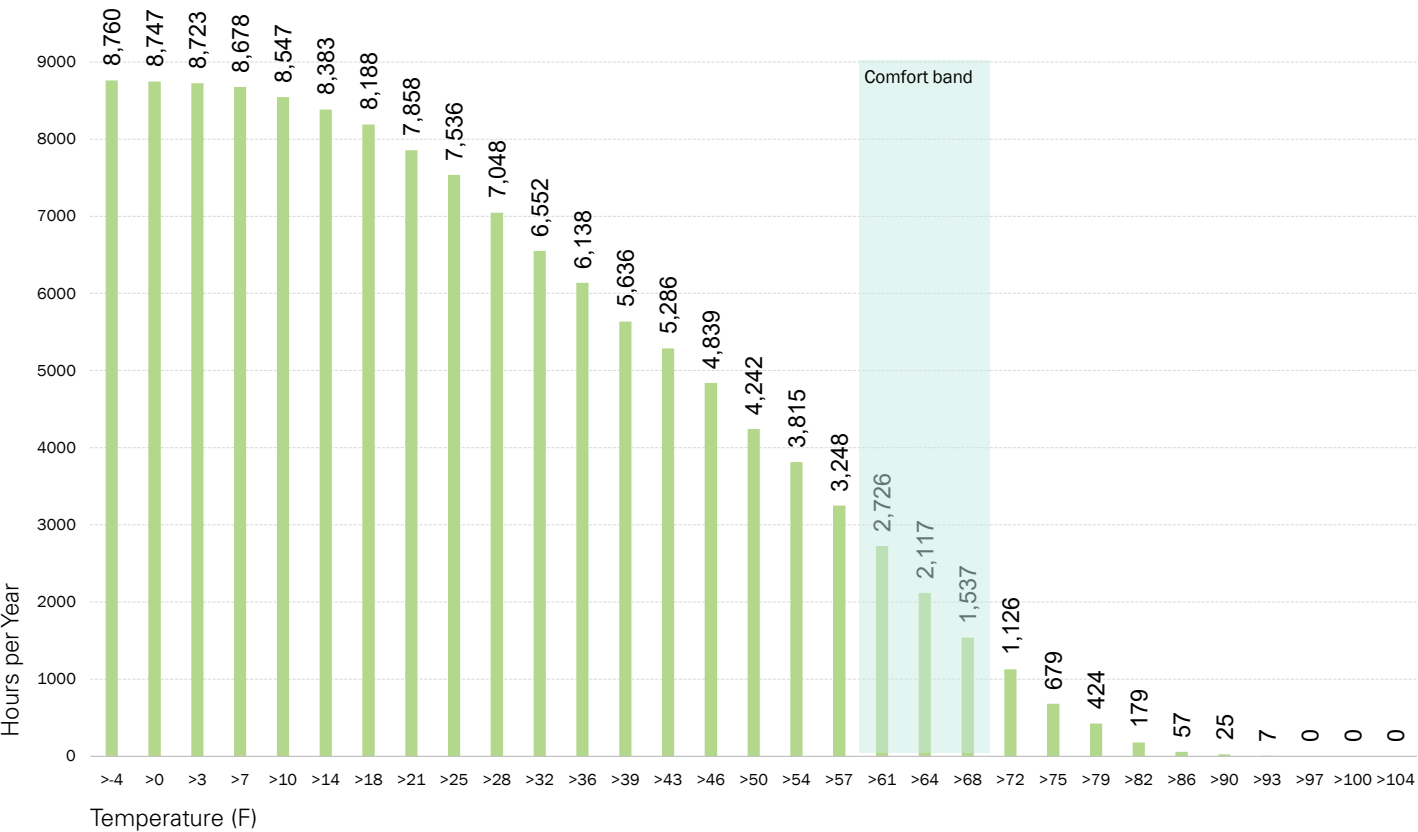

When considering the reduction of carbon emissions, building design and construction is critical to consider in detail for a campus framework project that encompasses dozens of buildings. There are many strategies to combat and reduce carbon emissions that should be considered while coordinating building renovation and construction projects. Recommendations for maximizing the sustainability of individual existing buildings on Bennington College's campus is included in the Appendix of this document, however, general strategies that will contribute to the carbon neutral by 2030 goal are outlined in the graphic below. While implementation of these strategies will help guide the campus towards carbon neutrality, purchase of carbon offsets and renewable energy will likely be required to completely fulfill the 2030 goal.

Passive carbon emissions reduction strategies include designing and orienting buildings to maximize useful daylight for occupants and using tree shading to the project's advantage; while active strategies focus on things like selection of efficient HVAC systems and light fixtures. From there, more impactful emission reduction strategies include implementing heat recovery systems, air source heat pumps, installation of solar PV, and designing landscapes to support sequestration and minimize the need for carbon intensive maintenance. ington

Sustainability   Analysis

Annual Number of Hours Above Temperature (IP)

Hours per Year / Temperature (F)

Values (left to right): 8,760 (>-4), 8,747 (>0), 8,723 (>3), 8,678 (>7), 8,547 (>10), 8,383 (>14), 8,188 (>18), 7,858 (>21), 7,536 (>25), 7,048 (>28), 6,552 (>32), 6,138 (>36), 5,636 (>39), 5,286 (>43), 4,839 (>46), 4,242 (>50), 3,815 (>54), 3,248 (>57), 2,726 (>61), 2,117 (>64), 1,537 (>68), 1,126 (>72), 679 (>75), 424 (>79), 179 (>82), 57 (>86), 25 (>90), 7 (>93), 0 (>97), 0 (>100), 0 (>104)

Comfort band

Heating Dominant Climate

DESIGN STRATEGIES: JANUARY through DECEMBER

%		Strategy
6.5%	1	Comfort(569 hrs)
10.0%	2	Sun Shading of Windows(872 hrs)
4.5%	3	High Thermal Mass(397 hrs)
4.8%	4	High Thermal Mass Night Flushed(418 hrs)
3.1%	5	Direct Evaporative Cooling(269 hrs)
3.8%	6	Two-Stage Evaporative Cooling(337 hrs)
8.6%	7	Natural Ventilation Cooling(755 hrs)
8.2%	8	Fan-Forced Ventilation Cooling(715 hrs)
23.1%	9	Internal Heat Gain(2023 hrs)
9.3%	10	Passive Solar Direct Gain Low Mass(817 hrs)
6.3%	11	Passive Solar Direct Gain High Mass(549 hrs)
4.3%	12	Wind Protection of Outdoor Spaces(375 hrs)
0.0%	13	Humidification Only(0 hrs)
3.7%	14	Dehumidification Only(321 hrs)
2.1%	15	Cooling, add Dehumidification if needed(181 hrs)
52.7%	16	Heating, add Humidification if needed(4618 hrs)

100.0% Comfortable Hours using Selected Strategies
(8760 out of 8760 hrs)

As part of the initial analysis phase, a climate analysis was conducted to gain information about the precipitation, humidity, wind, air temperature, and incident radiation at Bennington College. The information gained from the climate study was then used to provide general building upgrade recommendations for the region to maximize wise use of our limited natural resources and ensure a comfortable environment for students, faculty, and staff.

The climate study found that for approximately 68% of the year, Bennington College is below the thermal comfort band, indicating that it is a heating dominant climate. As a result, applicable building design strategies include using passive solar heat gain and ensuring that building envelopes are air-tight and well insulated to reduce heating loads.
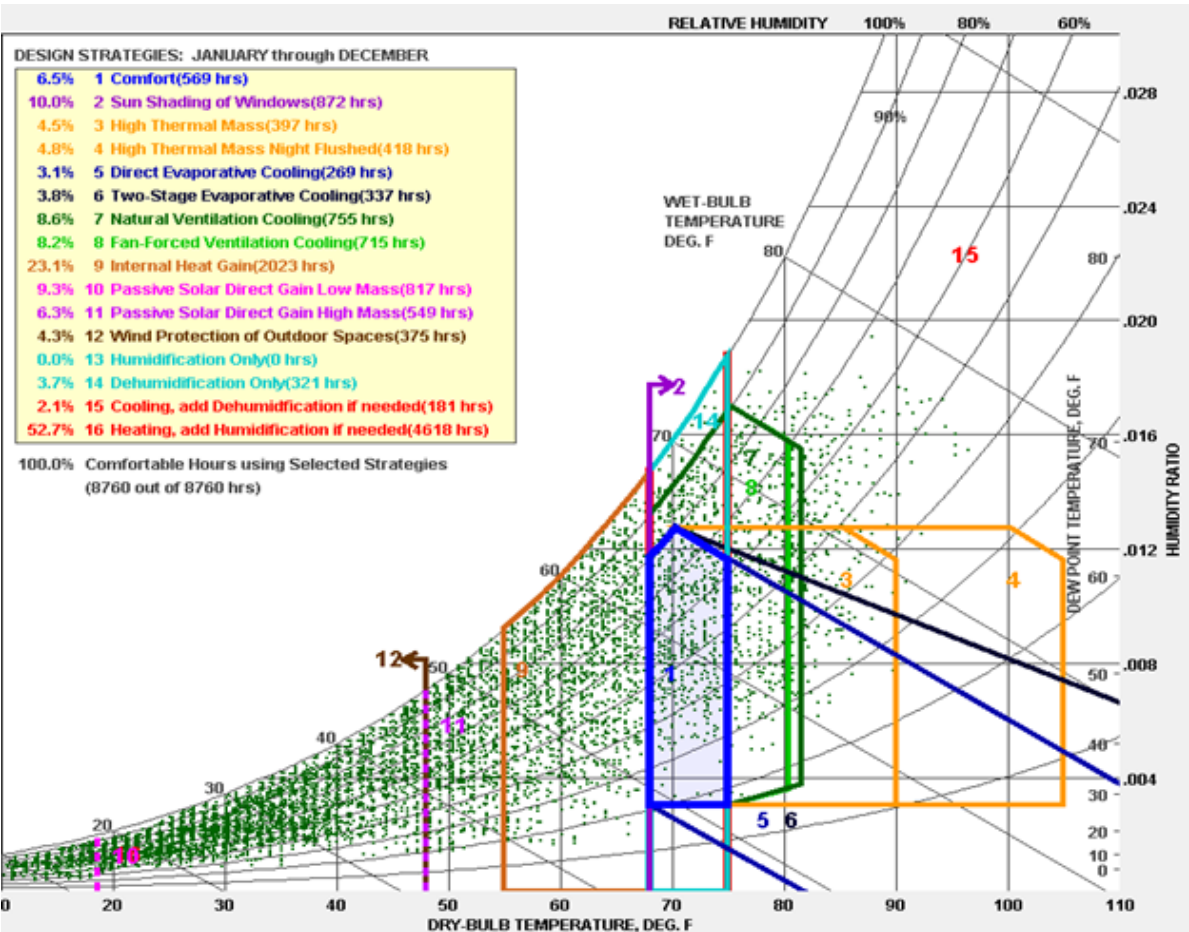
The climate was then further analyzed to assess occupant comfort based on the temperature and humidity data for the site throughout the year. Comfortable temperature and humidity ranges were determined by using standards outlined by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE). Based on the comfort zone outlined in blue in the graph below, only 6.5% of the year (570 hours) is within the comfort zone where no cooling or heating is needed.

Using this data, various building design strategies were identified to increase the annual comfort hours. Implementation of all of the following strategies result in improving the annual comfort hours from 6.5% to ~50% of the year.

— Maximizing internal heat gain (~2,000 hours)
— Natural ventilation cooling (~750 hours)
— Passive solar direct gain low mass (~800 hours)
— Sun shading of the windows (~900 hours)

Sustainability

Recommendations

Expand Renewable Energy Infrastructure

Campus energy is largely generated from locally sourced woodchips in the award-winning biomass steam plant, which has led to significant savings both in energy cost and in the campus' carbon footprint. However, most buildings that are not connected to the steam plant are heated by individual oil boilers, replacement of which should be a target for future energy and resource savings. Additional renewable energy is possible through on-site solar generation such as over parking lots or a percentage commitment for off-site renewable energy. Additionally, access to EV charging stations, electrifying the campus fleet, and support of bicycle infrastructure can substantially reduce vehicle emissions.

Improve Building Performance

With the aging building stock, existing buildings on campus lack significant energy efficiency measures and major renovations may be required to meet carbon reduction goals. Recommendations are detailed per building in the appendix and include:

— Provide envelope upgrades to buildings that are lacking insulation and have inefficient single-pane windows
— Eliminate CFC refrigerants
— Install ground source or cold weather heat pumps
— All electric buildings for new construction and renovations, explore appropriate renewable technologies

Create Healthier Environments

In support of human health and wellness on campus, the interior environment is key along with promoting active movement through the buildings and campus.

— Specify materials with recycled content and EPDs indicating global warming potential
— Specify materials with low VOC contents and emissions testing
— Reduce indoor and outdoor water consumption by limiting irrigation and installing efficient plumbing fixtures.
— Specify all LED lighting and ENERGY STAR equipment, especially in high traffic areas. Continue to install occupancy and daylight sensors in academic buildings

Living

Engagement Feedback

One of the most important aspects of the Bennington experience is the system of houses, clusters that define a sense of community and break down the boundaries of year or field of study. Feedback strongly represented maintaining this ethos from scale to common spaces while providing for more flexibility in accommodation from room types to food and lifestyles.

It would be nice to have more options where students can share housing as well as food, lifestyles, and housing needs.

Can we welcome the faculty row houses back into the campus?

How do we design flexibility to meet changing needs? Can we design a building that can be reconfigured to suit families or multiple faculty?

Not enough room for the people we love the most - our housekeepers!

For faculty, it is immensely helpful to have housing that one can settle in during the first three years or so. The rental market in the Bennington area is very difficult. When I was on the job market, having the ability to rent an on-campus house was a substantial draw for me towards this job.

Whoever designed the Colonial Houses probably wanted to live there, and put a lot of thought into those who do - for them to be able to do everything you could want to in a living space, other than eat, sleep, and study.

There is something to be said for steps within housing - living with a roommate, living in a suite with a common area, living in an apartment, etc. so that students can mature through different types of housing arrangements.

The houses form a nice community rather than regular dorm style. I like the size, that it's small enough to know everyone you live with and that there is a diverse number of different housing styles.

I think there should be designated, established themes like quiet houses, substance free houses, community oriented houses, outdoor adventure house.

The founding idea of Bennington was for the campus to be a community...many people would live where they worked, and that would help build solidarity, buy-in, and a shared vision.

The residences are all rather inaccessible, the heating is finicky, the houses get too hot in the summertime.

Values & Principles

Maintain ideal clusters of 30-40 students, woven on-campus

Implement dispersed methods of supporting all students & lifestyles

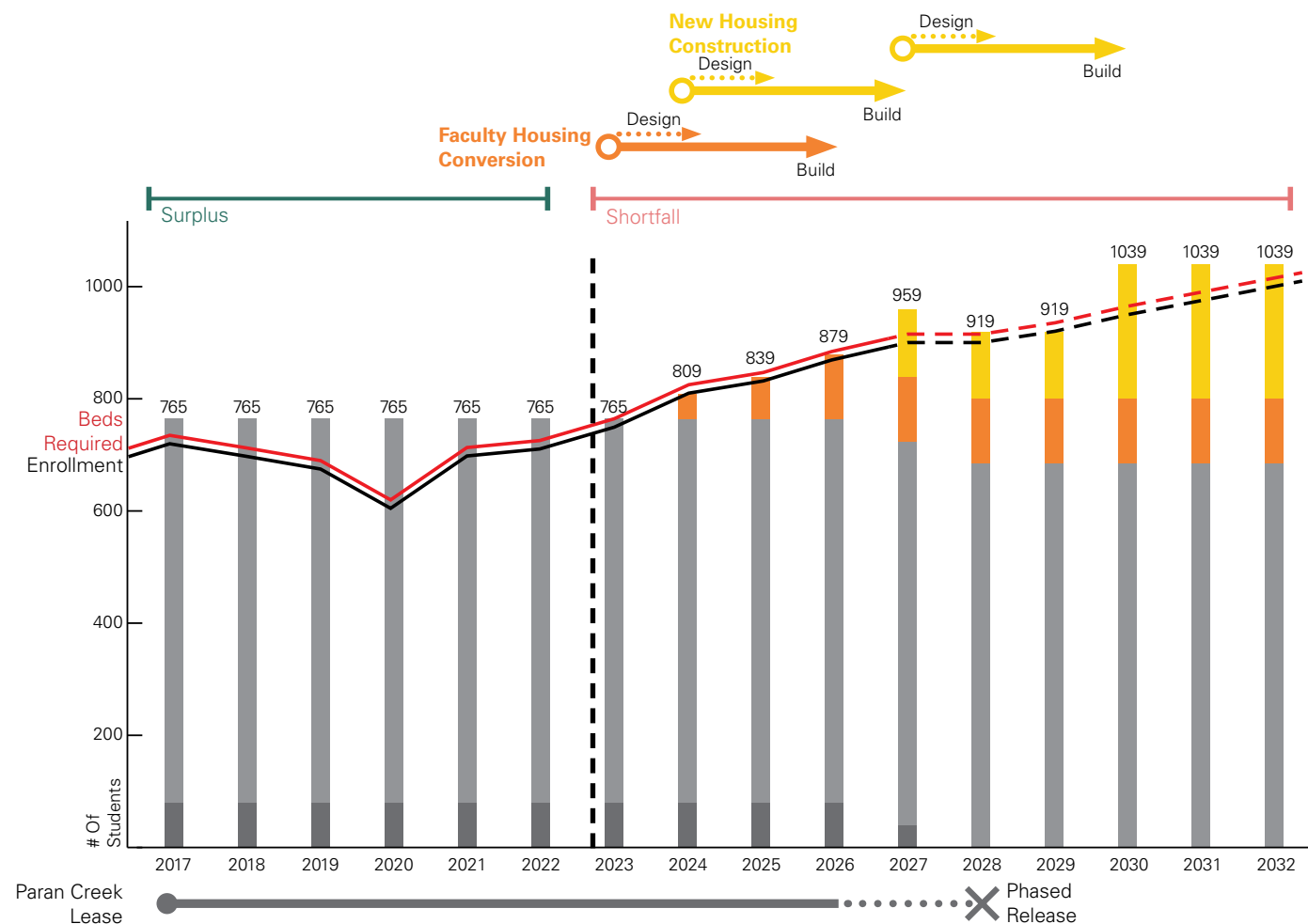Offer a variety of nearby spaces to support learning outside the classroom

Increase range of accommodations to meet changing student needs

Quality of space & integrated components toward zero carbon goals

Foster a sense of belonging & engagement for all students
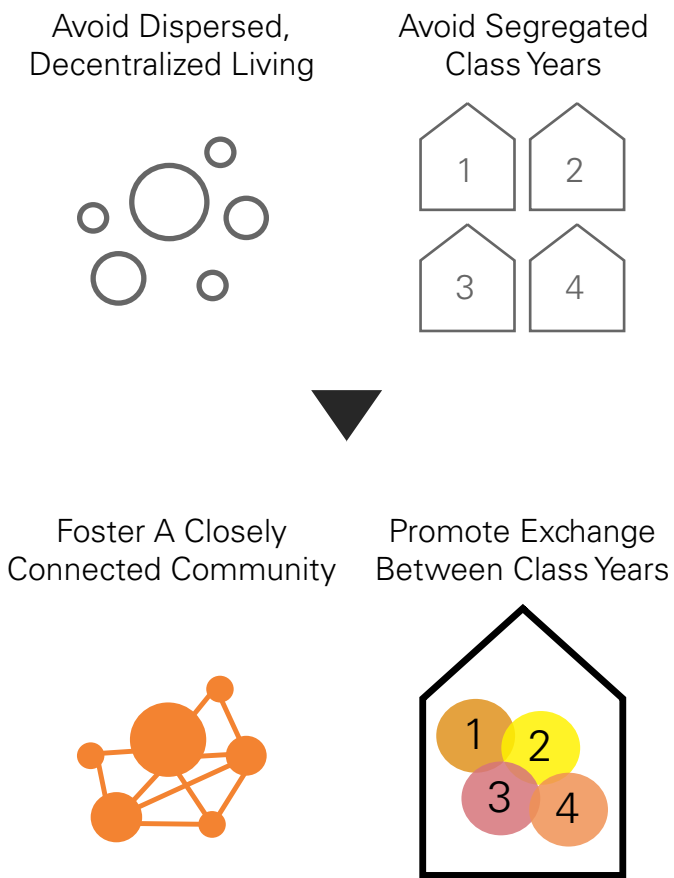
Living

Analysis

New Housing Construction

Design ····▶ Build

Design ····▶ Build

Faculty Housing Conversion

Design ····▶ Build

Surplus | Shortfall

Beds Required
Enrollment

765 765 765 765 765 765 765 809 839 879 959 919 919 1039 1039 1039

2017 2018 2019 2020 2021 2022 2023 2024 2025 2026 2027 2028 2029 2030 2031 2032

Paran Creek Lease ····✗ Phased Release

Additional Housing Needed to Support Growing Student Body

Today, Bennington has the largest enrollment in the college's history, and is on the threshold of its housing capacity. With a moderate enrollment scenario projecting a shortage of 120 beds in the next 3 years, there is an urgent need to identify cost-effective near-term solutions to accommodate growing enrollment. It is expected by Fall of 2024 that some form of new housing will be necessary. A flexible near-term approach is a necessary "runway" for long-term solutions:

Phase 1: Re-purpose select faculty residences to student housing as a "Bridging Strategy" for incremental growth, while aiding faculty in finding alternative housing close to campus . Conversions allow for minimum financial risk while momentum is built in enrollment approach and fundraising to support a long-term solution in Phase 2.

Phase 2: Expand on-campus housing capacity through new facilities that integrate student housing, faculty housing, and new amenities.

Avoid Dispersed, Decentralized Living | Avoid Segregated Class Years

1 2 3 4

Foster A Closely Connected Community | Promote Exchange Between Class Years

1 2 3 4

Maintain Unique Housing Mix

The housing model is as critical to a Bennington education as the curriculum. From its inception, housing at Bennington has never been about providing lodging while students take courses but establishing a framework for learning by living as part of a community. Just as in the classroom, students from all class years benefit in their living environment from each other's ideas and experiences. In order to support the above, the College provides a range of housing options to enable student development, honoring individual needs as appropriate (and as resources permit), and attesting that we learn best together, and not in isolation.

Preserve Community Scale & Character

The student residential experience at Bennington is deeply rooted in the "house" system, comprised of a collection of small houses with 35-40 residents each. Houses are clustered in groupings based on typology: the Colonials, the Barnes houses (or "milk crate" houses), and the Woo houses (or "new" houses). Each house has its own unique community identity and character, and most students become deeply connected to their house; house traditions and culture are passed on from year to year. The conviviality fostered by the design of homes and assemblage of neighborhoods is an integral part of each student's experience at Bennington, and should be preserved in all future housing endeavors.

Living

Single Bedroom
Double Bedroom
Triple Bedroom
Staff/Faculty Unit
Common Rooms
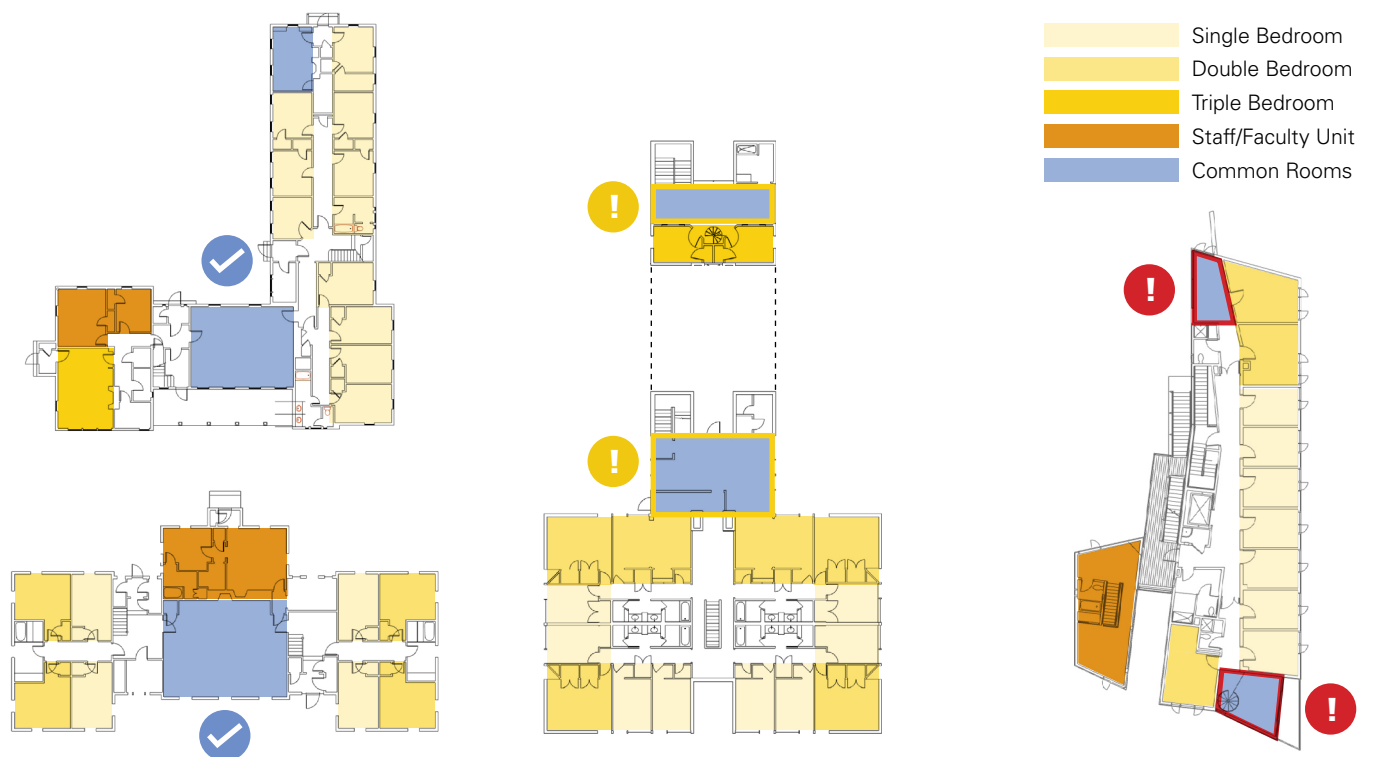
Colonial Houses contain the preferred proportion of bedrooms to common rooms

Barnes Houses have recently converted some common rooms to triple bedrooms, leaving students with very few social spaces

Woo Houses have a marked reduction in common room sizes, often underused given their restrictive size and peripheral placement

15 min increment Walkshed
Houses Owned by the College
Apartment Owned by the College
Apartment On Lease

170 Mattison Road
121 VT-7A
58 Main St
10 Prospect St
Paran Creek
26 Scarey Lane
1249 Silk Road
279
339 Main St

3.4% Vacancy (Vermont)
4000 Rental Units Demand (Vermont)

$825 /unit Median Rent (Town of Bennington)
2.29 Average Household Size (Town)

$48,929 Median Income per household (Town of Bennington)

Pressures on Social Spaces & Unit Types

Each house has a common room (i.e. living room) that serves as the central social space, as well as one or two small kitchens, and shared non-gendered bathrooms. Recent pressures to accommodate more students in each house have caused common rooms to be reduced (as in the Barnes houses) or underused due to their peripheral placement (as in the Woo Houses), both detrimental to each house's social life and unifying sense of community. Additional feedback from students indicated that the most requested amenities in student housing include more extensive kitchens to support students cooking their own meals, more privacy in bathroom arrangements, and more private spaces for study within the houses.

In recent years, the Residential Life group has seen a marked increase in the number of requests for single rooms through the ADA accommodations process. Such accommodations are often requested to support mental health needs, as opposed to physical disabilities. While singles have typically been "guaranteed" for seniors (4th year students), the growth in accommodation requests for singles from 1st year to 3rd year students is putting increasing pressure on residential space: when there are not enough singles to meet all needs, doubles are converted to singles, diminishing capacity overall.
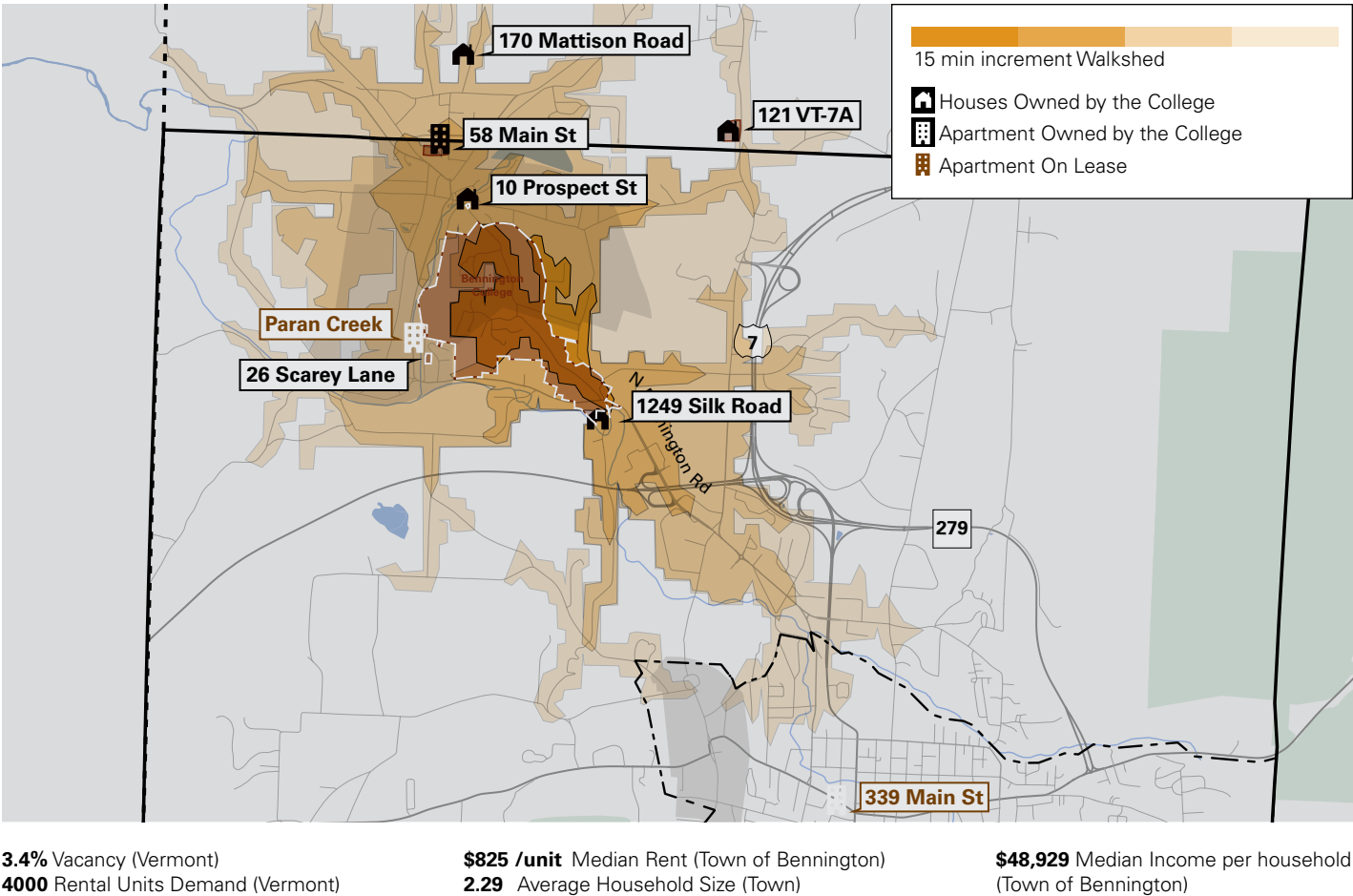
Regional Housing Issues & Opportunities

The current local housing market is highly constrained. It is difficult for staff and faculty to find high-quality, affordable housing either for rent or for purchase. This is a state-wide issue in Vermont, which has recently identified the housing shortage as a primary concern, and is working to direct resources towards developing solutions. In this context, it is both necessary and financially prudent for the college to invest in procuring or developing new housing in the immediate vicinity of the campus, including options for development on the campus itself.

In conjunction with strategies for the expansion of student housing capacity, the creation of new housing venues for faculty represents an opportunity to engage the wider housing shortage in a productive way. The strategies described here each have different implications for the residential makeup of the Bennington campus as well as the adjacent area. The viability of any one strategy will depend on factors such as the state of the local housing market at the time, as well as finances, capacity needs, and available lead time

Living

Respect Campus History & Context

Creating new homes on campus will necessitate an approach informed by the campus' rich history and context that adds to Bennington's established character, not detract from it.

— Maintain ideal clusters of 30-40 students, woven on-campus
— Increase range of accommodations within a house and cluster to meet changing student needs
— Consider new Faculty Housing that could support connections with North Bennington

Introduce Mixed-Use Hubs for Living & Working

A Bennington education occurs both inside and outside the classroom. Introducing new modes of live/work residences will aid the college's mission to champion self directed learning anywhere and at any time.

— Offer a variety of nearby work/study spaces to support the creative process
— Ensure residences account for the differing interests of all class years
— Create new Faculty Housing which could provide studio space

Center Growth with Communal Spaces

Communal spaces serve as the essential backdrop for discourse, inclusivity, and empathy through the ongoing practice of personal and social responsibility and shared governance.

— Ensure communal spaces are generous and high quality within new and existing housing
— Foster a sense of belonging and engagement for all students

Create Intimate & Fun Landscape Nodes

The College community emphasized the critical role that outdoor spaces play in their daily lives—acting as essential corollaries to the tight fabric of buildings on an already intimate campus. Offering outdoor spaces at a variety of sizes allows people to find privacy, gather in groups, study, play music, and other activities as desired. Offering spaces with varied intensities of infrastructure—such as hard paving, furniture, outlets, overhead cover, and proximity to buildings—allows for a range of uses that adapts with the seasons and community needs.

Elliott+Elliott, Cranberry Isles

Edward Barnes, Haystack Mountain School of Crafts

MLTW, Sea Ranch Condominium One
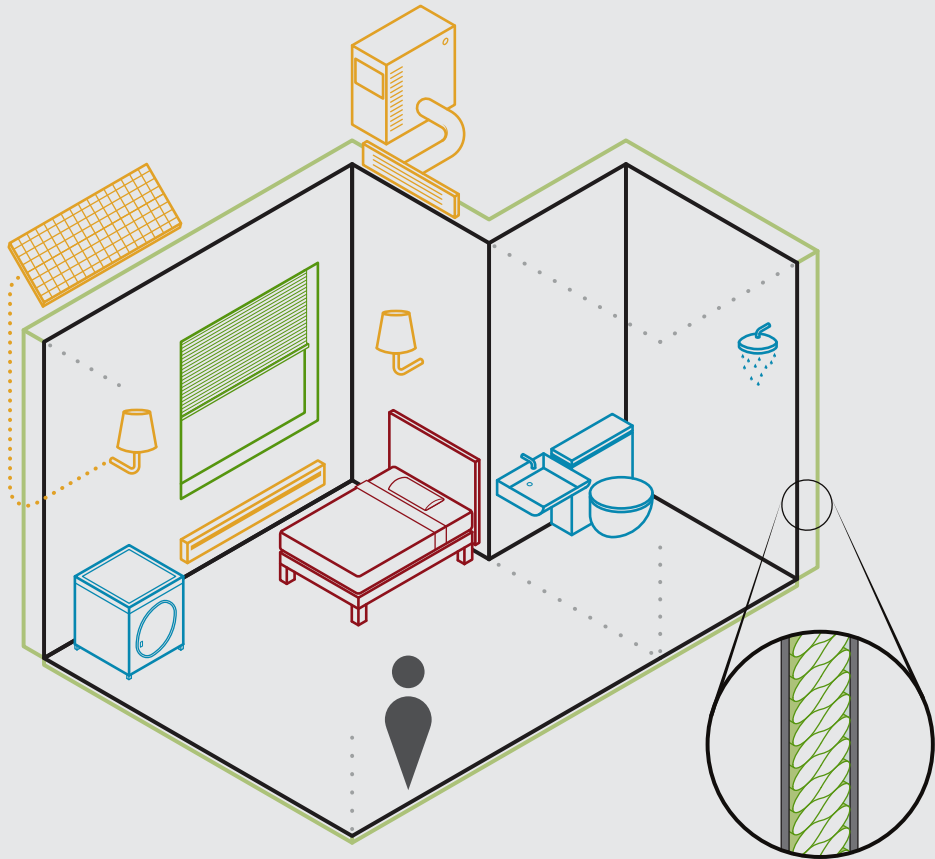
Bennington College

Living

Extend Indoor Living to the Outside

College members expressed the importance of outdoor corollaries to indoor spaces that preserve privacy, foster creativity, and feel at home:

— Campus as kitchen: Support the Purple Carrot Farm through infrastructural investment, and provide shared outdoor kitchen and work space

— Campus as common room: Continue to create spaces which support intimate moments as well as large groups by appropriate sizing, planting, and furnishing

— Campus as study: Provide light infrastructure such as coverage, lighting, or outlets to allow community members to live and play outside year-round

Improve Health & Comfort

Bennington College should continue to implement sustainability strategies that focus on enhancing health and wellness in future projects that also contribute towards the College's goal of becoming carbon neutral by 2030. It is critical that living spaces are healthier and more comfortable for occupants when considering future renovations and new construction projects. While there are a variety of residential spaces on campus with unique attributes, Bennington College should consider implementing the general strategies outlined in the diagram for all future residence-oriented projects. More specific recommendations for individual residence buildings are included at the appendix of the report.

Energy
— Efficient mechanical systems such as ground source or cold-climate heat pumps
— LED lighting & Energy Star appliances
— Renewable energy products

Envelope Upgrades
— Super insulated envelopes
— Triple pane windows
— Air sealing to minimize drafts

Water
— Low flow plumbing fixtures
— Efficient dishwashers and clothes washers
— Permeable paving for stormwater management

Materials
— Low/No VOC materials
— Materials with recycled content and FSC wood
— Materials with EPDs and HPDs
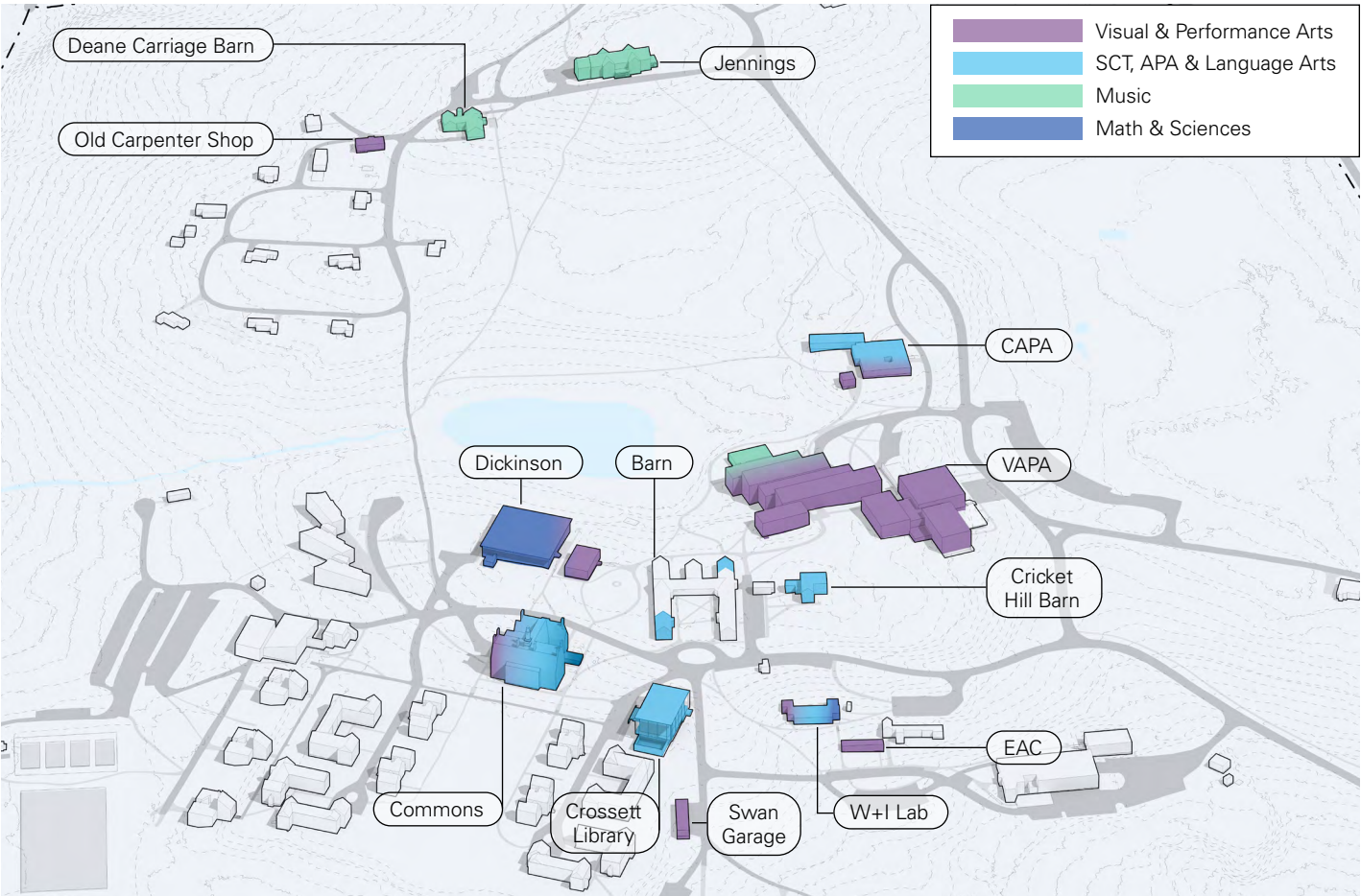
Learning

Engagement Feedback
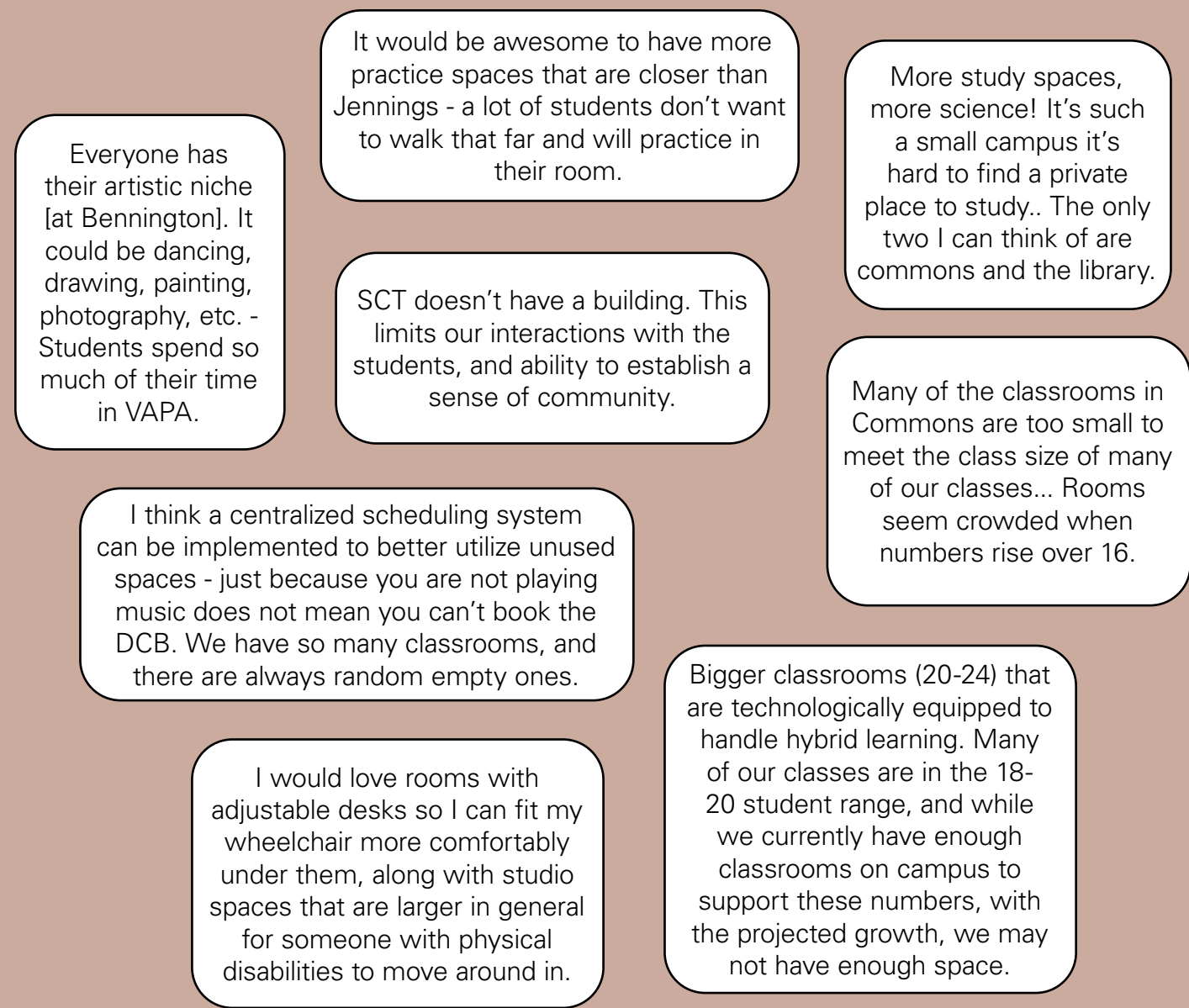
Recently placed on the National Register of Historic Places, many of the academic mid-century modernist structures were recognized for how the college integrates its vibrant intellectual and artistic history with its need for innovation. Much of the engagement focused on how to better utilize existing spaces and tuning to particular classroom and study space needs.

It would be awesome to have more practice spaces that are closer than Jennings - a lot of students don't want to walk that far and will practice in their room.

More study spaces, more science! It's such a small campus it's hard to find a private place to study.. The only two I can think of are commons and the library.

Everyone has their artistic niche [at Bennington]. It could be dancing, drawing, painting, photography, etc. - Students spend so much of their time in VAPA.

SCT doesn't have a building. This limits our interactions with the students, and ability to establish a sense of community.

Many of the classrooms in Commons are too small to meet the class size of many of our classes... Rooms seem crowded when numbers rise over 16.

I think a centralized scheduling system can be implemented to better utilize unused spaces - just because you are not playing music does not mean you can't book the DCB. We have so many classrooms, and there are always random empty ones.

I would love rooms with adjustable desks so I can fit my wheelchair more comfortably under them, along with studio spaces that are larger in general for someone with physical disabilities to move around in.

Bigger classrooms (20-24) that are technologically equipped to handle hybrid learning. Many of our classes are in the 18-20 student range, and while we currently have enough classrooms on campus to support these numbers, with the projected growth, we may not have enough space.

Values & Principles

Augment the multi-disciplinary learning environments that characterize Bennington

Reinforce & introduce productive adjacencies between fields of study & faculty

Enhance & add instruction spaces to accommodate a wide range of fields

Ensure existing & new spaces are accessible for all

Implement upgrades & additions in service of zero carbon goals
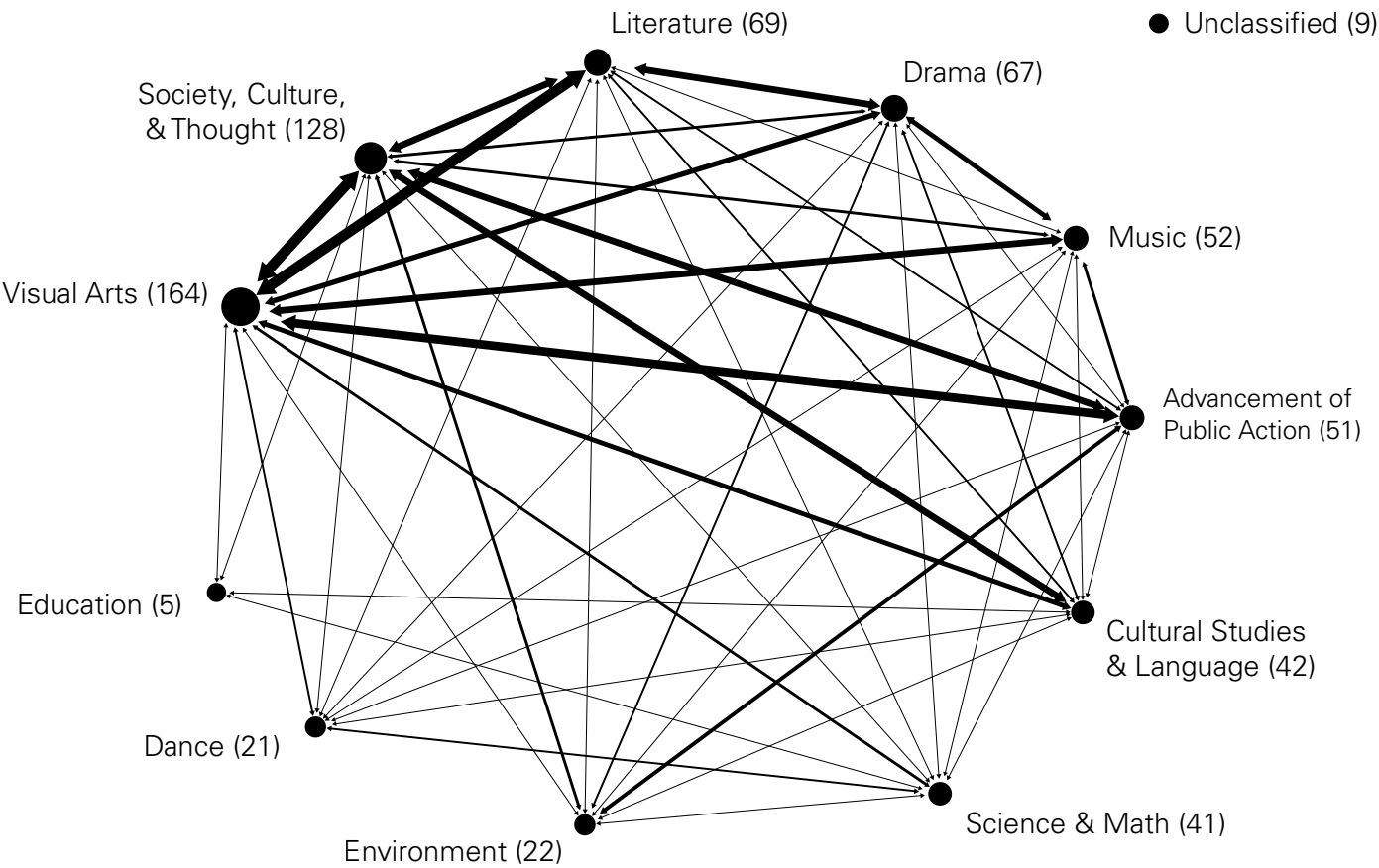
Learning

Analysis

Legend:
- Visual & Performance Arts
- SCT, APA & Language Arts
- Music
- Math & Sciences

Buildings labeled: Deane Carriage Barn, Old Carpenter Shop, Jennings, CAPA, Dickinson, Barn, VAPA, Cricket Hill Barn, Commons, Crossett Library, Swan Garage, W+I Lab, EAC

Network diagram nodes:
- Literature (69)
- Drama (67)
- Unclassified (9)
- Society, Culture, & Thought (128)
- Music (52)
- Visual Arts (164)
- Advancement of Public Action (51)
- Education (5)
- Cultural Studies & Language (42)
- Dance (21)
- Science & Math (41)
- Environment (22)

Mix of Uses Across Campus

Central to Bennington's founding vision is the belief that education is most meaningful when self-directed. Bennington's nearly 800 students (697 undergraduate and 102 graduate) engage intensively with its wide range of spaces to forge individualized and hands-on educational paths around their driving questions and interests. Based on classroom use data, the most well-used buildings on campus include VAPA, Commons, Dickinson, CAPA, and the pair of music practice/performance spaces in Jennings and Deane Carriage Barn.

Though some buildings are largely used by one field of study, classroom use shows many buildings are shared by various fields, as visualized diagrammatically above.

These circumstances can grant Bennington's students and faculty to make use of its academic buildings as robust instruments in the search for productive adjacencies and alignments between pedagogies.

High Level of Multi-Disciplinary Work

Visualizing the field of study specializations of recent Bennington graduates helps define the magnitude of cross-disciplinary learning that occurs at the college. The prominence of the visual arts is apparent, as 30-40% of graduating seniors name visual arts as the primary focus of their studies each year. As the first liberal arts college in the country to include the visual and performing arts as equal partners to the humanities (Society, Culture & Thought, or SCT), the next chapters of Bennington should continue to pioneer meaningful endeavors between all fields of study.
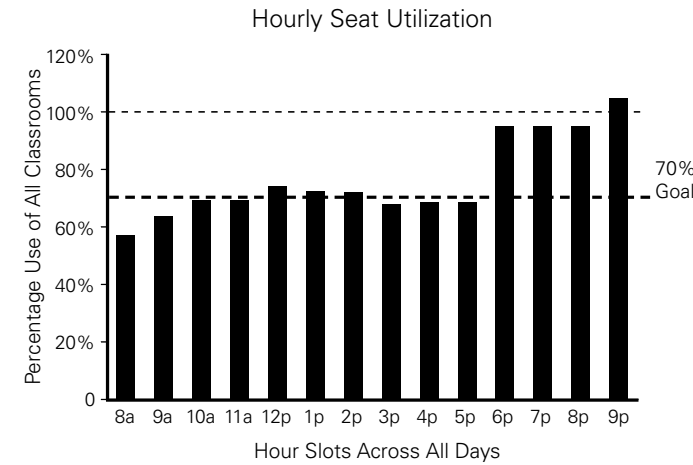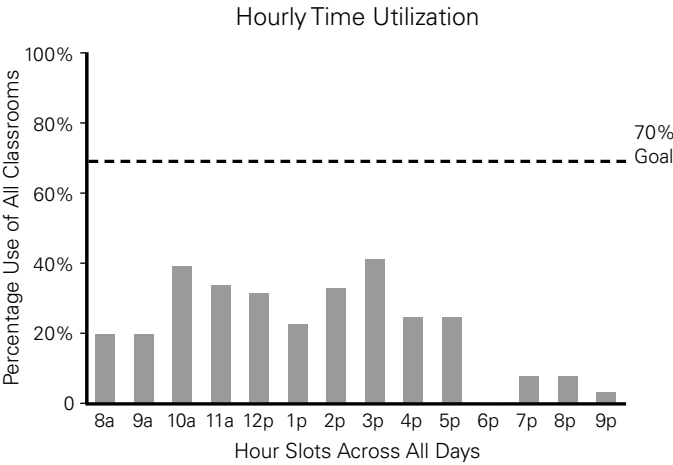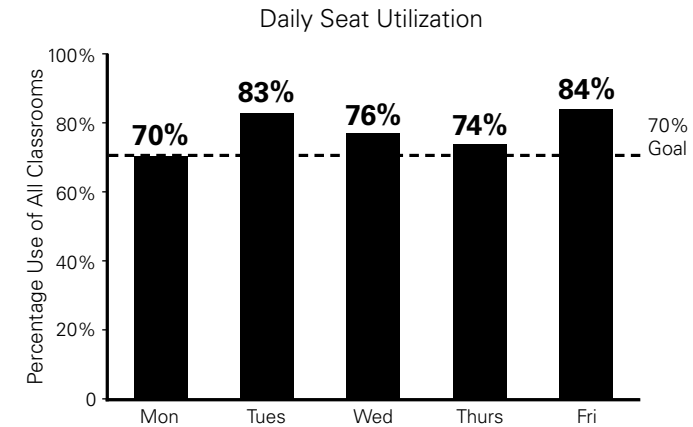
Diagram based on student specialization data of graduates from Dec 2019-June 2022

2022 Class Enrollment
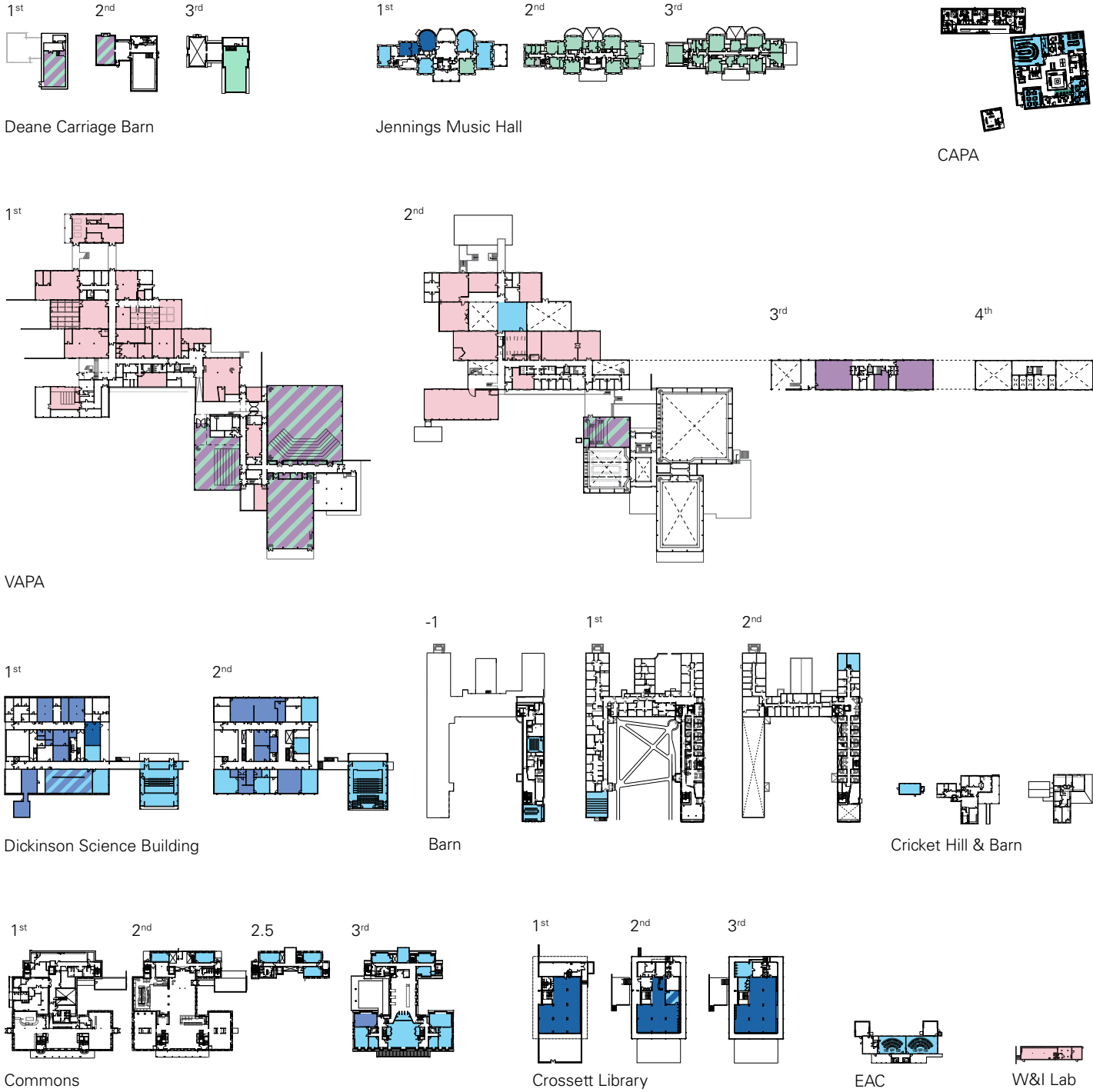- 39%
- 21%
- 17%
- 13%

- Visual Arts — 580 Enrolled
- Performing Arts — 480 Enrolled
- SCT & APA — 670 Enrolled
- Language & Writing — 643 Enrolled
- Music — 588 Enrolled
- Math & Sciences — 451 Enrolled

Learning

Analysis

Daily Time Utilization

Percentage Use of All Classrooms

- Mon **20%**
- Tues **20%**
- Wed **19%**
- Thurs **25%**
- Fri **17%**

70% Goal

Daily Seat Utilization

Percentage Use of All Classrooms

- Mon **70%**
- Tues **83%**
- Wed **76%**
- Thurs **74%**
- Fri **84%**

70% Goal

Hourly Time Utilization

Percentage Use of All Classrooms

Hour Slots Across All Days

70% Goal

Hourly Seat Utilization

Percentage Use of All Classrooms

Hour Slots Across All Days

70% Goal

Low Room Utilization

Academic buildings currently appear to have appropriate seat utilization, with classes generally above 70% of room capacity. Enlargements or construction of larger classroom spaces will need to be addressed in the near term as student growth continues across all fields of study. Classroom use is low overall, with only three classrooms reaching a 70% benchmark. Rooms are most utilized on Thursdays and between 10am - 3pm running one-third to one-half of capacity.

Bennington College has a wide range and quantity of learning spaces that, as expressed in the campus survey, are being underutilized due to deficient technology in classrooms, unsuitable furniture/room sizes, and little sound isolation. This has caused many classes to flock to a select few rooms on certain days of the week when faculty are able to teach, frequently forcing classes to make due in incomplete learning environments.

20.2% Average Time Utilization across
314 Classes in
61 Classrooms

75% Average Time Utilization with
698 Students

Deane Carriage Barn

Jennings Music Hall

CAPA

VAPA

Dickinson Science Building

Barn

Cricket Hill & Barn

Commons

Crossett Library

EAC

W&I Lab

Legend
- Performance Spaces
- Art Studios
- Classroom (Lecture, Seminar)
- Quiet Study Spaces
- Rehearsal / Practice Spaces
- Science Labs

Learning

Analysis

Martha Hill Workshop **Greenwall**

Lester Martin Theater **4F Dance Studios**

CAPA Symposium **EAC**

Auditorium & Theater

Rehearsal & Practice

Conventional Instruction & Lecture

Jennings 136 **Jennings 130** **Jennings 249B** **Jennings 224**

Music Instruction

Music Practice

	Visual & Performance Arts
	SCT, APA & Language Arts
	Music
	Math & Sciences

Rooms enlarged for visibility, not to consistent scale

Ceramics B102 **Video Lab D204** **Tishman** **Kinoteca** **Sculpture C104** **Painting B205a-b**

Crossett 3F Classroom **Commons 326** **CAPA DL** **Commons 318**

Studio

Lecture & Instruction

Flexible Instruction & Seminar

DCB 1st Floor "The Pit" **Greenwall**

Music Performance

DSB 106 **DSB 238** **DSB 204-205** **DSB 117** **DSB 209** **DSB 206**

Math & Science Lab

Math & Science Lecture

Space Needs: Visual & Performance Arts

— Greater quantity and maintenance of studio spaces for Architecture, Ceramics, Painting & Drawing, Photography, and Video
— Upgrade and dedicate space for Digital Fabrication Lab, integral to all disciplines
— Enlarge computer labs shared by Animation, Architecture, Digital Arts, Photography, and Video
— Storage solution for equipment/props taking up high value Performing Arts space
— Sound-proof theater spaces to allow concurrent classes in all spaces
— Address accessibility issues to Greenwall Theater
— Improve lighting, sound, recording systems in performance areas

Space Needs: SCT, APA & Language Arts

— Create dedicated teaching and study spaces for SCT and Language Arts disciplines. Classes are currently spread across Barn, CAPA, Commons, Crossett, Dickinson, and EAC in spaces too small for growing class sizes of 20-25
— Upgrade furniture in classrooms currently in use to allow more collaborative and flexible organization
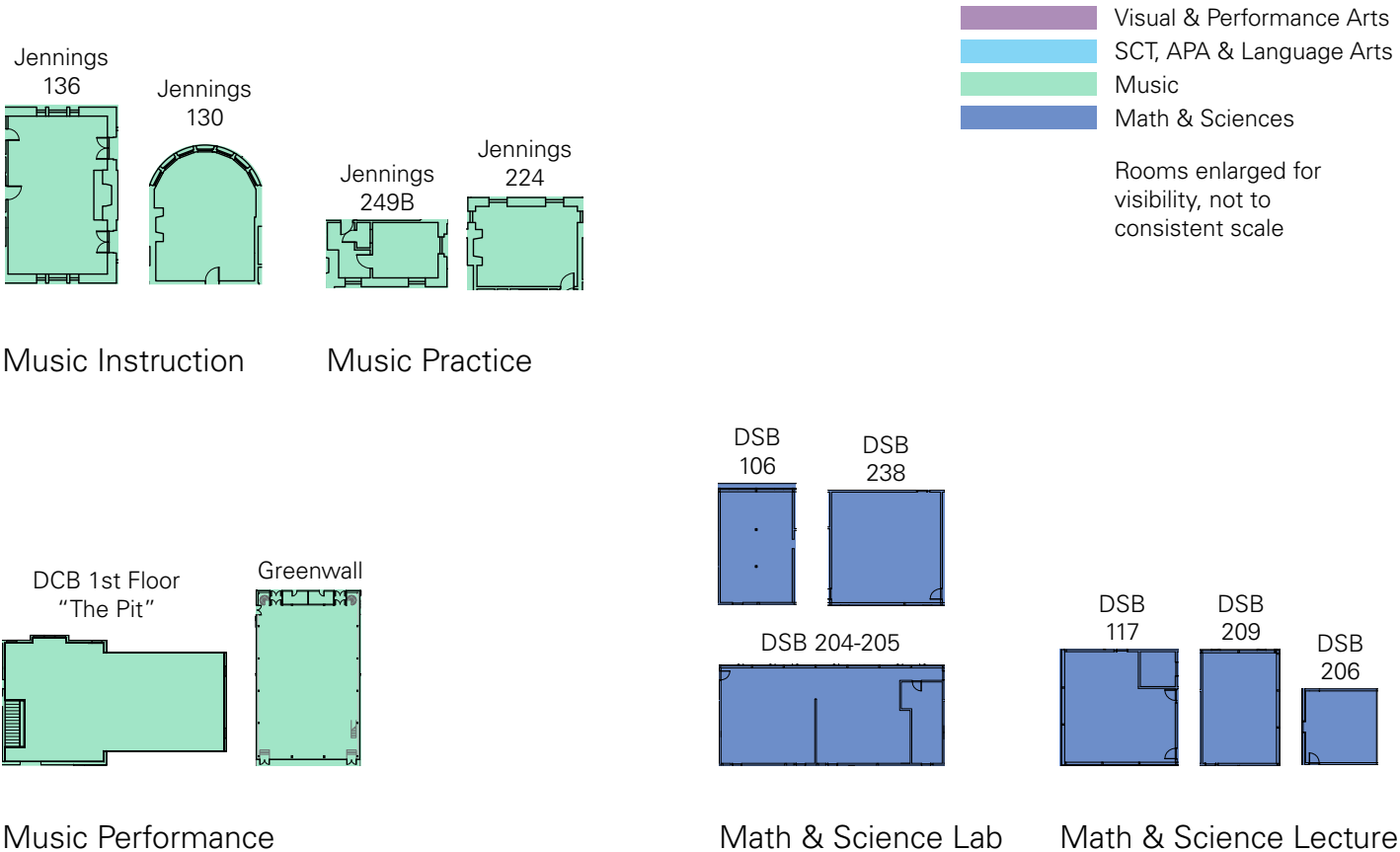
Space Needs: Music

— Storage solution for large equipment/ instruments taking up high value space
— Increase quantity and improve soundproofing of practice rooms
— Add performance and teaching spaces that accommodate 20 students or more
— Add and improve faculty office spaces
— Add and soundproof recording and e-music studios
— Weatherproof porches for outdoor performance
— General maintenance and accessibility improvements to aging Jennings building
— Improve lighting, sound, recording systems in performance areas

Space Needs: Math & Sciences

— More spaces for group work, independent research equipped with white boards and computers
— Enlarge lab spaces and more faculty offices.
— Resolve scheduling issues from sharing classrooms with other disciplines
— Improve outdoor spaces for greater use
— Upgrade furniture to allow more collaborative and flexible organization of large rooms
— General maintenance to aging Dickinson building

Learning

Recommendations
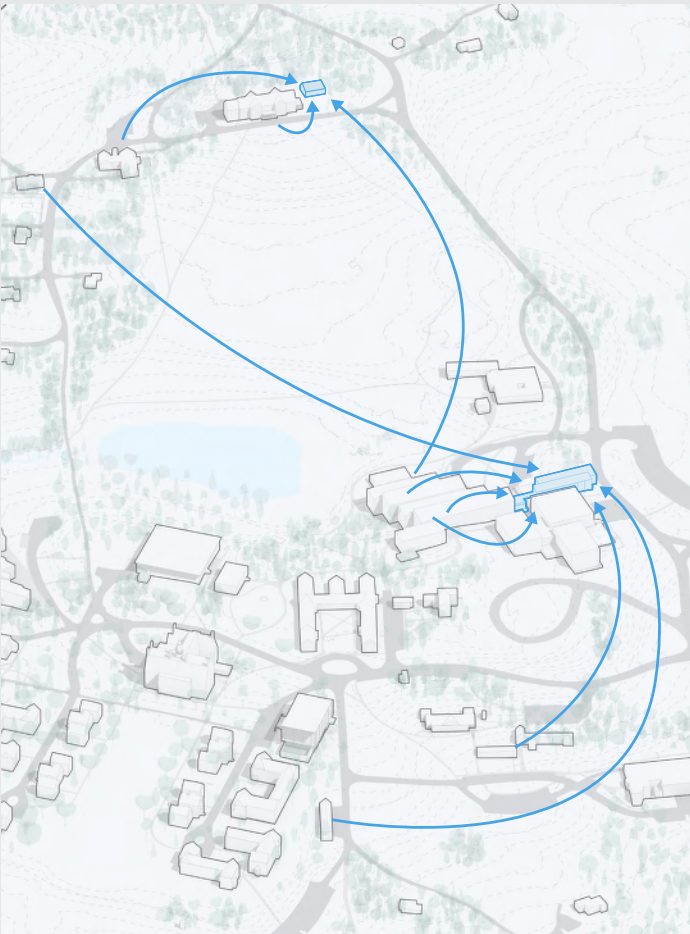
Consolidate
Disparate Programs

Dispersed locations for academic programs have prevented learning spaces from being utilized to their full potential.

— Move studios in Swan Garage, Old Carpenter Shop, and Word & Image Lab to a new VAPA Studio building
— Centralize digital fabrication equipment to a space in a new VAPA Studio building
— Unify Photography and Video studios in a more spacious location in a new VAPA Studio building
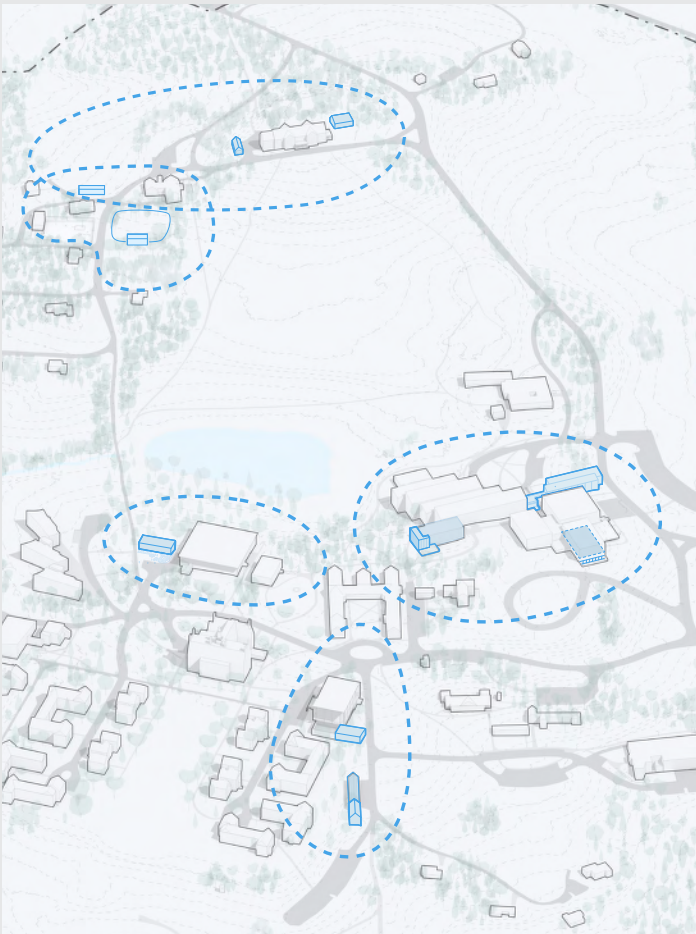
Intensify Academic Zones &
Bolster Multidisciplinary Work

As Bennington continues to grow its academic programs, it will be increasingly necessary to gradually offer more learning spaces that support a wide range of fields.

— Construct modular barn-like structures to support growth of all fields as necessary and connect to existing buildings where appropriate
— Consider prefabricated construction methods of new learning spaces to expedite construction
— Aggregate new, small structures to create new academic zones (an approach similar to the design of CAPA)
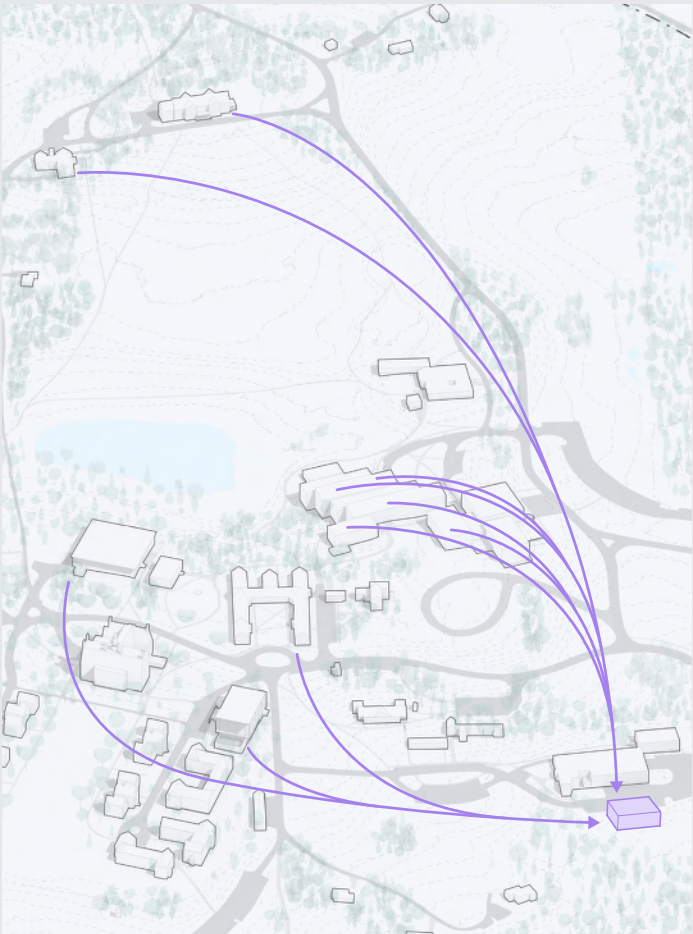
Alleviate Existing
High-Value Spaces

The accumulation of ad-hoc spaces and fluctuating programming occupies a restrictive amount of Bennington's high-value spaces, as seen in VAPA, Dickinson, Deane Carriage Barn, and Jennings.

— Construct a storage building to consolidate unused equipment and various archival material
— Restore and improve former storage spaces as learning spaces
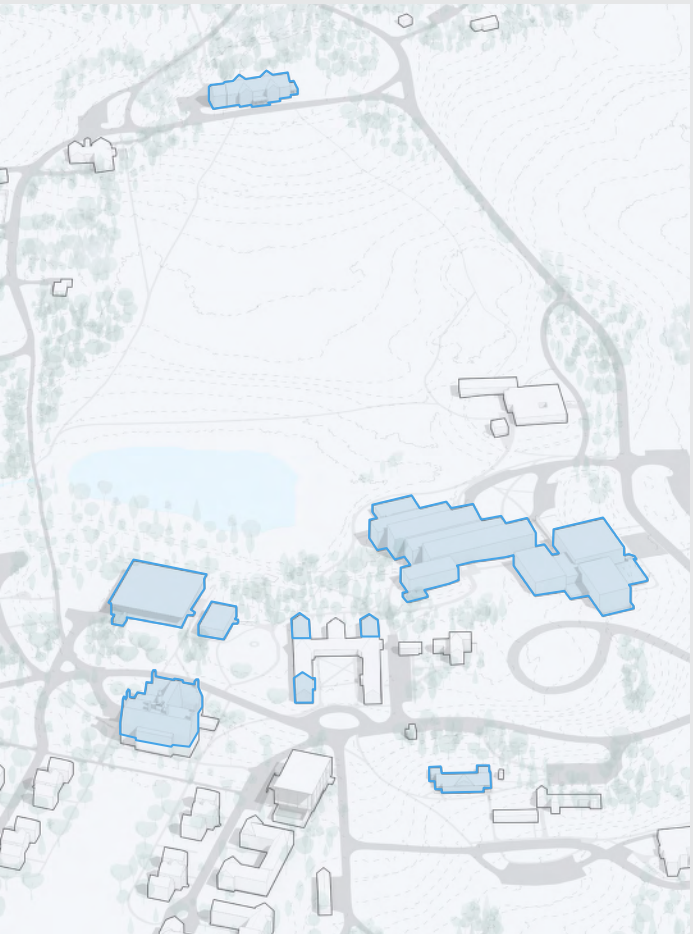
Improve Overall
Classroom Utilization

Analysis has shown that many of Bennington's academic spaces, especially those for conventional lecture / seminar classes, are underutilized or that classes are distributed unevenly across the week.

— Implement room scheduling software for all learning spaces
— Standardize teaching technology across all existing rooms
— Distribute classes more evenly throughout the week
— Introduce electric key fob access to frequently used areas for greater access to students

Learning
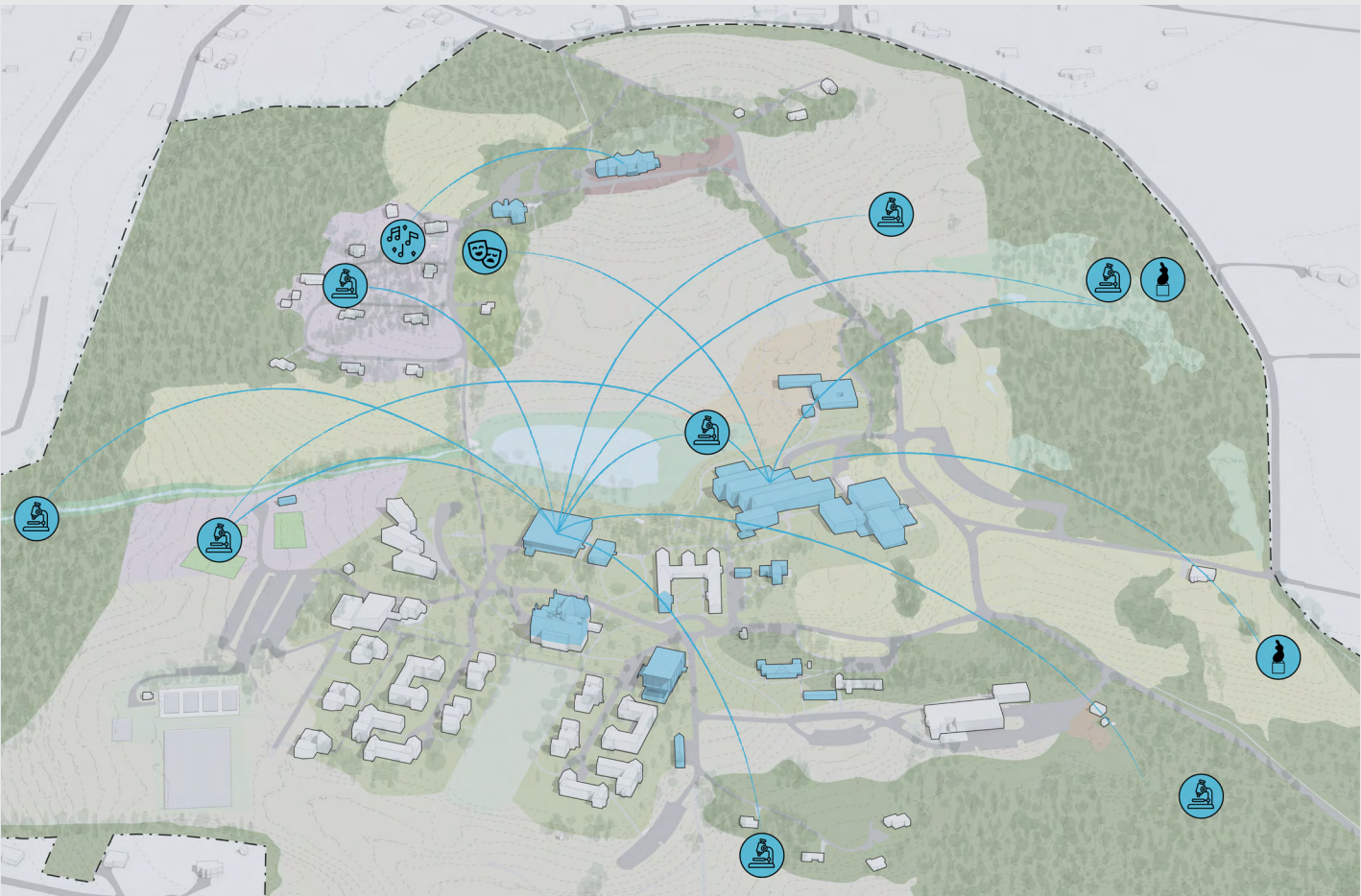
Extend Indoor Learning to the Outside

College members noted particular opportunities to expand their learning beyond buildings:

— Campus as stage, setting: Provide more outdoor spaces that support visual and performance arts, including an amphitheater

— Campus as gallery, inspiration: Maintain the landscapes to preserve their creative contribution, and leverage the whole campus and its diverse landscapes in service of visual art display

— Campus as research lab, sanctuary: Utilize the unique ecologies on campus in service of academic programming, research, and learning, and use academic programming in service of bettering the campus ecologies
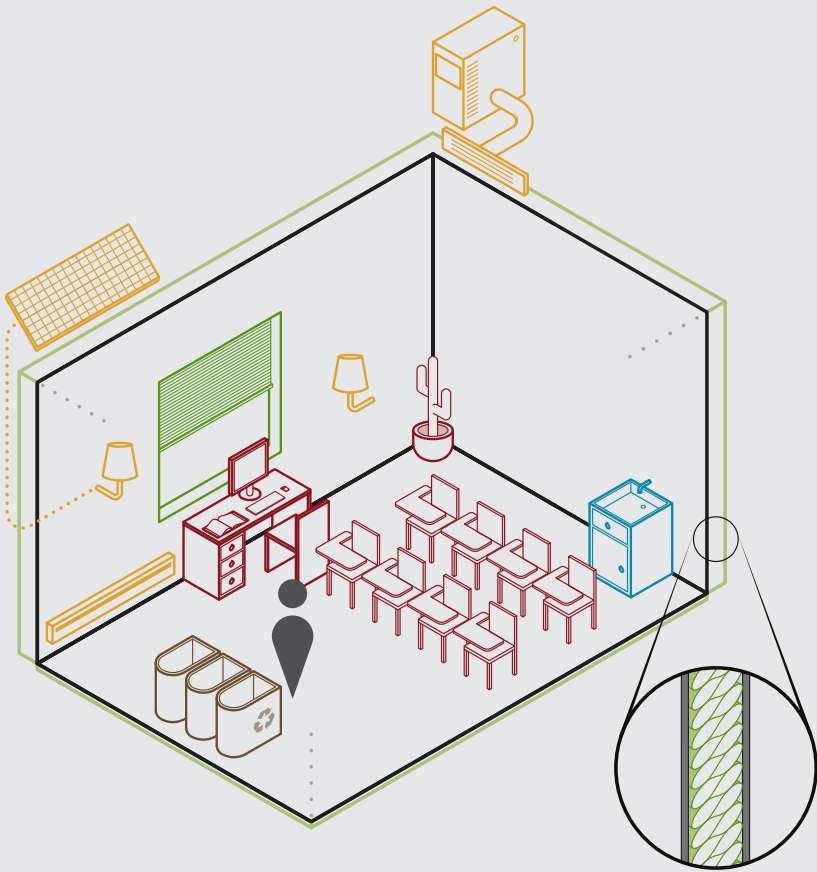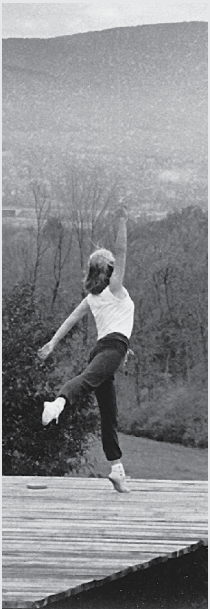
Adapt Buildings Responsibly & Efficiently

Academic buildings as a whole represent a significant part of Bennington College's overall energy and water consumption, given the large amount of time that the college community spend in these buildings. Continuously occupied throughout the day, it is important that efficiency is a primary focal point for future upgrade projects. Atelier Ten analyzed lab/research and other academic buildings separately as the equipment associated with them typically consumes more energy than other academic buildings and classrooms. Individual sustainability recommendations were provided for each, however, general strategies for future projects on all consistently used academic buildings are outlined in the diagram.

Energy
— Replace heaters and boilers with efficient systems
— Occupancy sensors, daylight sensors, and LED lighting
— Renewable energy production

Envelope Upgrades
— Super insulated envelopes with triple pane windows
— Roof replacement if necessary

Water
— Low flow plumbing fixtures
— Consideration of stormwater collection and detention
— Install permeable paving and regrade the site as necessary for stormwater management

Waste
— Recycling and electronic waste disposal infrastructure
— Composting program for buildings with food service areas
— Divert 75% of materials from landfills during future construction projects

Materials
— Low embodied carbon structure and enclosure materials
— Low/No VOC materials
— Vegetation and natural materials throughout the space

Recreation

Engagement Feedback

Bennington College has a robust set of social and recreational spaces, mainly concentrated across the spine of the southern portion of campus but many are underutilized and not aligned with student needs. Comments ranged from creating warm and inviting spaces that are knit in the fabric of the campus to new spaces that support health and wellness. The campus landscape was discussed as a key part, activating outdoor intentional spaces for play.

Values & Principles

Enable students, staff & faculty with spaces that are theirs to mold & shape

Enhance environments for a range of uses & experiences - indoor & outdoor, intimate & collective, quiet & loud

Design with joy & holistic well-being in mind

Create & improve spaces for a range of bodies, abilities & extended use during all seasons

Extend opportunities for learning into the campus & landscapes

The designated social buildings are sad and empty feeling. The student center is cool in theory but the vibes are so weird there.

A campus market (small grocery and heat yourself take away) could be a good way to assist students who prefer to cook for themselves and support our community.

I feel like the Student Center is so far away with not a lot of appeal that it isn't really worth the walk.

Commons 1977 Lounge, Roz's Cafe, Lawn between Commons and Dickinson, Commons Lawn; these are all easily accessible and are gathering places for almost everyone in the community, they are spacious and have good places to sit.

Why don't we talk more about play? It's curious that we assume once you get to college, you no longer want to play or simply enjoy the landscape.

There aren't a lot of intentional outdoor spaces. What about a 'wellness walk'?

The gym currently has a dingy, neglected atmosphere that is at best unconducive and at worst hostile to students attempting to get healthier, which of course has knock on effects on students mental health.

I do most of my socializing in the dining hall.

The upper level of the Barn is always warm, so I like to work up there and see the folks walking through the hallways.

I think we'd all benefit from more defined organizational/HQ spaces for student and faculty organizations, on yearly or multi-year "lease" agreements.

It'd be nice to have more spaces where someone can be alone and focus as an individual without fear of being in the wrong place or being kicked out of a space because of other students.

Recreation   Analysis

Legend:
- Outdoor Social / Recreational Spaces
- Indoor Social / Recreational Spaces

Ill-Defined Wellness Corridor

Crossett Library

Jennings Library

Dickinson Library

Commons Lounge

Student Center Upcaf + Downcaf

Student Center Main Space

Student Center Addition

Meyer Rec Barn

Commons Roz's Café

Commons Dining Room

Underutilized Indoor & Outdoor Recreation Spaces

One of Bennington's most valued resources is its landscape and entire land holding. Despite the potential, most social and recreational spaces are concentrated near the center of campus without activating the peripheries. This set of buildings and spaces are occupied in an ad-hoc manner without clear signage or connections and lack intentional programming.

Outdoor spaces are also only enjoyed when weather permits and indoor spaces for both quiet and loud recreational use are not as abundant and overall not well-maintained.

Though social and recreational activities occur in both residences and academic buildings, most of the buildings specially dedicated to recreation form an ill-defined "Wellness Corridor" between residences around Commons Lawn and the main academic core. Conceptualizing this set of recreation spaces as its own network that can connect the north and south, as well as with the entire landscape, can help form an intermediary between residential and academic life and improve the college community's quality of life.
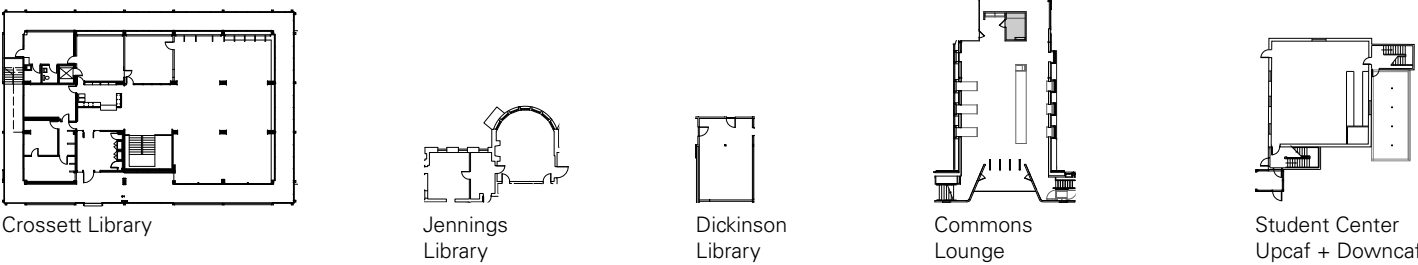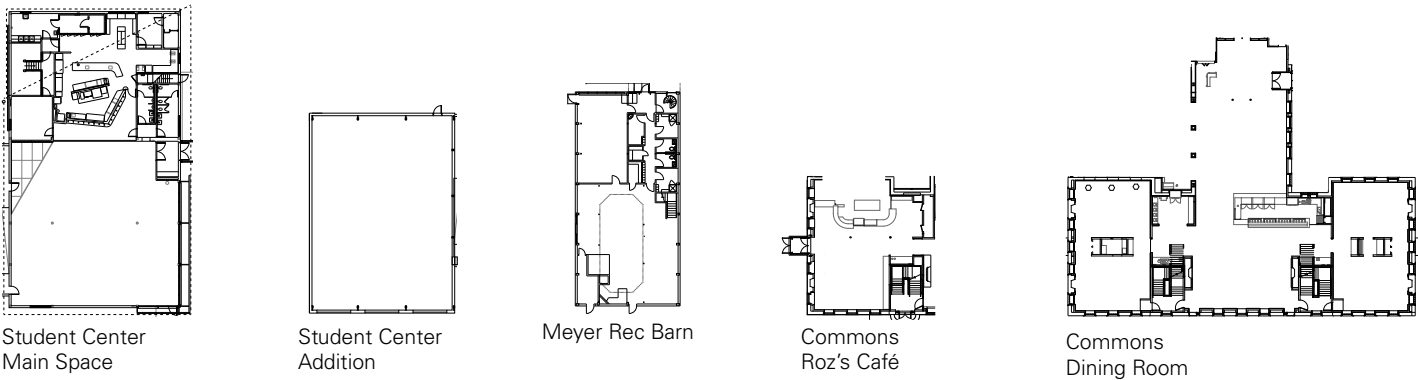
Need for Variety & Flexible Spaces

The scarcity of quiet spaces that would balance the largely public existence at Bennington was a point continuously reiterated in engagement. Though the few existing indoor quiet spaces are well used, they are mostly concentrated in the Wellness Corridor, with few elsewhere on campus. Potential solutions to remedy this issue are explored further in the Recommendations section concluding this analysis and in the Projects and Initiatives section.

Best exemplified in the Commons dining room and cafe, public recreational spaces have great potential to convene people (who otherwise might not have crossed paths) around regular rituals, as well as offer formalized spaces where

student services/programs can better support the college community. Many of Bennington's existing recreation spaces can be improved to better facilitate such bonds. Of all recreational spaces, the Student Center and Meyer Rec Barn were consistently named as areas that would benefit most from improvements. As the main gym and wellness center for Bennington, much of the main improvements for Meyer Rec Barn relate to improving current conditions - maintaining and upgrading ventilation, storage, equipment, and converting the underutilized faculty dance space as an auxiliary space for the Rec Barn's existing programs. Improvements to the Student Center are explored on the following page.

Recreation

Analysis
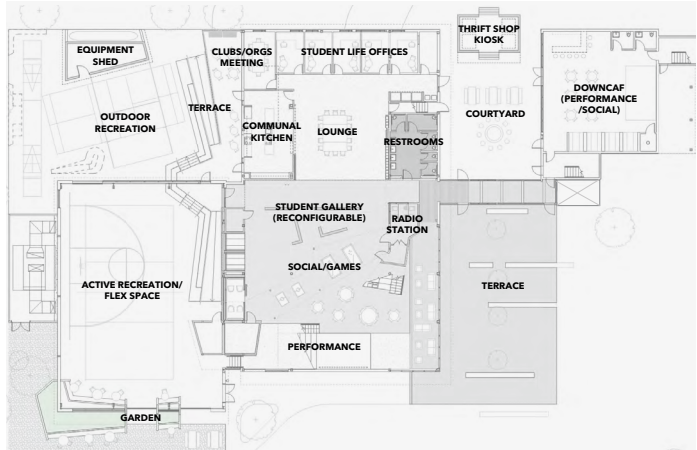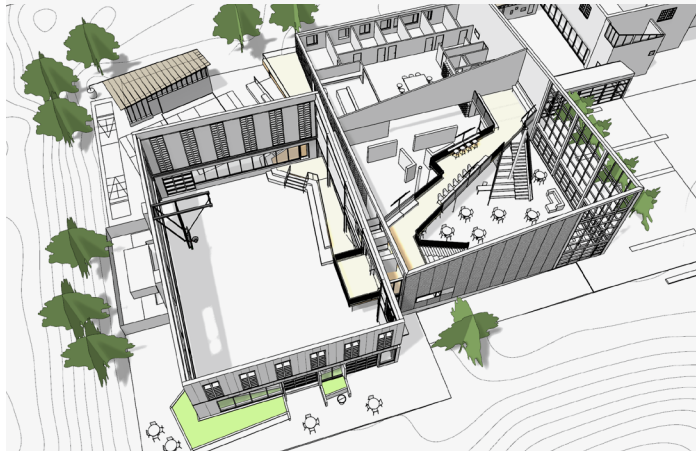
Student Center in Need of a Re-Imagining

The Student Center is underutilized due to its scale not aligning with programming needs, often feeling too big or too small. However, there have been encouraging accounts of students modifying the Student Center addition to their needs. Photos from John Umphlett's advanced sculpture class on the left show such instances of students using the space and furnishings in service of their work. The Student Center can be a lively and valuable resource for its community if students approach this space as a tool that is theirs to mold, and if the space is re-imagined to be conducive to this attitude.

The 2019 Student Center renovation plans (shown above to the right) were developed

with student engagement. This would need to be revisited as student needs are continuously evolving, but represent some of the main components missing from the current arrangement. The Student Center could benefit from less static furnishing and instead, could implement modular and movable "rooms" that house these discrete programs and can be arranged to allow various layouts that make use of the entire space. Student organization offices and spaces for quiet study or small meeting were key components noted with engagement. The proposal also looks to integrate a communal kitchen, a range of athletic spaces, and support indoor/outdoor connections.

Minimal Access to Campus Landscape

Outdoor recreational space is currently characterized by domesticity and proximity to the core of campus, the spaces beyond which are characterized by a lack of accessibility. The majority of outdoor recreation takes place in existing lawns and terraces, although the campus contains a multitude of different landscape types to experience, which each present different recreational opportunities throughout the year. A comprehensive recreational approach understands that the majority of the academic year falls in colder winter months, and provides year-round outdoor recreational opportunities, in the forms of infrastructure, landscape maintenance, and programming.

Recreation   Recommendations
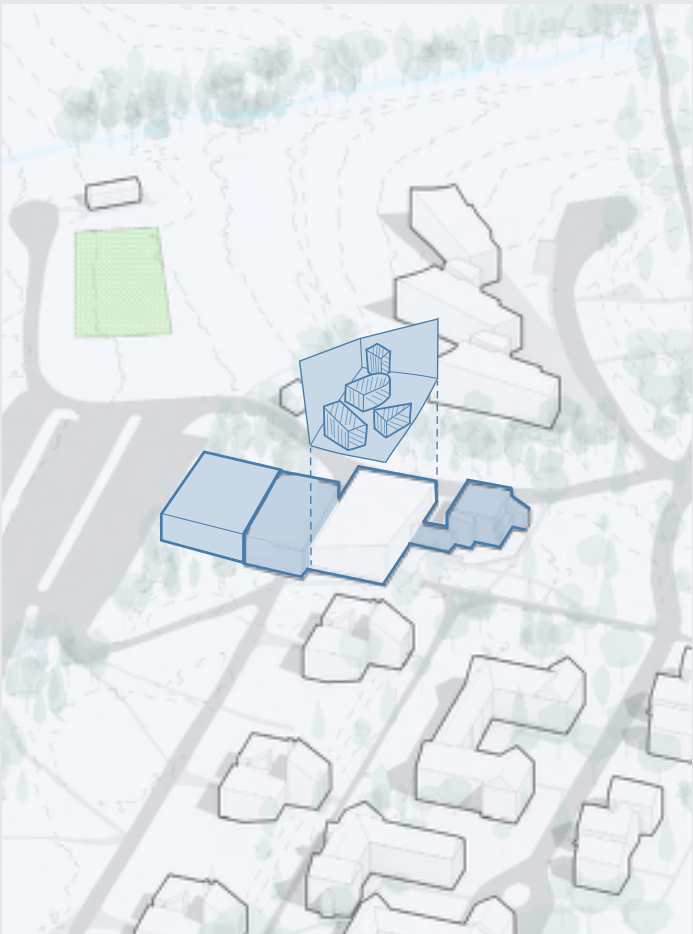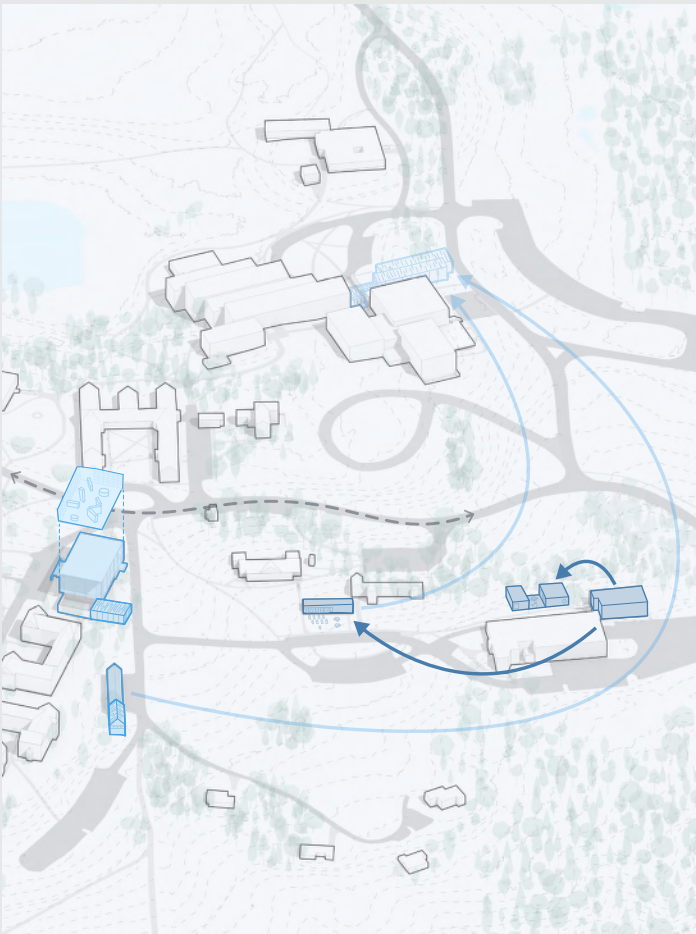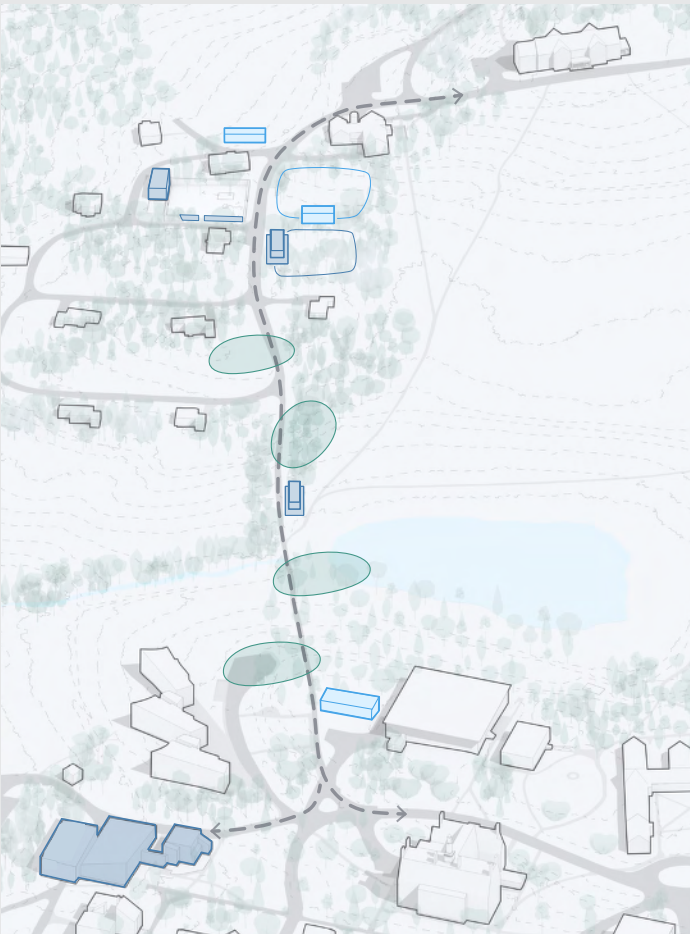
Activate Connection to the North

The west path that connects north and south ends of campus currently feels like a long journey that discourages movement. Introducing new programs and points of interest along this spine can help strengthen this connection.

— Construct new modular wellness spaces near north and south extents of path for both quiet and loud activities
— Introduce more seating areas and pockets of landscape interventions as points of interest and areas for repose

Bolster Existing Wellness Corridor

Conceptualizing the area spanning Student Center, Commons, Crossett Library, and Meyer Rec Barn as a "Wellness Corridor" mediating between residential and academic life will help to improve the college community's overall quality of life.

— Introduce flexible furniture and distinct pockets to Crossett Library to expand its potential uses
— Move Word and Image Lab to new VAPA Studios and re-program with wellness program
— Perform deferred maintenance on Meyer Rec Barn and distribute wellness program into underutilized dance studio

Create New Student Center Hub

Rethinking the static arrangement of the current Student Center and containing student-facing programs into discrete, movable "rooms" can convert the space into a lively and valuable resource, molded by students.

— Incorporate existing student programs into modular, movable "rooms" that allow the entire area of the main student center to be activated for programming
— Renovate the current kitchen portion of the Student Center to house programs that students voiced a desire for, granting more space for student-facing programs
— Construct other portions of the 2019 Student Center Renovation plans

Form Campus Wide Trail Network

A campus-wide trail network, connecting the western trail to the rest of campus in a loop around the perimeter, offers boundless opportunities for recreation, respite, and enrichment not currently available on campus. A completed trail loop can offer access to unique ecologies on campus, serve as a hiking destination, and even a skiing or snowshoeing trail in winter months. Providing trail outlets along the route increases accessibility by difference Houses and departments.
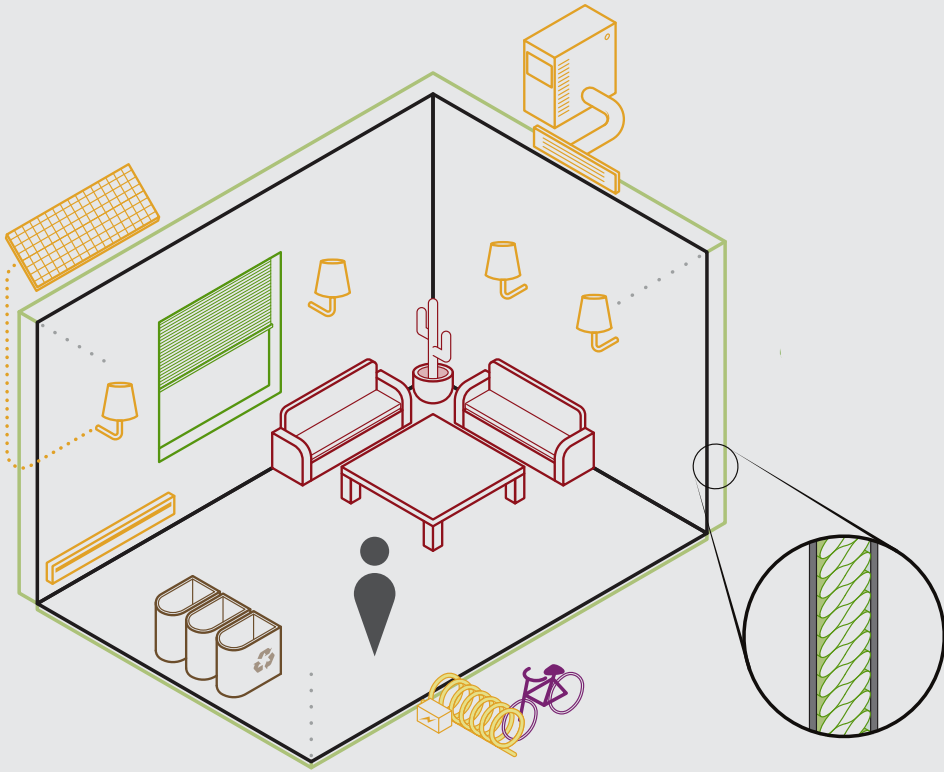
Recreation

Recommendations

Extend Recreational Activities to the Entire Campus

Working groups and survey respondents alike expressed a desire for the following diversity of recreational experiences:

— Campus as event space: Provide outdoor spaces of varying scale and infrastructural intensity to support activities from first dates, to birthday parties, to performances
— Campus as gym: Create a "Wellness Walk" loop trail around campus, containing both accessible and challenging routes, furnishings and exercise equipment, suitable for cross country skiing or snowshoeing in winter
— Campus as retreat, respite: Design with the intention to allow both gathering and solitude.

Improve Health & Comfort

Bennington College has various social and recreational spaces for students and faculty. These spaces range from the dining hall in Commons to the open court in the Student Center, and provide spaces to gather and socialize outside of classes. Occupant comfort should be a primary focal point for future social and recreational projects to ensure a better user experience. Atelier Ten has analyzed social and recreational spaces throughout campus to develop strategies that both maximize sustainability in these areas while enhancing occupant comfort. General sustainability and occupant comfort strategies for these spaces are outlined in the diagram.

Energy
— High efficiency mechanical systems with proper ventilation
— Occupancy sensors, daylight sensors, and LED lighting
— Renewable energy production

Envelope Upgrades
— Super insulated envelopes and triple pane windows
— Strategically installed glazing to maximize useful daylight
— Air sealing to minimize drafts

Transportation
— Transportation infrastructure such as bicycle racks
— Electric charging stations for electric bicycles and scooters
— Upgrades to landscape and walking paths to encourage student activity

Waste
— Recycling and electronic waste disposal infrastructure
— Composting program for buildings with food service areas
— Materials reuse system for items like art supplies

Materials
— Low/No VOC materials
— Vegetation and natural materials throughout the space
— Materials with good acoustic properties

iii.   Projects & Initiatives

This section highlights key projects and a full menu of potential initiatives which synthesize architectural, landscape, and sustainability recommendations from the previous chapter. These look to address zones of the campus through strategic moves to support the larger framework ideas and accommodate the need to grow.

Each zone starts with a sketch view of a key moment, outlines the major projects, and presents a full list of projects. These are part of the larger project matrix to support implementation outlined in the next section.

1.   Arrival & Academic Hill
2.   Forest Row
3.   Student Center & Fields
4.   Orchard Connector
5.   Jennings & Longmeadow
6.   Campus Ecosystems
7.   Sustainability Upgrades

Projects & Initiatives Summary

From initial analysis through scenario development, the team refined a set of six goals in relation to current issues and opportunities. These relate to the specific space constraints and opportunities of the existing buildings and landscape to support larger strategic goals of the college. They were developed in dialogue with the Strategic Plan work and note opportunities both on and off campus.

The student experience and academic growth is at the heart, providing the infrastructure for continued learning and innovation. There is a need for growth in the student body and with that the opportunity for developing new programs and fields of study.
Bennington College has been a leader in sustainability and these accomplishments have been widely recognized. The potential is to deepen this leadership with the existing ecosystems and become a model for how to adapt with climate change.

The next set of goals relate to the physical campus, reinforcing connections within the campus and new bridges to adjacent towns and the region. This may be through mobility improvements but also how campus buildings are utilized and open to multi-disciplinary work and community programs. A key part is the sense of arrival and orientation.

LONGMEADOW

JENNINGS

ORCHARD CONNECTOR

ACADEMIC HILL

ARRIVAL

ATHLETIC FIELDS

STUDENT CENTER

FOREST ROW

Living (Student)
Living (Faculty)
Learning
Shared Spaces
Systems & Support

1. Arrival & Academic Hill

A new visitor interaction with the campus today is unclear, with multiple intersections to navigate, a congested circle in front of the barn, and often extending to the west lot to find parking with a disorienting walk back to the center of campus. The campus safety booth often unintentionally functions as a welcome center.

In reframing a sense of arrival the major move is to utilize the hill between Cricket Hill House and south of VAPA which could be completed with a steam line replacement needed from Buildings and Grounds to VAPA. Creating a clear connection with the south entry points would streamline the visitor experience and create a new ah-ha moment. Providing a new drop-off area at the top of the hill will increase accessibility and provide new public programming connections. This could directly connect to both Admissions within the Barn as well as Usdan Gallery at the corner of VAPA and to the various performance spaces.

Right: View from new Arrival Loop looking towards Cricket Hill (right) and The Barn (left)
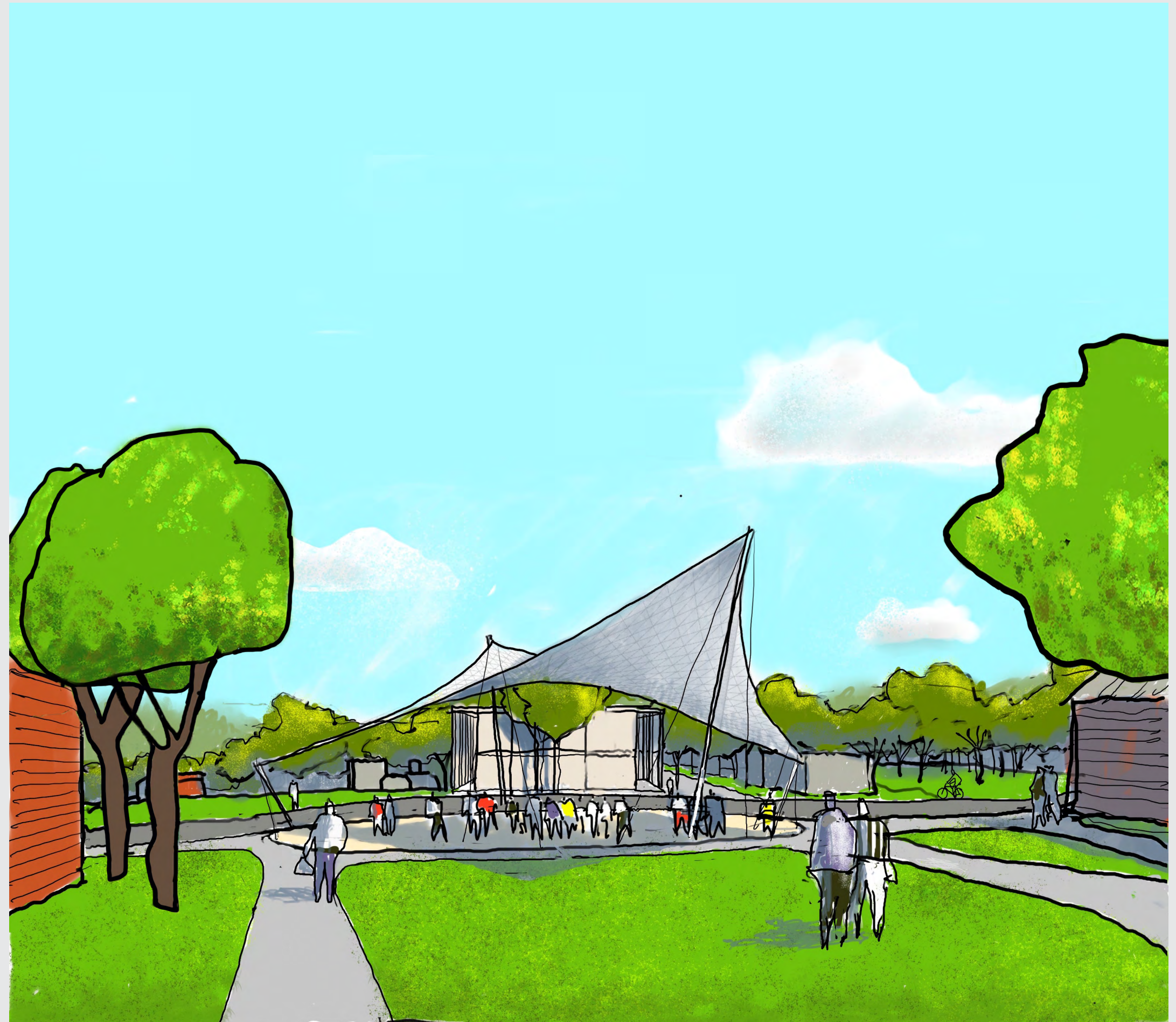
1. Arrival & Academic Hill

This transformation of the arrival experience to the east of the Barn would free the Barn Courtyard, Barn Circle, and College Drive to function as a new space for campus gathering. This is often utilized for Student or Alumni events with a small tent or tables placed in the center of the circle. Improving the pedestrian experience along College Drive and connecting this circle to the Barn Courtyard would enable an improved connection from the Colonial Houses to VAPA and center this side of Commons and Crossett Library as the historic core of campus. A temporary or permanent shade structure could enable a wide range of uses within this space from classes to convocation.

Right: View from Barn yard looking towards Crossett Library

1. Arrival & Academic Hill

Big Moves

New Arrival Experience

The proposed new arrival loop and entry sequence would bring visitors closer to the center of campus. Proving a clear drop-off point and covered outdoor gathering would support both everyday shuttle usage and part of admissions and tour experience. This underutilized space at the top of the hill provides a view of Bennington Monument and hills around.


Student Services Hub

As the founding building on campus, the Barn is a spectacular example in reuse and adaptation. This is exemplified through the recent renovation of the southeast wing. The renovation provided a new gathering hub, classroom, and offices which area an example for re-envisioning and fully utilizing the balance of the space. One key move is to create a new East-West Connector with a student services hub at the core.

Amplifying & Extending VAPA

VAPA is an incredible heart of creativity on campus and a high-value space proposed to amplify through a number of reconfigurations and improvements within as well as additions on east and west ends. Improvements to Usdan Gallery would provide a new public face and accessibility to programming and studio additions to the west would consolidate disparate and needed working space in support of VA along with potential for new digital fabrication space.
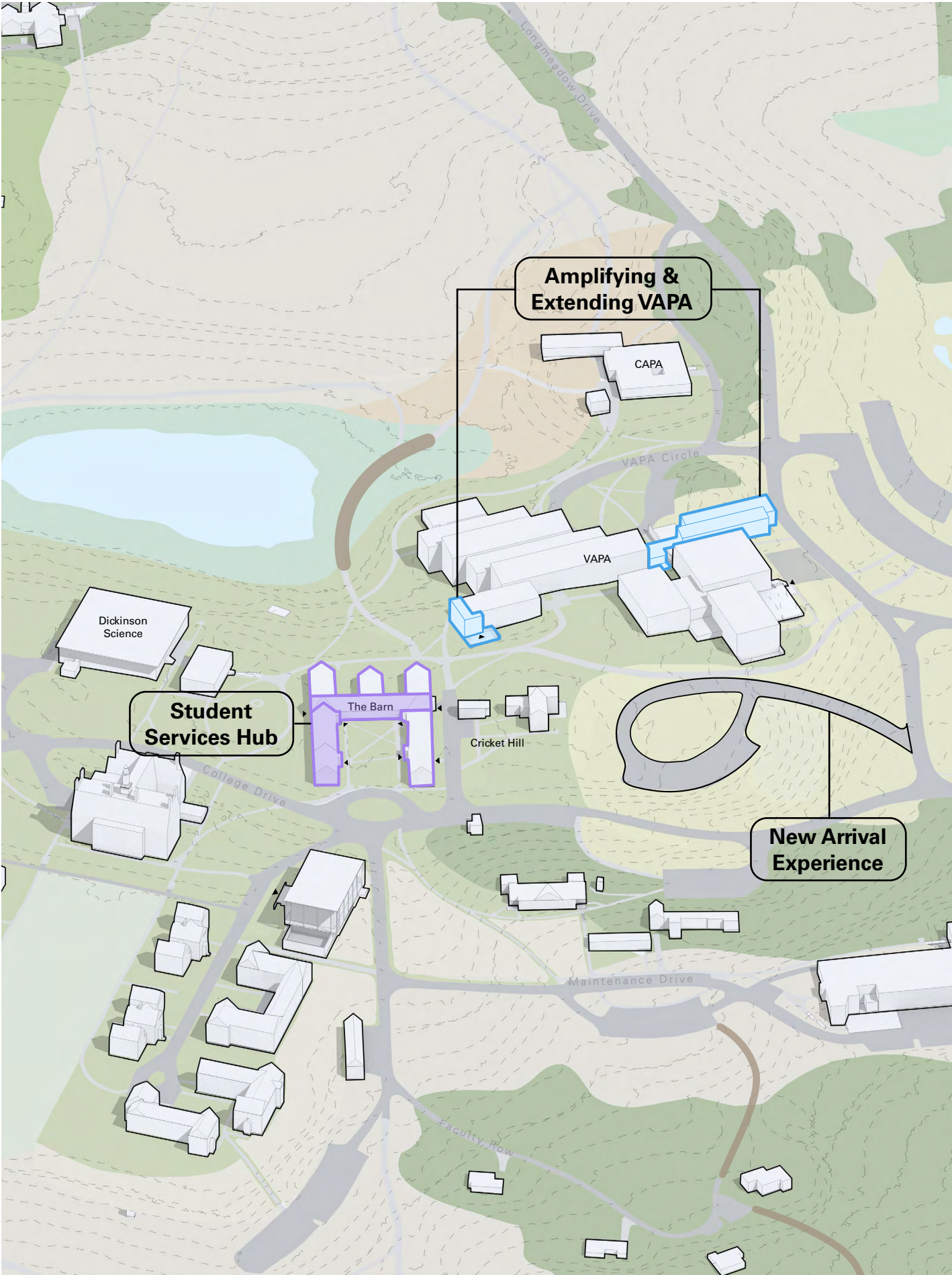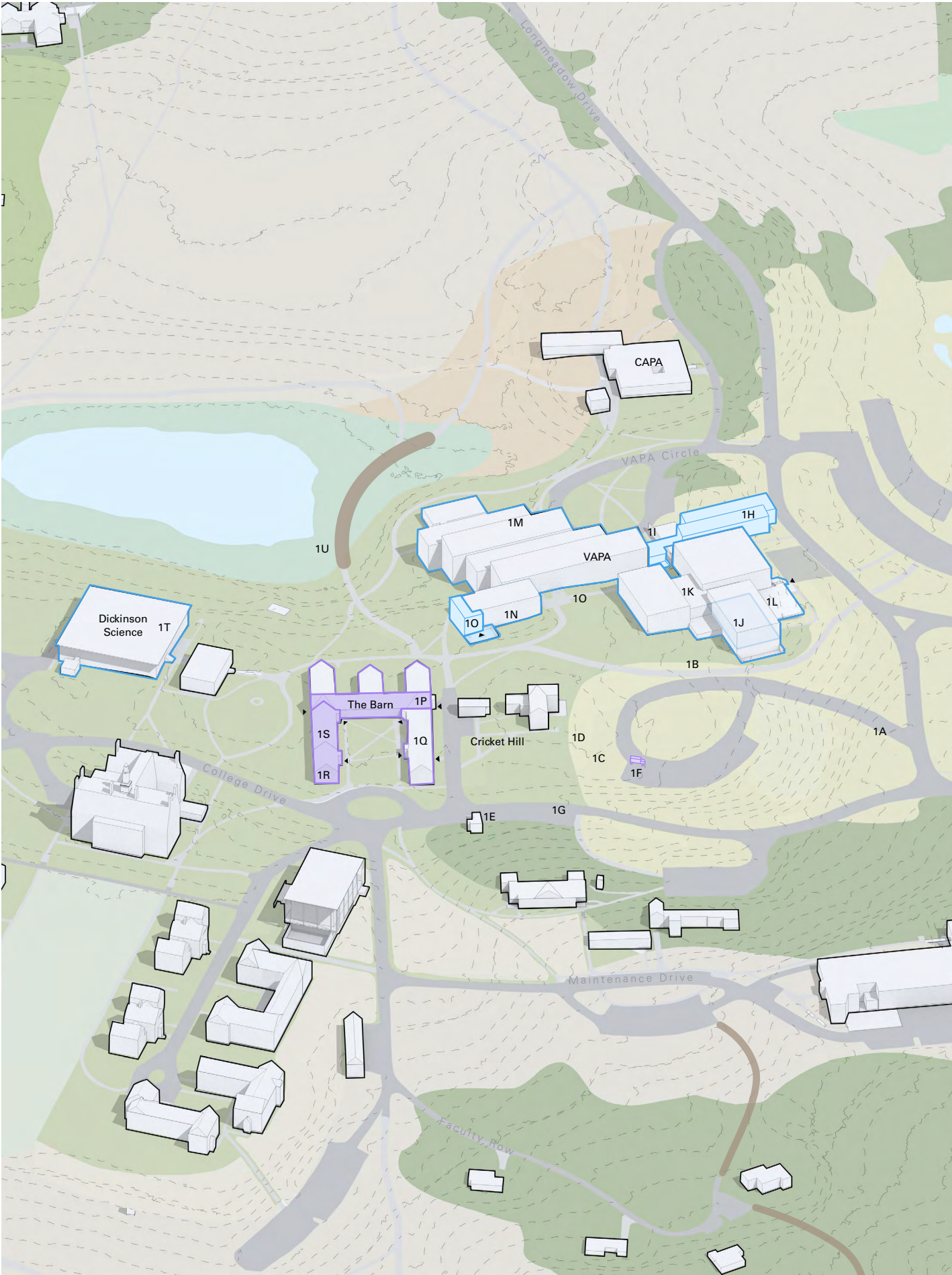
1. Arrival & Academic Hill

Project Menu

1A Arrival Loop
Clarify arrival with a new road and entry sequence

1B Arrival Links
Create new paths to the Barn, VAPA, and VAPA lots

1C Arrival Gathering
Create a new viewpoint from the top of the hill by Cricket Hill House Porch with Outdoor Gathering for tour groups and shuttle access

1D Wayfinding
Clarify campus circulation with signage and lighting starting from new main visitor access point

1E Security
Decouple campus safety and welcome experience, potentially relocate and expand safety booth

1F Shuttle Connections
New shuttle connections on Longmeadow Drive to North Bennington

1G Separate Modes
Design paths primarily for pedestrians and improve bicycle infrastructure

1H VAPA Studios
Consolidate disparate Visual Arts studios into new building connected to VAPA, consolidate digital fabrication equipment to new making space off VAPA Circle

1I VAPA Multipurpose
Build a new room over Topnotch Terrace area as central addition to existing structure and solving maintenance issue

1J VAPA Greenwall
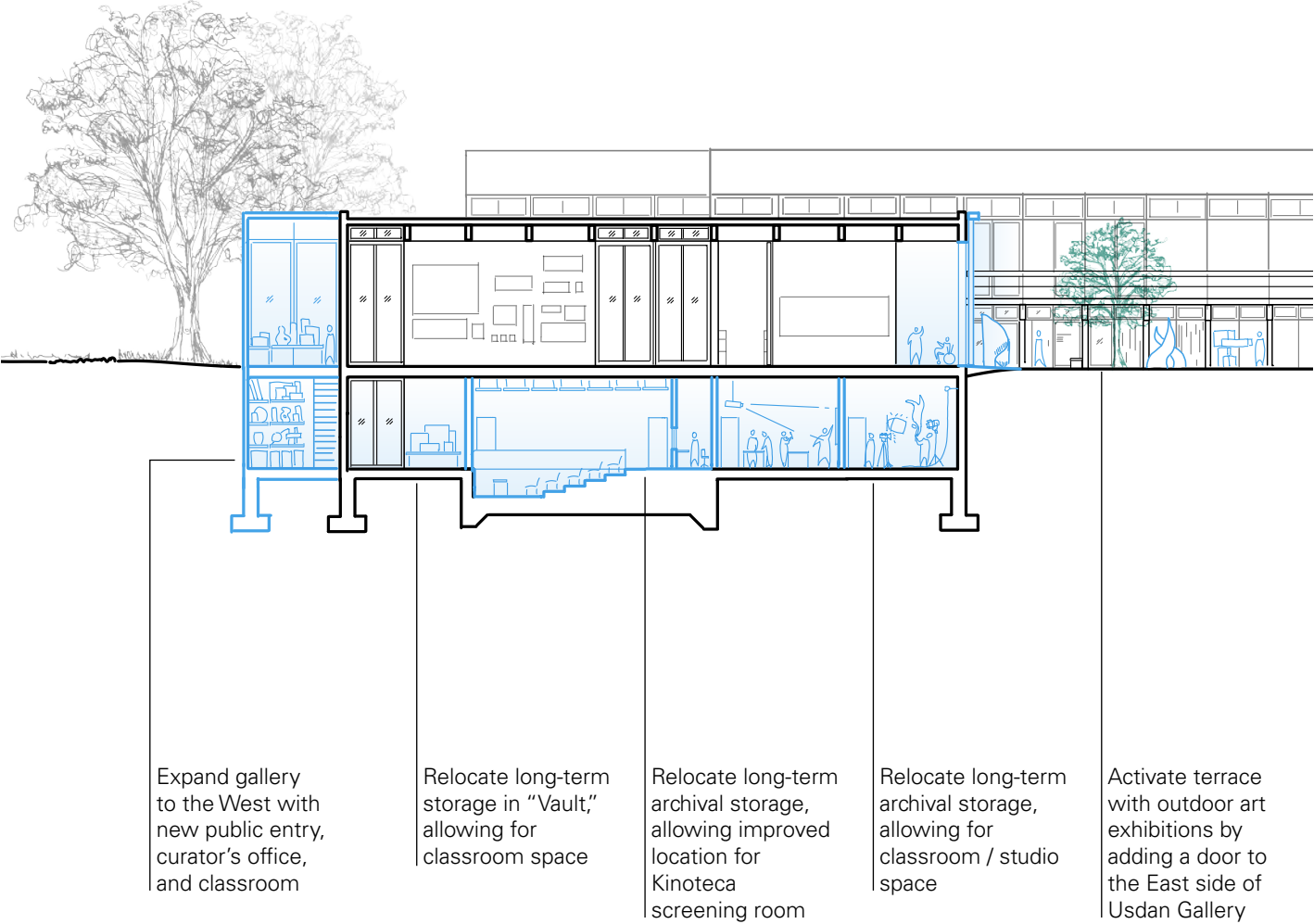Add a floor level at Greenwall Auditorium to include new storage and classroom space below

1K VAPA Acoustics
Add acoustic insulation to key shared walls and consider vestibules for further buffering

1L VAPA Terrace
Create infrastructure for movies at Petrie Terrace with projections screen, portable projector and chairs

1M VAPA Sculpture
Add a floor over sculpture area with access from Galleria

1N VAPA Kinoteca
Optimize storage with new location by Buildings and Grounds to free up classroom space and improved location for Kinoteca

1O Usdan Gallery
Expand gallery to the West with new public entry, curator's office, and classroom. Activate terrace to the East with a new door to Gallery

1P Barn East-West Connector
Unify isolated student supporting admin offices into larger open spaces, and create entry on the West, facing Commons

1Q Barn Southeast Wing
Complete interior building of lower level of new Southeast Wing, infrastructure in place

1R Barn 100 Repurposing
Update historic and underutilized tiered lecture hall with new technology and furniture

1S Barn West Wing Rebuild
Rebuild entire western wing of the barn and add second floor, similar to 2022 SE Wing renovation

1T Dickinson Storage
Relocate storage and create new teaching/lab space
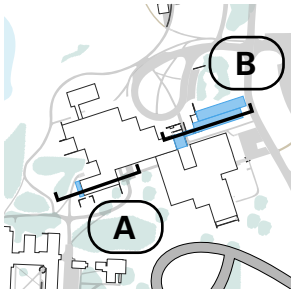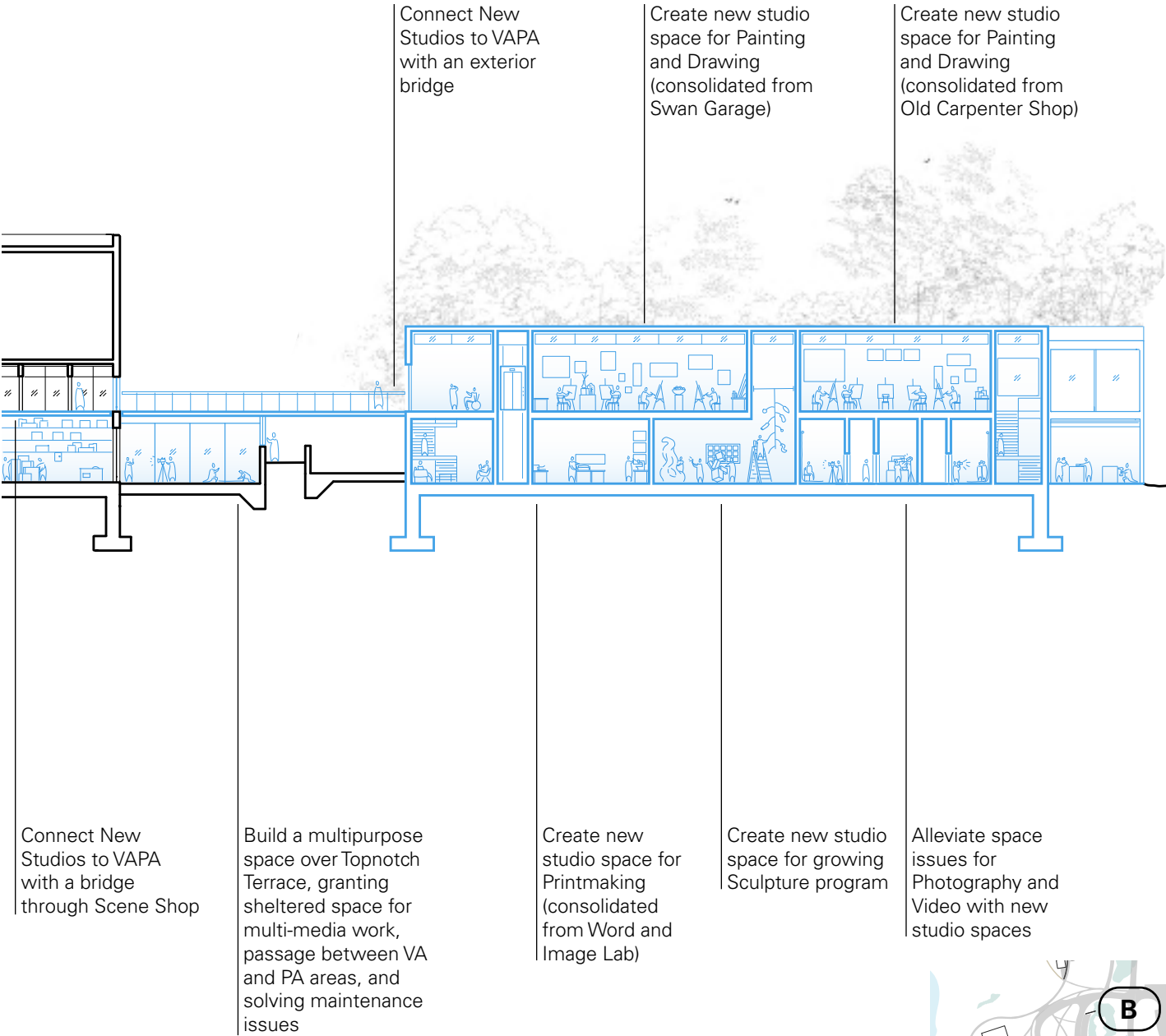
1U Boardwalk
Engage pond edge with new accessible boardwalk

1. Arrival & Academic Hill

Projects Combined

A. Improved Usdan Gallery Section

Expand gallery to the West with new public entry, curator's office, and classroom

Relocate long-term storage in "Vault," allowing for classroom space

Relocate long-term archival storage, allowing improved location for Kinoteca screening room

Relocate long-term archival storage, allowing for classroom / studio space

Activate terrace with outdoor art exhibitions by adding a door to the East side of Usdan Gallery

B. New VAPA Studio Section

Connect New Studios to VAPA with an exterior bridge

Create new studio space for Painting and Drawing (consolidated from Swan Garage)

Create new studio space for Painting and Drawing (consolidated from Old Carpenter Shop)

Connect New Studios to VAPA with a bridge through Scene Shop

Build a multipurpose space over Topnotch Terrace, granting sheltered space for multi-media work, passage between VA and PA areas, and solving maintenance issues

Create new studio space for Printmaking (consolidated from Word and Image Lab)

Create new studio space for growing Sculpture program

Alleviate space issues for Photography and Video with new studio spaces

2. Forest Row

The set of four faculty homes off Old Faculty Road is a place many students do not frequent or perceive as part of the campus, tucked on the edge of the forest on a dead end road. Currently consisting of shared faculty housing, this location is less desirable for faculty given its districting and separate character. With increased housing options in Downtown Bennington and North Bennington there are more options being explored which will maintain the current faculty housing count.

Through improvements to Crossett and potential transformation of existing studio spaces there are programmatic and physical ways to knit this back into the campus. With conversions, additions, and new housing potential this envisioned to be a new cluster of student housing providing units with amenities such as a kitchen which could take the place of the function of Paran Creek today.

Right: View of Forest Row (currently Faculty Row)

2. Forest Row

Big Moves

Re-envisioning Crossett

Crossett Library is an incredible building and resource at a hinge point of the campus which provides both small classrooms, an array of quiet working spaces and a variety of resources. Increased accessibility at the northwest corner, flexible interventions within, and additional space at the southeast would increase utilization and centrality on campus.
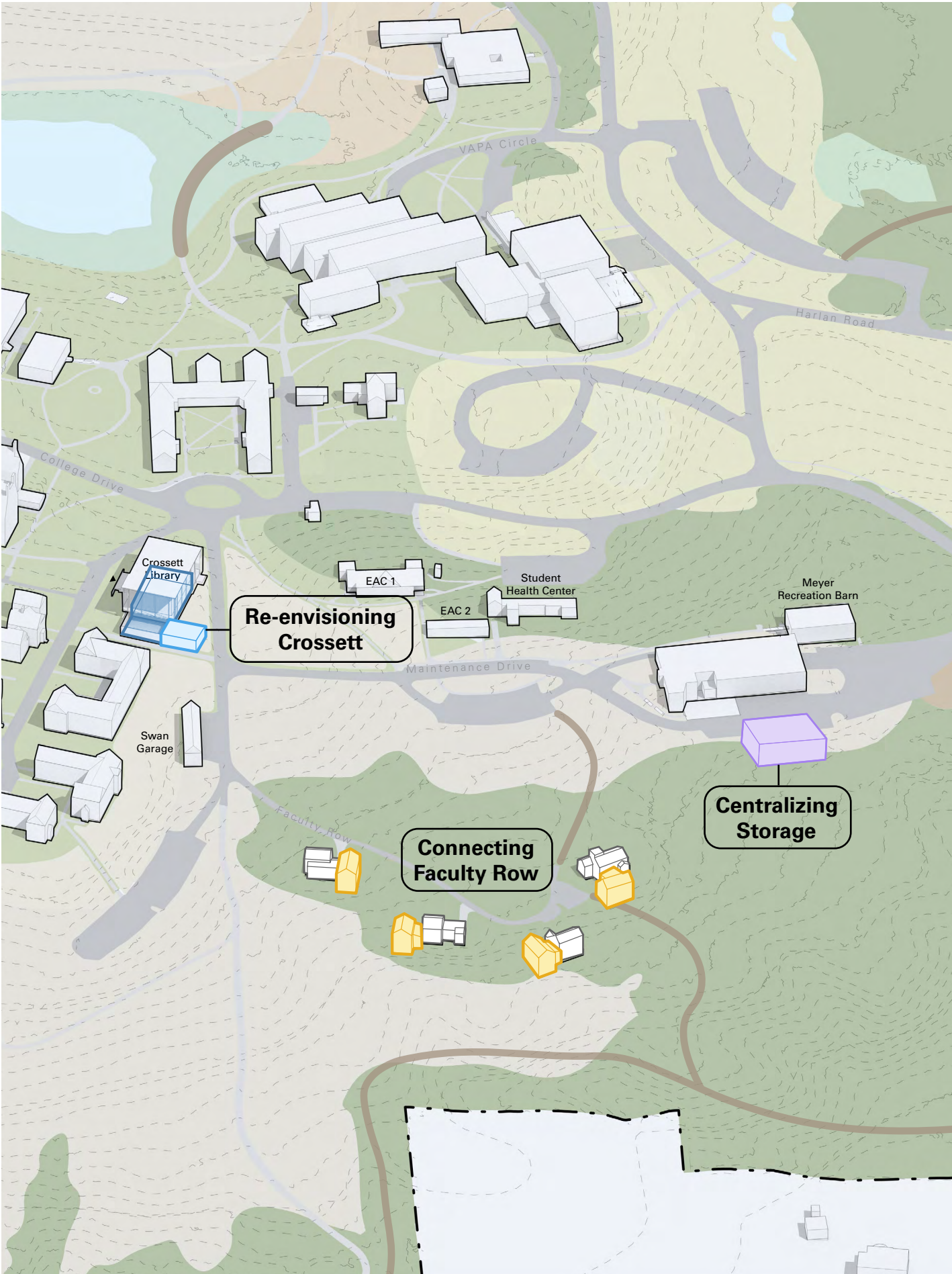

Connecting Faculty Row

Currently a tail of the campus to the southwest, Faculty Row provides an important level in aligning student housing need with growth. Reframing at Forest Row, connecting paths, and providing new common spaces along with the conversions, additions, and new buildings, would create a natural cluster of housing, organic with the context.

Centralizing Storage

Providing a new storage building near Buildings and Grounds would free up high-value space in many of the academic buildings. This could include archives currently adjacent to Usdan Gallery, various uses within VAPA, and IT uses within Dickinson. A simple building frame with appropriate materials, insulation, and heating/cooling would provide and efficient means to increase overall utilization.

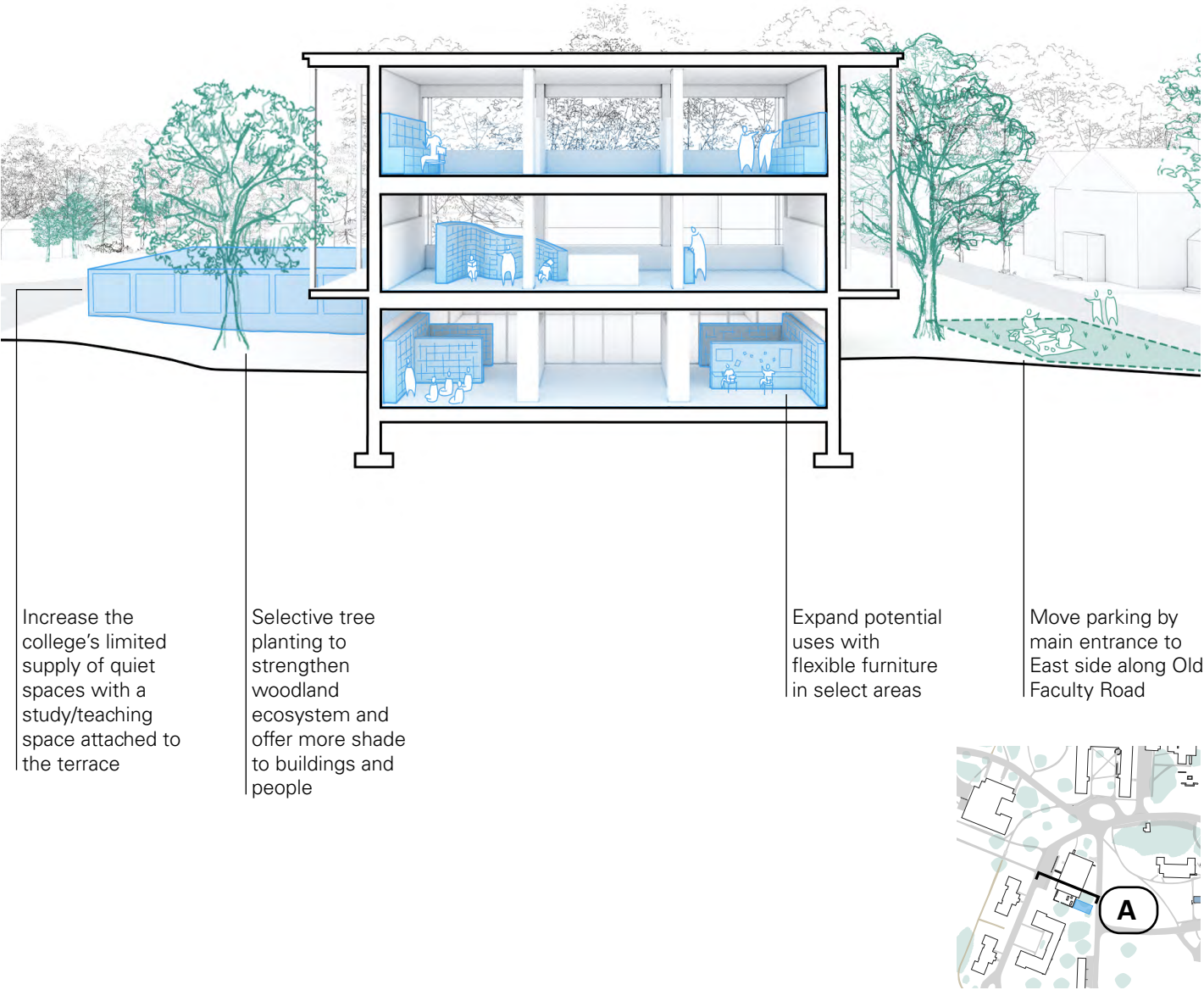# 2. Forest Row

Project Menu

2A Meyer Rec Barn Improvements
Renovate outdated fitness facilities and incorporate infrequently used dance studio for fitness/wellness programming

2B Auxiliary Fitness Center
Add Wellness modules near Meyer Rec Barn to support growing college community with additional fitness/wellness spaces around existing facility

2C Fitness Center Relocation
Repurpose program area and free spaces with relocated fitness to Student Center addition (see Student Center concepts)

2D Path Improvements
Improve accessibility and lighting on steep slope paths to lower parking areas and Buildings and Grounds

2E Word & Image Lab
Move print making equipment to new VAPA Studios and convert to recreational/wellness space

2F Storage Building
Alleviate high value academic spaces around campus by consolidating all long term storage items

2G Student Housing Conversion and Addition
Convert Faculty Row homes to a new student neighborhood, with added accessible entries, bedrooms, bathrooms, and vertical circulation to the garage side of existing buildings to increase house capacity

2H New Student Housing Construction
Build new student residences that step down along the hillside to support growth

2I Swan Garage Repurposing
Renovate Swan Garage as improved academic/teaching space with potential expansion, creating a new hub for SCT in tandem with the proposed Library addition to terrace

2J Crossett Accessibility
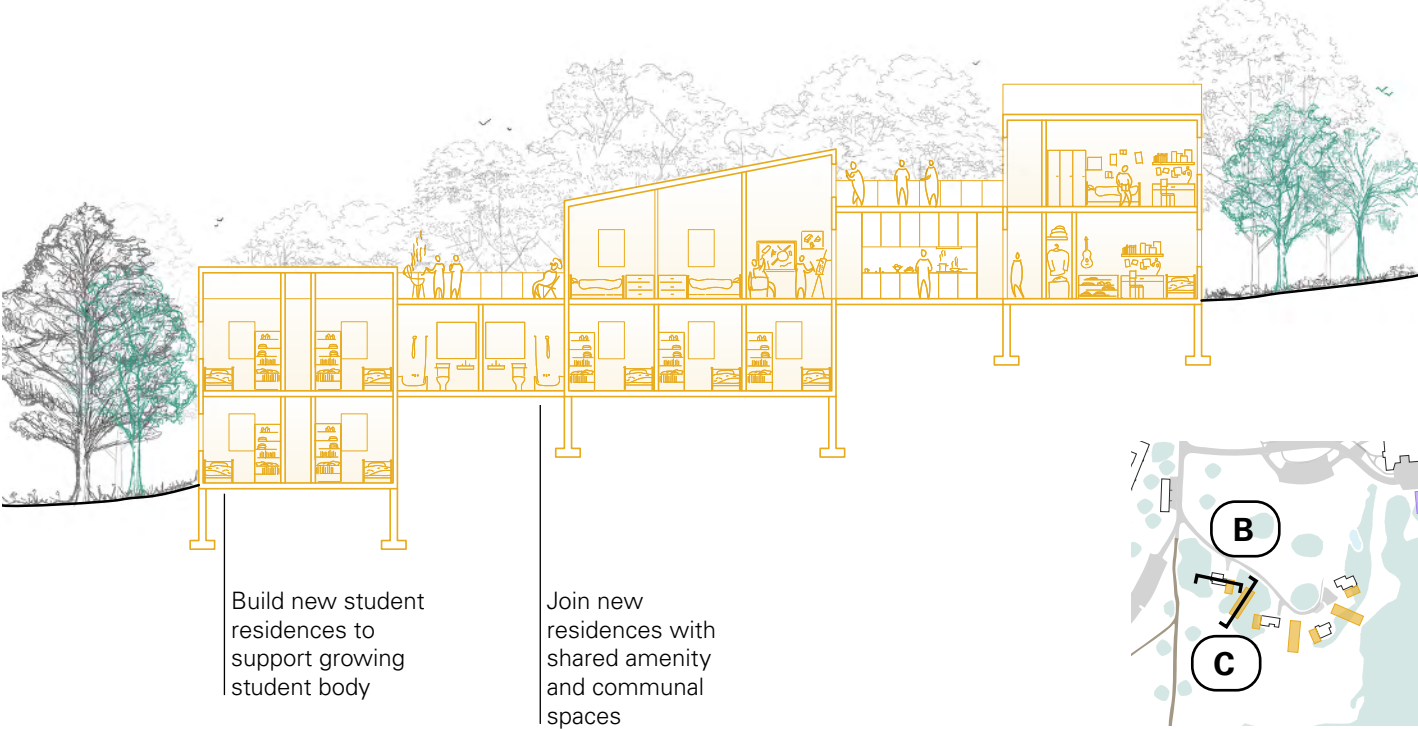Create new accessible connection from the northwest corner at grade to simplify access to Commons and the Barn

2K Crossett Interior
Enliven existing spaces with flexible furniture

2L Crossett Addition
Increase the college's limited supply of quiet spaces with a study/teaching space attached to the terrace

2M Relocate Crossett Parking
Move parking by main entrance to Crossett to the east side along Old Faculty Road

2N Path Connections
Create new pathways that connect from existing trail network and Forest Row neighborhood

2. Forest Row

Projects Combined

A. Crossett Library Section

Increase the college's limited supply of quiet spaces with a study/teaching space attached to the terrace

Selective tree planting to strengthen woodland ecosystem and offer more shade to buildings and people

Expand potential uses with flexible furniture in select areas

Move parking by main entrance to East side along Old Faculty Road

B. Student Housing Conversion & Addition

Construct additions to existing homes to increase capacity

Join new additions to garage side of existing home, renovate with shared amenities

Convert Faculty Row homes to a new student neighborhood

C. New Housing Construction

Build new student residences to support growing student body

Join new residences with shared amenity and communal spaces

3. Student Center & Fields

On the opposite side of the historic lawn, the Student Center and Upcaf/Downcaf anchor a broad swath of land with recreational potential. The Student Center itself, serving last as a Dining swing space for the Commons renovation, has been rethought by students and drawn conceptually as a multi-functional space providing increased recreational area, student office space, and flexible gathering area.

The athletic fields are also poised to be rethought to support an array of programs and serve as a transition point to an incredible set of trails which could be connected around the campus. To help highlight this potential network we propose to build a pavilion as part of this corner of campus to provide a new marker, space for quiet reflection, and anchor point for the network.
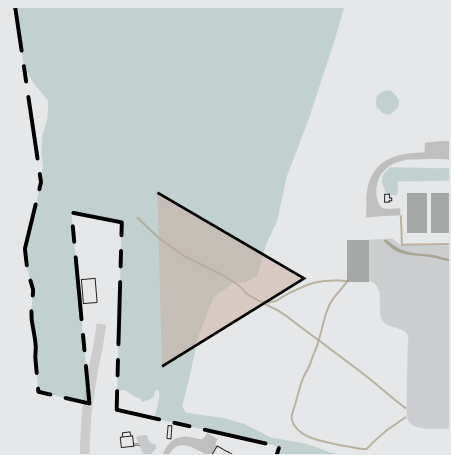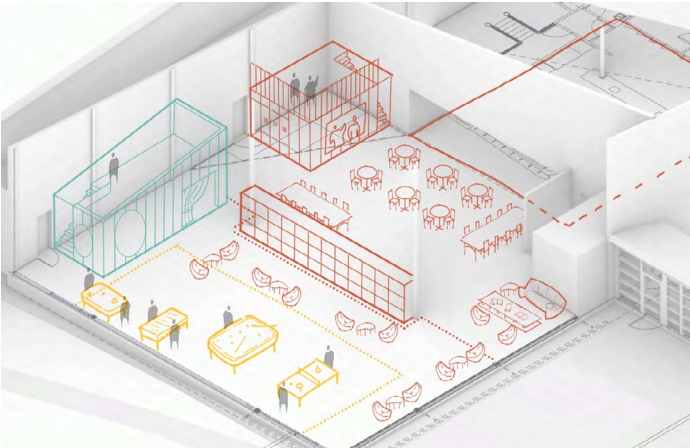

Right: View from path to Paran Creek, looking towards woodlands and Trailhead Pavilion
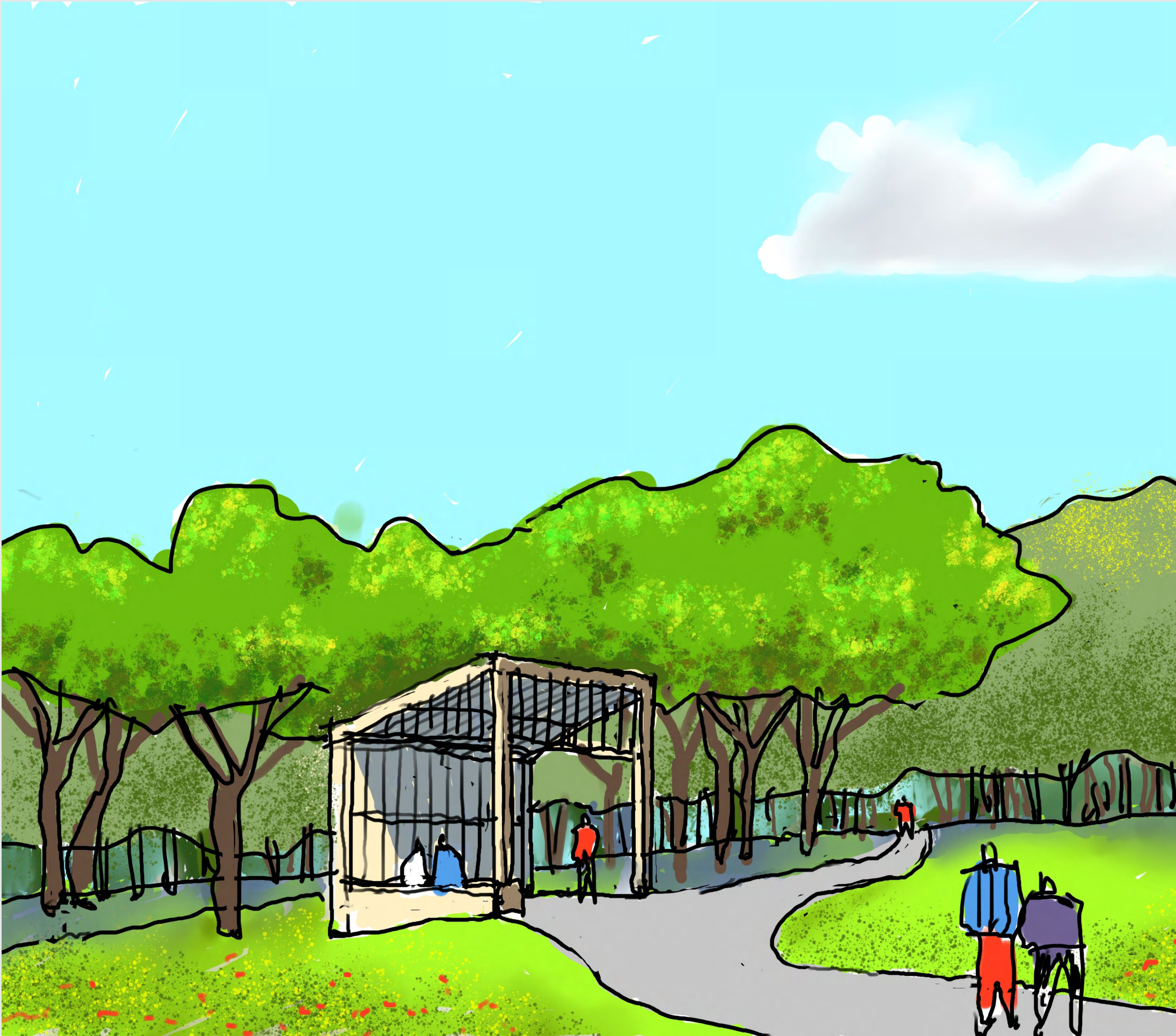
3. Student Center & Fields

Big Moves

Remaking the Student Center

Given the pandemic and new trends in recreation and wellness, along with changing student needs, a first step would be to restudy and build off the concept design which was completed in 2018. Student organization offices needed as well as a more dynamic way to use the building. We propose a flexible adaptation of the center space with movable furniture to support various scales and types of activities.
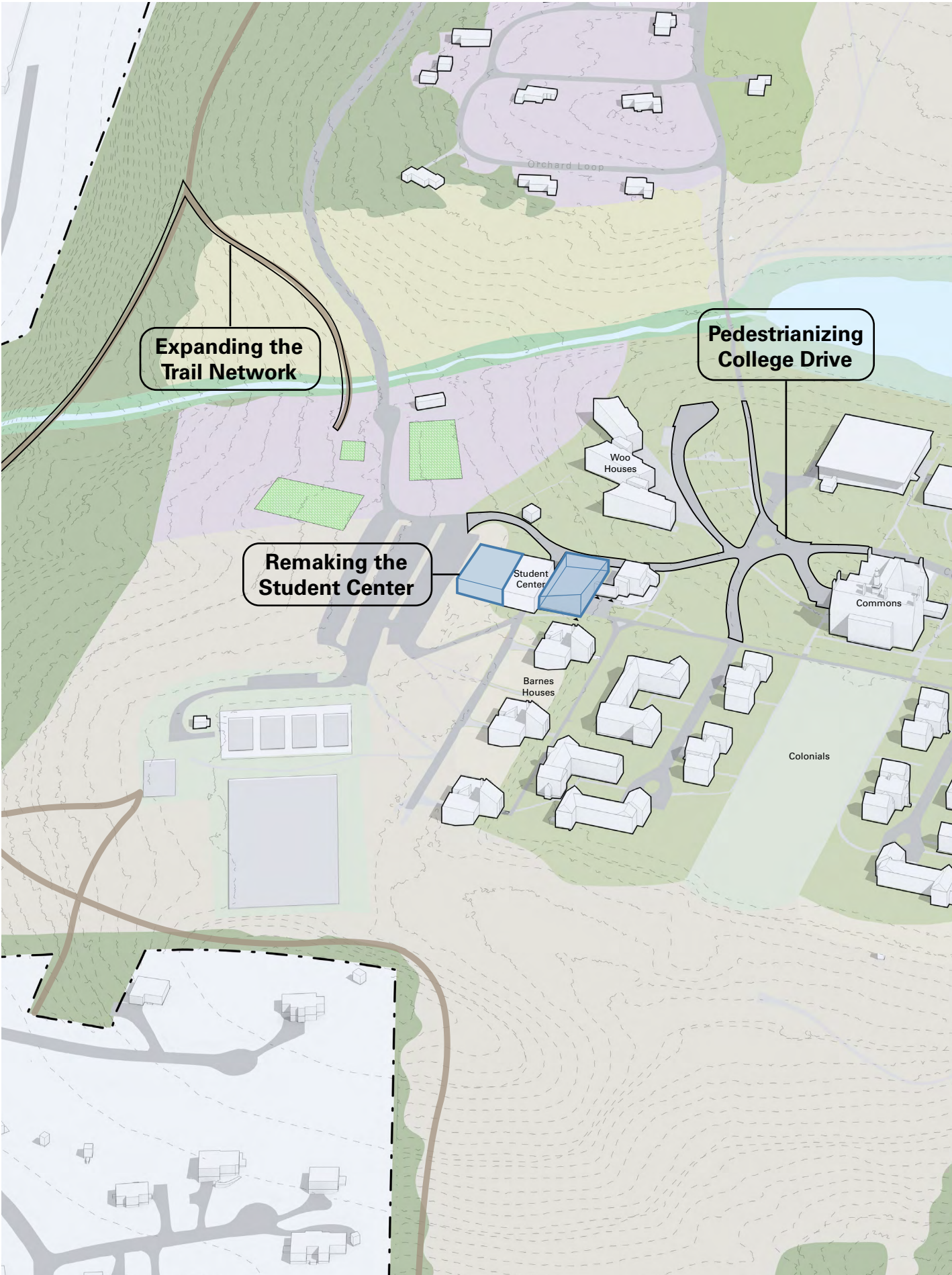

Pedestrianizing College Drive

Part of the navigational issues in this portion of campus are the web of paths and undefined intersections. As a result the Student Center and Orchard seem perceptually disconnected. With a reduction in traffic from the new arrival loop, we would look to remake this series of paths in line with the pedestrian and bicycle circulation needed.

Expanding the Trail Network

With a key gateway from the Athletic Fields, one main proposal is to complete the trail network along campus perimeter from north entry to main entry, activating trail with landscape nodes for socializing and enjoying respite, infrastructural upgrades to support learning, and supporting paths that access various academic precincts around campus.

Expanding the Trail Network

Pedestrianizing College Drive

Remaking the Student Center

Woo Houses

Student Center

Commons

Barnes Houses

Colonials

3. Student Center & Fields

Project Menu

3A	**Student Center Renovation**
	Full interior renovation based on 2018 schematic design of kitchen area and Upcaf/Downcaf
3B	**Indoor Gym Expansion**
	Extend Student Center addition by twice its length with expanded space for fitness and recreation program
3C	**Flexible Modules**
	Diversify potential uses inside the primary building with movable and modular "rooms" built within the space
3D	**Exterior Recreation**
	Potential for various activities in paved area south of Student Center addition which could include skate park features, handball, etc.
3E	**Trailhead Pavilion**
	Mark new campus trail entries with an open air pavilion
3F	**Commons Deliveries**
	Improve access and delivery sequence to Commons to support greater pedestrian accessibility to the center and north of campus
3G	**College Drive**
	Improve pedestrian and bike priority through the center of campus
3H	**Campus Trail Entries**

4. Orchard Connector

Stepping across the small bridge to the north of campus can seem like you are entering another place. Heading up the hill to the Orchard Houses, Dean Carriage Barn, and Jennings can seem like another campus given the quiet nature, and the distance extended. The gate to North Bennington seems even further though it is only a 15-minute walk from Commons.

There is also a character of place these projects are looking to expand on while making the path a more dynamic transition. Increased density of student housing will bridge the divide and the road has a potential to be flanked by a series of spaces for wellness and the arts, such as an outdoor performance space to the south of Dean Carriage Barn. With lighting and path accessibility improvements this has the potential to knit together the campus in line with its rural character.
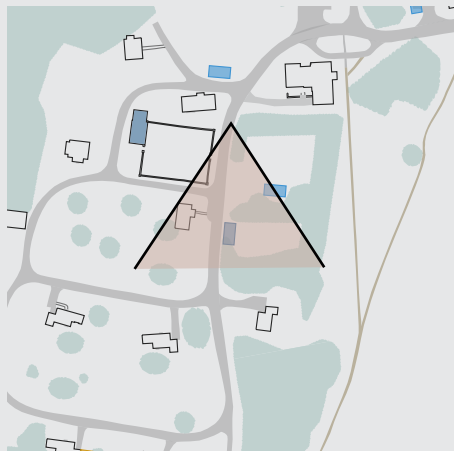
Right: View from beside Secret Garden looking South towards Orchard

4. Orchard Connector   Big Moves

Strengthen Character

Given the Orchard's loop roads and single family homes, the spaces between can seem leftover but can form places in line with the topography and framing of a greater density of activity. The lawns within each loop, as well as the special nature of the Secret Garden can be amplified through new landscaping and common outdoor gathering spaces.


Teaching & Wellness Modules

In two key locations along this path, modular structure and decks can serve as flexible spaces for small group use to quiet reflection. We would propose locating the first at the edge of the woods just off the pond and second heading up the hill with a backyard clearing for outdoor fitness and recreation.

Partial Orchard Conversions

Balancing the need for growth in student housing and providing faculty housing, one scenario discussed is maintaining four of the Orchard Homes for Faculty Use, primarily for families new to the College. The south edge of homes has potential for conversions, additions, and new building in strategic places between.
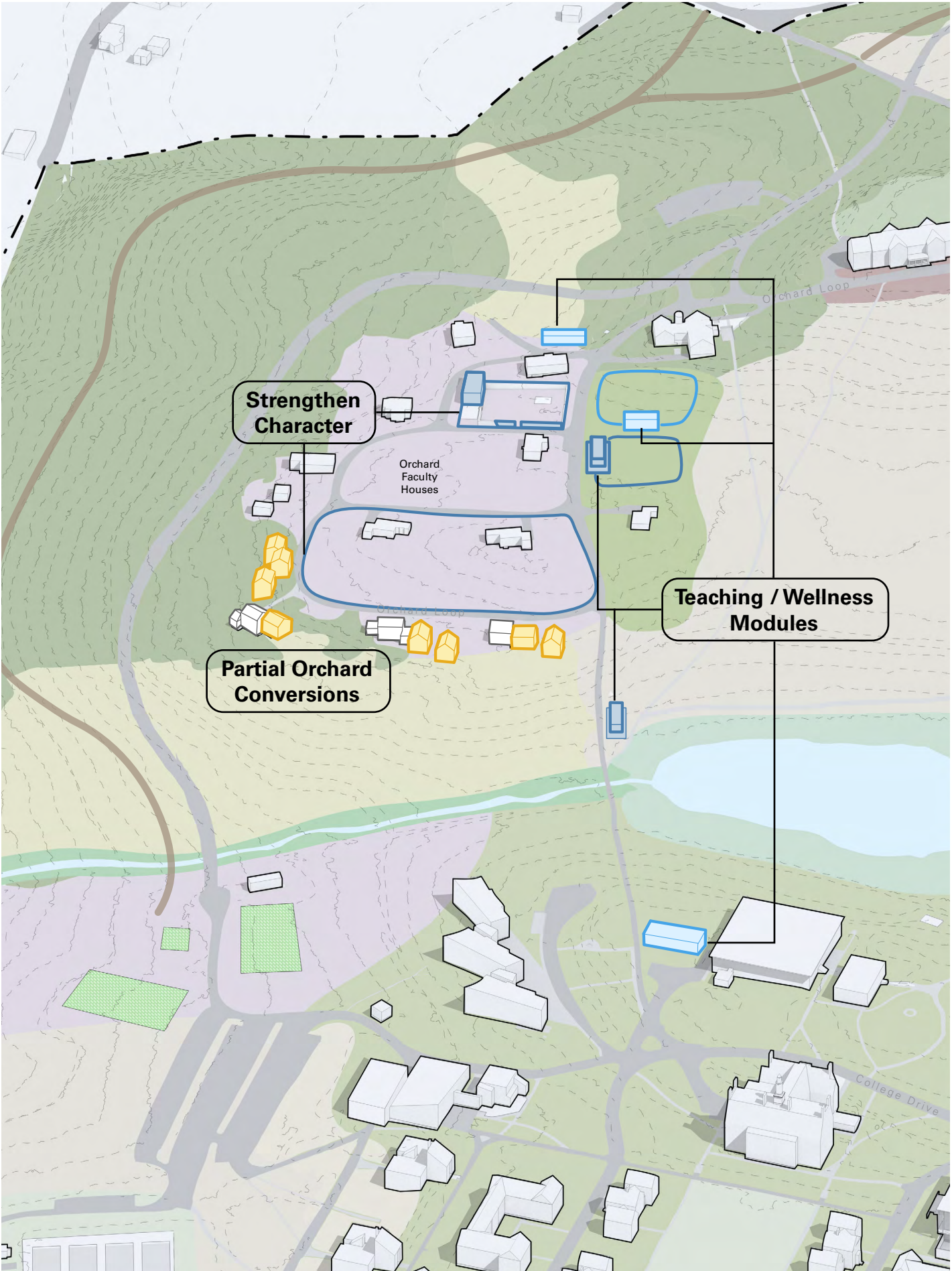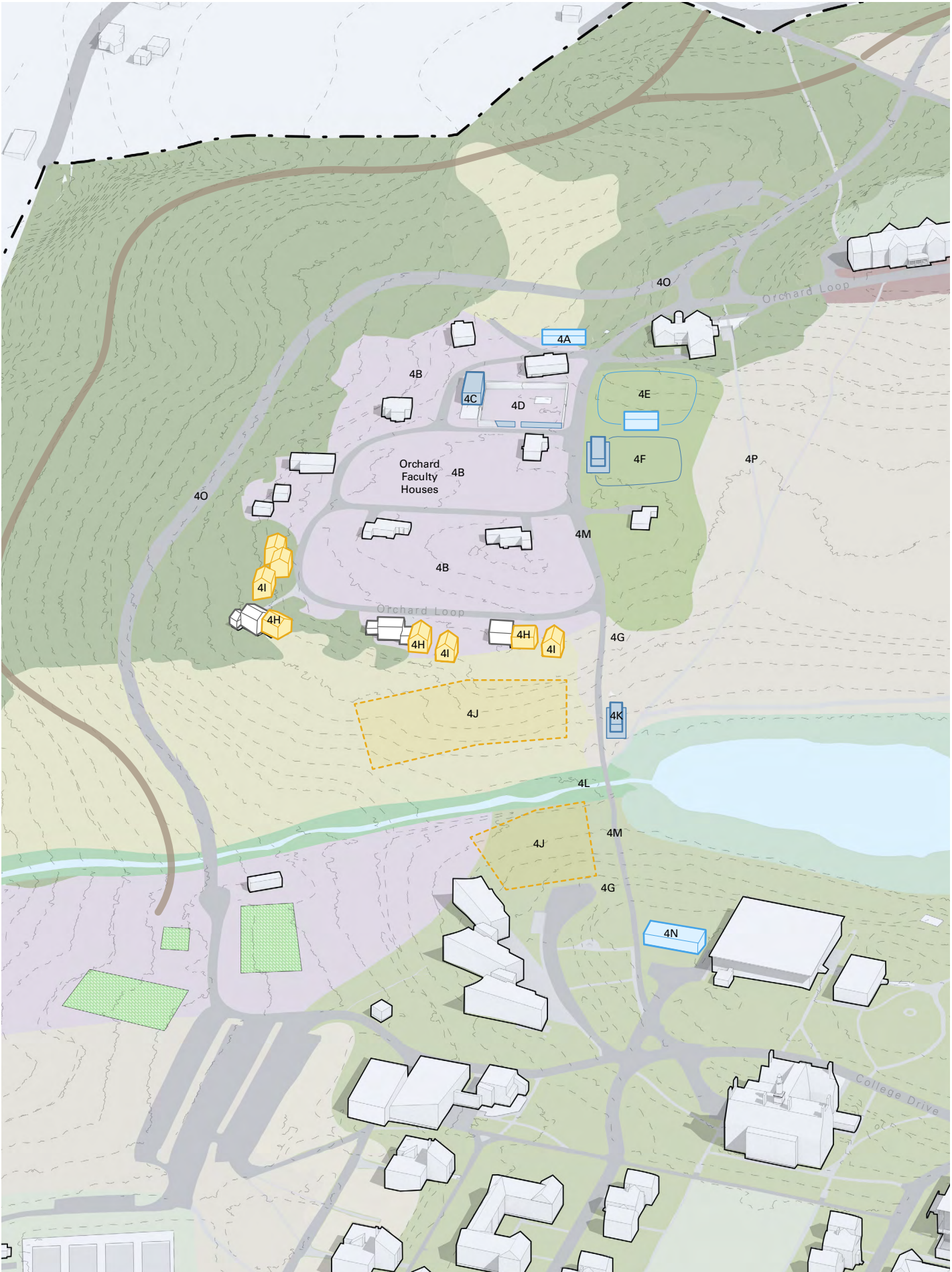
4. Orchard Connector

Project Menu

4A   **Added Teaching Spaces**
Potential location for small music practice / conventional teaching space to support growth

4B   **Orchard Tree Planting**
Expand orchard by continuing tree planting

4C   **Old Carpenter's Shop Repurposing**
Renovate Old Carpenter's Shop as a quiet study/teaching space

4D   **Secret Garden Improvements**
Enclose Southern portion of Secret Garden, maintaining entries from Orchard Path and Old Carpenter's Shop

4E   **Hedgerow Room**
Enliven existing clearing with added music practice space and porch near the bottom of the hill for outdoor performances

4F   **Wellness Space Addition**
Add Wellness module near Orchard Path, leaving the adjacent clearing open for outdoor fitness/recreation

4G   **Support Forests**
Plant young canopy and understory trees among existing mature trees to foster multi-aged forest over time

4H   **Student Housing Conversion and Addition**
Convert 3 Southern Orchard homes to a new student neighborhood, with added accessible entries, bedrooms, bathrooms, and vertical circulation to the garage side of existing buildings to increase house capacity

4I   **New Student Housing Construction**
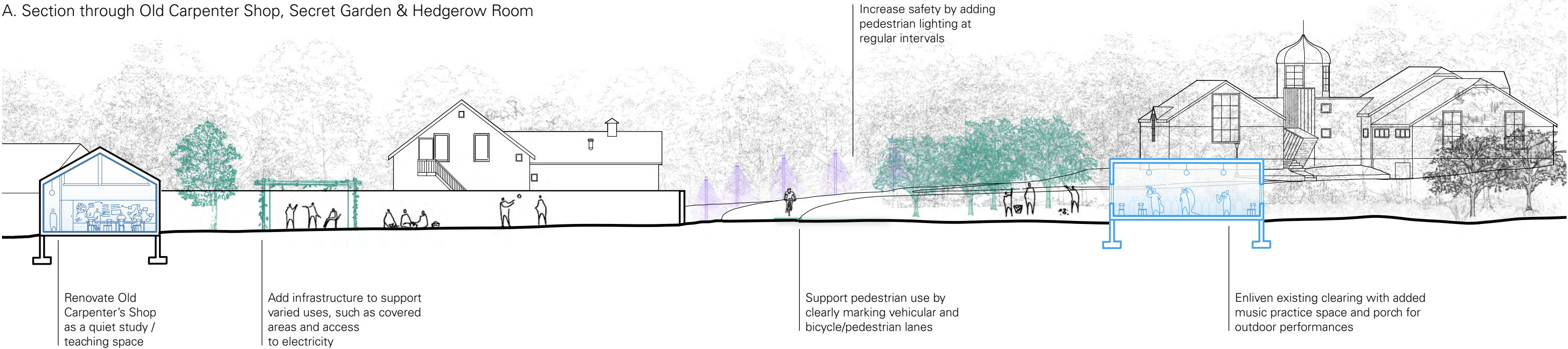Build new student residences that neighbor existing homes to support growth

4J   **Potential Future Housing Sites**
Build new student residences that add 120 beds (approx. 60 / site) in 3 years to support growth long-term growth

4K   **Wellness Space Addition**
Add wellness module as a folly along Orchard path, occupied by a quiet wellness program

4L   **Invasive Species Removal**
Selective clearing and re-planting of invasives will aid ecosystem health and open views along the western corridor, visually and physically re-connecting the core to the orchard

4M   **Separate Modes**
Design paths primarily for pedestrians and improve bicycle infrastructure

4N   **Dickinson Lot**
Support growth with additional classroom, study, and lab spaces connected to Orchard Path

4O   **Connection**
Perimeter loop road for isolated vehicular travel and access

4P   **Connection**
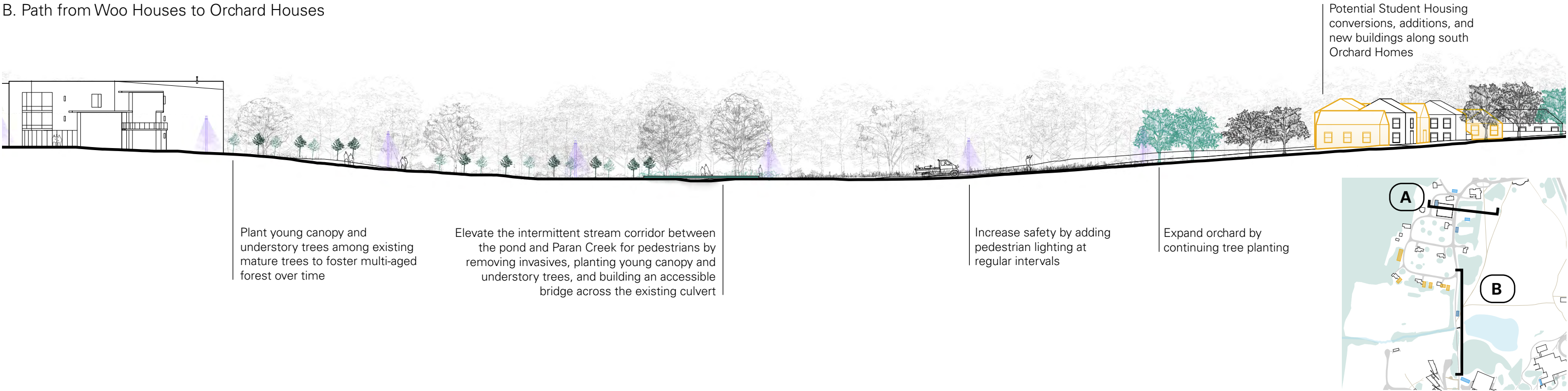Reinforce mown path with regular maintenance and additional seating

4. Orchard Connector

Projects Combined

### A. Section through Old Carpenter Shop, Secret Garden & Hedgerow Room

Increase safety by adding pedestrian lighting at regular intervals

Renovate Old Carpenter's Shop as a quiet study / teaching space

Add infrastructure to support varied uses, such as covered areas and access to electricity

Support pedestrian use by clearly marking vehicular and bicycle/pedestrian lanes

Enliven existing clearing with added music practice space and porch for outdoor performances

B. Path from Woo Houses to Orchard Houses

Potential Student Housing conversions, additions, and new buildings along south Orchard Homes

Plant young canopy and understory trees among existing mature trees to foster multi-aged forest over time

Elevate the intermittent stream corridor between the pond and Paran Creek for pedestrians by removing invasives, planting young canopy and understory trees, and building an accessible bridge across the existing culvert

Increase safety by adding pedestrian lighting at regular intervals

Expand orchard by continuing tree planting

5. Jennings & Longmeadow

The Jennings Estate to the north has a stately presence from the south of campus and offers an even more incredible view from the patio to the south. Given the age of the building there is a long list of maintenance needs and upgrades to effectively serve the music program. This series of proposals looks to expand Jennings presence in anchoring this part of campus and making it a part of the greater whole.

Geographically the north patio is close to the north gate and lawn but needs to be re-envisioned as a new loop and cluster. With the clearing of trees and slope down to the north this has a potential to provide new faculty and student houses which do not impede the existing viewpoints over the central meadow.
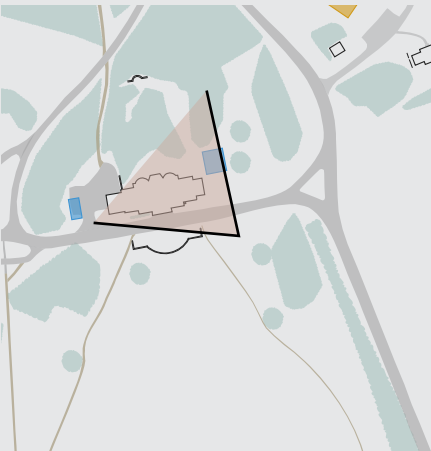
Right: View in front of Jennings

5. Jennings & Longmeadow
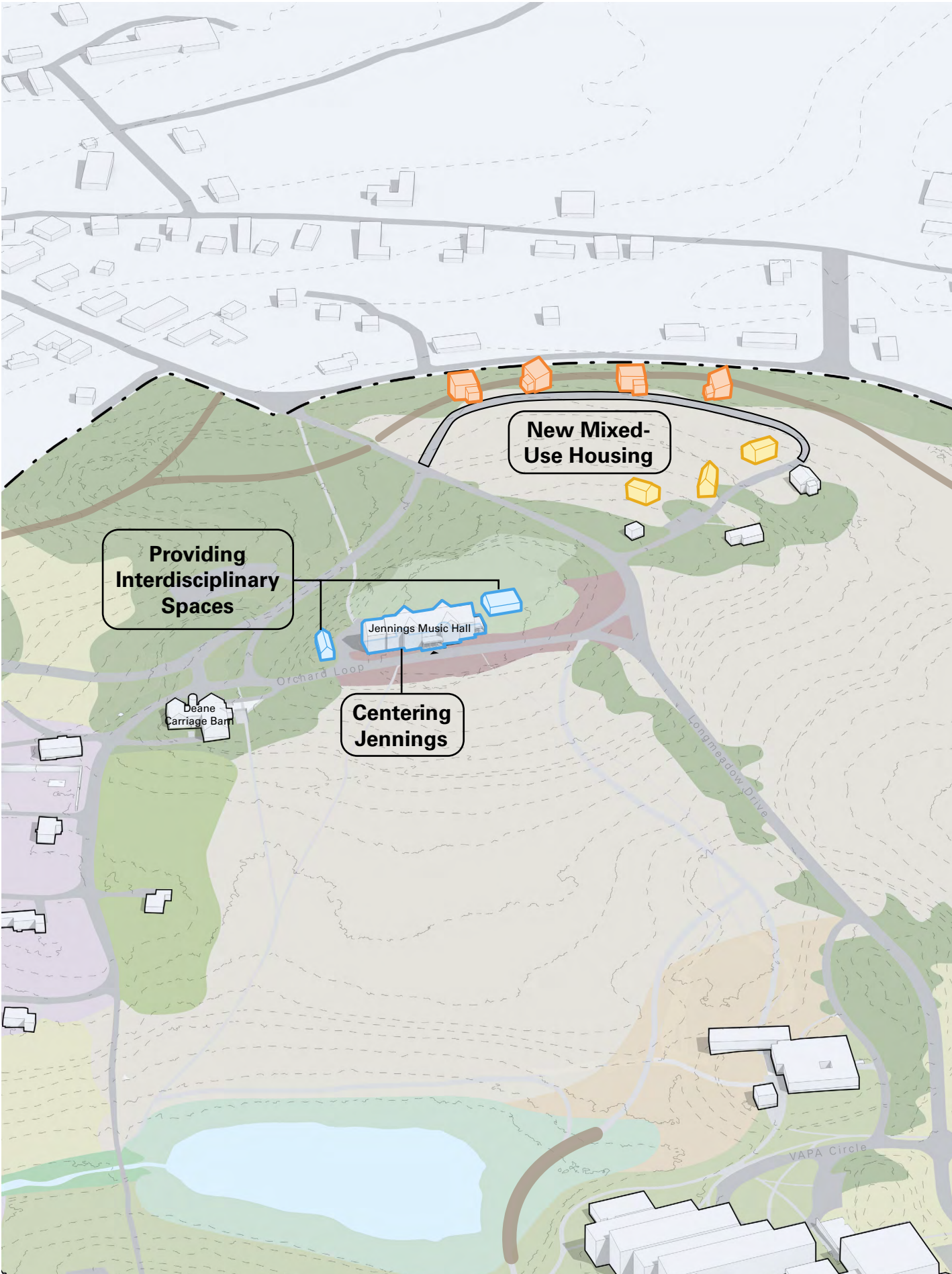
Big Moves

New Mixed-Use Housing

The clearing to the north of Jennings Drive has potential to offer new types of mixed-use living and working. The concept shown includes a loop road around from the existing Longmeadow student house to near the north gate with faculty housing and potentially studio space respecting scale and spacing along College Road to the north. New Student housing can also be provided to the south.

Centering Jennings

Jennings functions for the music programming but adjustments and improvements can extend the use of this building into a new hub for the campus. The ground floor has a potential to open and extend use to the south patio and north clearing. The basement can be renovated to provide new classroom and office space with light well, and upper rooms can be improved with technology and sound functionality.

Providing Interdisciplinary Spaces

In addition to what can be provided in the building, small structures adjacent can provide complimentary program space and the opportunity for state of the art small group and rehearsal space which is knit within the landscape. This will open and extend the functionality of the building and opportunity for cross-disciplinary use.

New Mixed-Use Housing

Providing Interdisciplinary Spaces

Jennings Music Hall

Deane Carriage Barn

Centering Jennings

Orchard Loop

Longmeadow Drive

VAPA Circle

5. Jennings & Longmeadow

Project Menu

5A **Jennings Rehearsal Space**
Support interdisciplinary ventures with a new space for large group rehearsals and performances beside Jennings

5B **Jennings Backyard Lightwells**
Integrate lightwells in the backyard of Jennings that allow light and air into basement spaces

5C **Jennings Basement Buildout**
Renovate as much of the basement as possible - with initial focus on Western rooms with daylight access - to create music studios and practice rooms with acoustic isolation

5D **Jennings Renovation**
Improve soundproofing between practice rooms and faculty offices

5E **Jennings North & South Terraces**
Reinvigorate and expand existing terraces to make functional and accessible

5F **Music Practice Rooms**
Potential location for small music practice / conventional teaching space to support growth

5G **Potential Parking Lot**

5H **Campus Trail**
Construct and complete campus trail loop across campus

5I **Longmeadow Student Homes**
Support long-term growth with new student housing in existing Longmeadow area

5J **Longmeadow Faculty Homes**
Support long-term growth with new faculty homes near College Rd, with potential to be rented during non-academic seasons

5K **Longmeadow Extension**
Extend existing Longmeadow neighborhood with new road connecting student and faculty homes

5L **Meadow**

5M **Campus Gate**

5N **Reinforce Forest**
Additional canopy and understory trees to reconnect canopy to Western forest

5. Jennings & Longmeadow

Projects Combined

A. Jennings Section

Minimize vehicular in front of Jennings, support pedestrian use by marking vehicular and bicycle/ pedestrian lanes

Acoustics and insulation upgrades throughout Jennings

Lower basement and renovate for additional music classrooms and rehearsal space

Excavate light well on north side

Expand existing terrace and retrofit to be accessible for all

Remove invasives from emergent forest and re-plant with young canopy and understory trees to foster multi-aged forest

B. Longmeadow Section

New Student Housing options along north meadow in context with Longmeadow House

Meadow to support a variety of wildflowers for pollinator insects, and provide rural character for residents

New live-work Faculty Housing along the north edge of campus in scale and context

Variety of canopy and understory trees to connect north edge to Jennings forest

6. Campus Ecosystems

Students, staff, and faculty agree, "the landscape is a huge part of why I chose Bennington and part of why I love it here so much." The many ecosystems of the College are not only essential habitat for flora and fauna, but inspire creativity, provide rich learning opportunities, and act as both social backdrop and place of peace. The campus can and should reflect the estate, agricultural, and institutional eras that shaped it—and look forward to a vibrant future. Although deferred maintenance and climate change might negatively impact campus landscapes, a holistic understanding of the campus and proactive approach towards supporting character, habitat, and water systems will provide opportunities for teaching and learning, enjoyment and recreation, essential habitat, and the "aha" moments that inspire College community members.

6. Campus Ecosystems

Regenerate Woodlands

Issues of aging woodlands, decreasing plant diversity, increasing invasives and deer browsing, and the pressures of a warming climate threaten this resource. Important ecologies are aging without a reliable way to renew. With 9 distinct ecological typologies, the campus is a precious habitat for plants and animals. With 440 acres overall, of which 128 are forested and 105 are fields, it is also critical infrastructure for climate change readiness, with the power to contribute to both flood management and water quality benefits, and to capture carbon and mitigate warming.

6A **Increase forest structure and age-class diversity**
Use forestry practices to convert even-aged forests to a more diverse, multi-layered, and multi-aged structure. Use crop tree release forestry practices and girdling to expedite growth of large trees and increase abundance of large diameter snags and eventually downed woody material

6B **Encourage a diversity of tree species that are suited to the site's current and future growing conditions**
Manage for a mix of at least 4-5 tree species in each canopy layer, including the overstory, midstory, and understory. Where tree species diversity is lacking, supplementally plant tree seedlings. Favor a mix of species adapted to alkaline soils or that can grow across a range of conditions. Favor a mix of climate adapted species

6C **Encourage and protect existing tree regeneration, including seedlings and saplings and smaller pole-sized midstory trees**
Where there is understory tree regeneration, experiment with using tree shelters to protect hardwood seedlings and younger saplings from deer browse. Where there is understory tree regeneration and it is being suppressed by invasives, cut back competing invasives every 1-3 years until seedling or young sapling reaches 6-10 ft in height; Where there is mixed-quality midstory tree regeneration, release pole and large sapling-sized oaks, sugar maple, cherry, pine, hemlock, and hickories from competition with ash, beech, red maple, hophornbeam, and any non-native trees. Where there is midstory tree regeneration and it is dominated by a single species, encourage and release other species from competition. Where there is tree regeneration and it is being suppressed by the overstory, variably thin overstory canopy and/or create small canopy gaps with girdling or felling trees

6D **Establish and protect new tree regeneration**
Where tree regeneration is absent or very limited, stimulate germination of new tree seedlings by creating small canopy gaps with girdling and/or felling trees. In existing or newly created canopy gaps, plant hardwood tree seedlings with tree shelters

6E **Minimize the impacts of invasives and deer on forest regeneration**
Prior to any forestry practice to encourage new tree regeneration, chemically or mechanically treat invasives in project area; Where there is understory tree regeneration and it is being suppressed by invasives, cut back competing invasives every 1-3 years until seedling or young sapling reaches 6-10 ft in height; Protect planted and naturally occurring hardwood seedlings with 3-4ft tall tree shelters; and Experiment with exclusion fencing to protect young hardwood seedlings and saplings

6F **Consider increasing connectivity between largest forest patches at north end of campus**
Reforest field to connect largest forest patches

- Athletic Field & Open Lawn
- Canopied Lawn
- Orchard & Productive
- Meadow
- Fragmented Meadow
- Wet Meadow
- Wetland
- Pond Edge
- Riparian
- Estate
- Hedgerow Room
- Emergent Woodland
- Established Woodland

6. Campus Ecosystems

Protect Sensitive Ecologies

Climate change is altering the synchrony of plant flowering and pollinator emergence. Having a diversity of pollinators on site maximizes the chance that plants have a suitable pollinator even if the plant flowering or insect emergence change.

6G **Use a varied, delayed, and rotational mowing regime to maintain diversity of field habitats for pollinators, birds, and other wildlife living in the fields. The mowing also keeps invasive shrubs from encroaching into the fields**
— Annually mow approximately 50% of the field habitat
— Each year, rotationally mow approximately 25% of the remaining field habitat, leaving 25% of the field habitat uncut each year
— Within the annually and rotationally mowed areas, leave small, un-mowed patches that shift in location over time. These un-mowed patches should be mowed during the next cycle
— Over the long-term, the varied mowing regimes should be rotated across the field habitats
— Where possible, mow lawns every two or three weeks, allowing for clover, dandelion and other flowers to emerge

6H **Resurvey and manage for fringed gentian**
In the summer of 2023, survey known location for fringed gentian, also survey nearby fields with similar microhabitat.

If the plant is relocated, contact the Native Plant Trust and/or Vermont Fish and Game for guidance on maintaining, managing, and encouraging expansion of the plant occurrence.

Athletic Field & Open Lawn	Pond Edge
Canopied Lawn	Riparian
Orchard & Productive	Estate
Meadow	Hedgerow Room
Fragmented Meadow	Emergent Woodland
Wet Meadow	Established Woodland
Wetland	

6. Campus Ecosystems

Collect, Clean & Infiltrate Water

Bennington College has a unique opportunity to utilize its campus landscape to assist in the implementation of integrated stormwater management strategies that will help to mitigate the impact of climate change. Regionally, the impacts of climate change are anticipated to include: increased temperatures, more frequent and extreme precipitation thus flooding events which can be exacerbated if amounts of impervious surface aren't reduced.

Bennington College should implement low-impact development (LID) techniques in future landscape-oriented projects, to improve the resilience of the campus and minimize some of the potential impacts of climate change. These LID techniques work to manage stormwater using strategies such as preserving vegetation on site, minimizing impervious cover, installing rain gardens, and regrading areas on campus. At a minimum, Bennington College should implement rainwater management strategies to ensure that the landscape is capable of managing 80th percentile rainfall events in order to reduce the anticipated effects of climate change on campus.

In addition, Bennington College should consider the Three-Acre Rule for stormwater that will impact landowners with more than three acres of land in the Lake Champlain watershed basin. While Bennington College is not currently part of the Lake Champlain watershed basin, Otter Creek has noted that is anticipated to change in or around 2025. The Three-Acre Rule requires landowners to treat as much impervious water on site as possible, with a minimum requirement of treating 50% of the water.

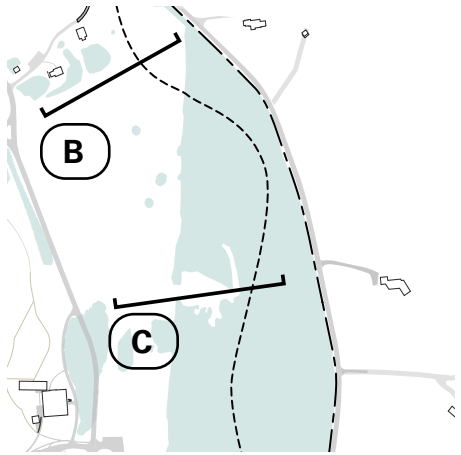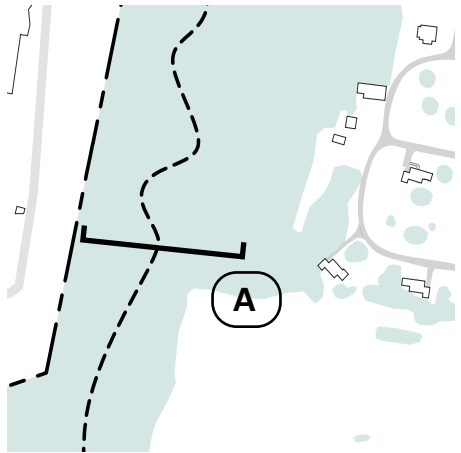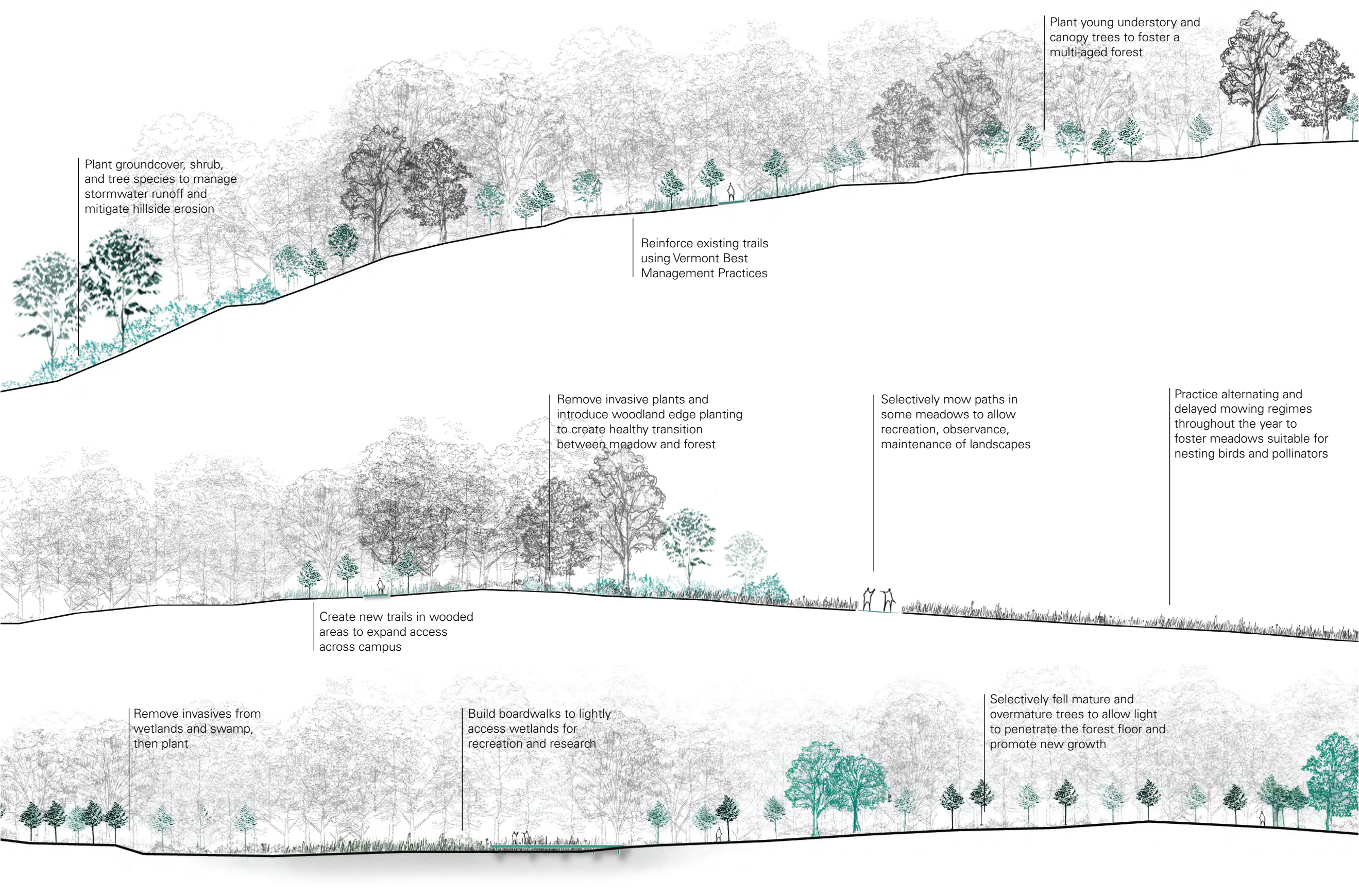|	
6I	**Pursue and implement strategies from sustainable design/wellness benchmarking systems**
6J	**Use methods of diversion, direction, and dispersal, to manage and clean stormwater runoff from buildings and paved areas** Architectural examples include green roofs, rainwater collection, and rain gardens. Landscape examples include swales, planted buffers and wetlands, settlement basins, and protected outlets
6K	**Consult the Bennington College Stormwater Infrastructure Mapping Project (October 2017) for** — a complete map of stormwater infrastructure on campus — identification of outlets off campus, to nearby rivers, and into greater watershed — suggested strategies to create a Spill Containment, Control, and Countermeasures plan to meet regulatory requirements
6L	**The BC SIM has already identified the potential for an infiltration basin in subwatershed 3, to treat runoff before it enters the receiving Walloomsac River**

Athletic Field & Open Lawn
Canopied Lawn
Orchard & Productive
Meadow
Fragmented Meadow
Wet Meadow
Wetland

Pond Edge
Riparian
Estate
Hedgerow Room
Emergent Woodland
Established Woodland

6. Campus Ecosystems

Projects Combined

Plant young understory and canopy trees to foster a multi-aged forest

Plant groundcover, shrub, and tree species to manage stormwater runoff and mitigate hillside erosion

Reinforce existing trails using Vermont Best Management Practices

Remove invasive plants and introduce woodland edge planting to create healthy transition between meadow and forest

Selectively mow paths in some meadows to allow recreation, observance, maintenance of landscapes

Practice alternating and delayed mowing regimes throughout the year to foster meadows suitable for nesting birds and pollinators

Create new trails in wooded areas to expand access across campus

Remove invasives from wetlands and swamp, then plant

Build boardwalks to lightly access wetlands for recreation and research

Selectively fell mature and overmature trees to allow light to penetrate the forest floor and promote new growth

A

B

C

7. Sustainability Upgrades

The Bennington campus is like a small town, comprised of buildings and infrastructure that have been developed progressively since the late 19th century, beginning with the estate and farm buildings that occupied the site prior to Bennington's founding. Today, the collection of over 60 buildings has a wide array of systems and deferred maintenance needs. Based on an analysis of the energy consumption by building and renovations and upgrades that have been completed to date, the appendix lists building by building recommendations that should be considered for future projects.

Larger system initiatives including waste reduction measures such as additional recycling and composting systems and transportation upgrades from reducing car trips to electrifying the campus fleet make up the first category of initiatives for future projects. Renewable energy opportunities such as solar photovoltaics were frequently noted on campus and could work well over parking areas.

The second and third categories relate to exterior and interior improvements of individual buildings. Many roofing projects have been completed across the inventory but the need for heating and cooling systems upgrades and envelope improvements still remains. Interior environments from the materials to fixtures and appliances are key to address with ongoing upgrades.

7. Sustainability Upgrades

Systems Initiatives

7A **Waste Reduction**

Several of the comments received during the engagement process were related to waste reduction, recycling, and composting on campus. Currently, Bennington College has recycling infrastructure in buildings throughout campus, however, the college should ensure that easily accessible recycling areas are included in all housing areas. In addition, Bennington College should establish a composting program that primarily focuses on areas with significant food waste, such as the Commons or other dining areas. As part of introducing a composting program and enhancing recycling infrastructure, the college should provide instructional signage on what types of materials can be recycled and composted to ensure that these programs are effective.

Finally, students have recommended incorporating materials reuse programs for things like art supplies in VAPA to avoid unnecessarily wasting materials that other students can use. Bennington College should consider implementing donation and reuse programs in academic building throughout campus.

7B **Transportation**

As a result of the centrally located parking spaces on campus, many students tend to drive between academic buildings and their housing despite most of the campus being accessible by walking and biking. In addition, due to a lack of available transportation to downtown Bennington, driving is typically the most realistic option. With driving being a primary form of transportation amongst students, there is potential as part of the Framework project to reduce emissions associated with transportation.

Relocating parking areas was discussed during the initial analysis phase, however, there are several other strategies that can help to reduce transportation emissions on campus. Bennington College should consider installing bicycle racks throughout campus to ensure that students are easily able to bike to and from class. In addition, carpool and shuttle programs could be implemented to more efficiently transport people to and from campus and downtown Bennington. Finally, electric charging for electric vehicles, bikes, and scooters should be installed throughout campus as electric bikes and scooters are popular on campus.

In addition to students and faculty driving on campus often, Bennington College's vehicle fleet is currently made up of gas-powered vehicles. The college should consider replacement of the campus fleet vehicles with more efficient hybrid or electric vehicles.
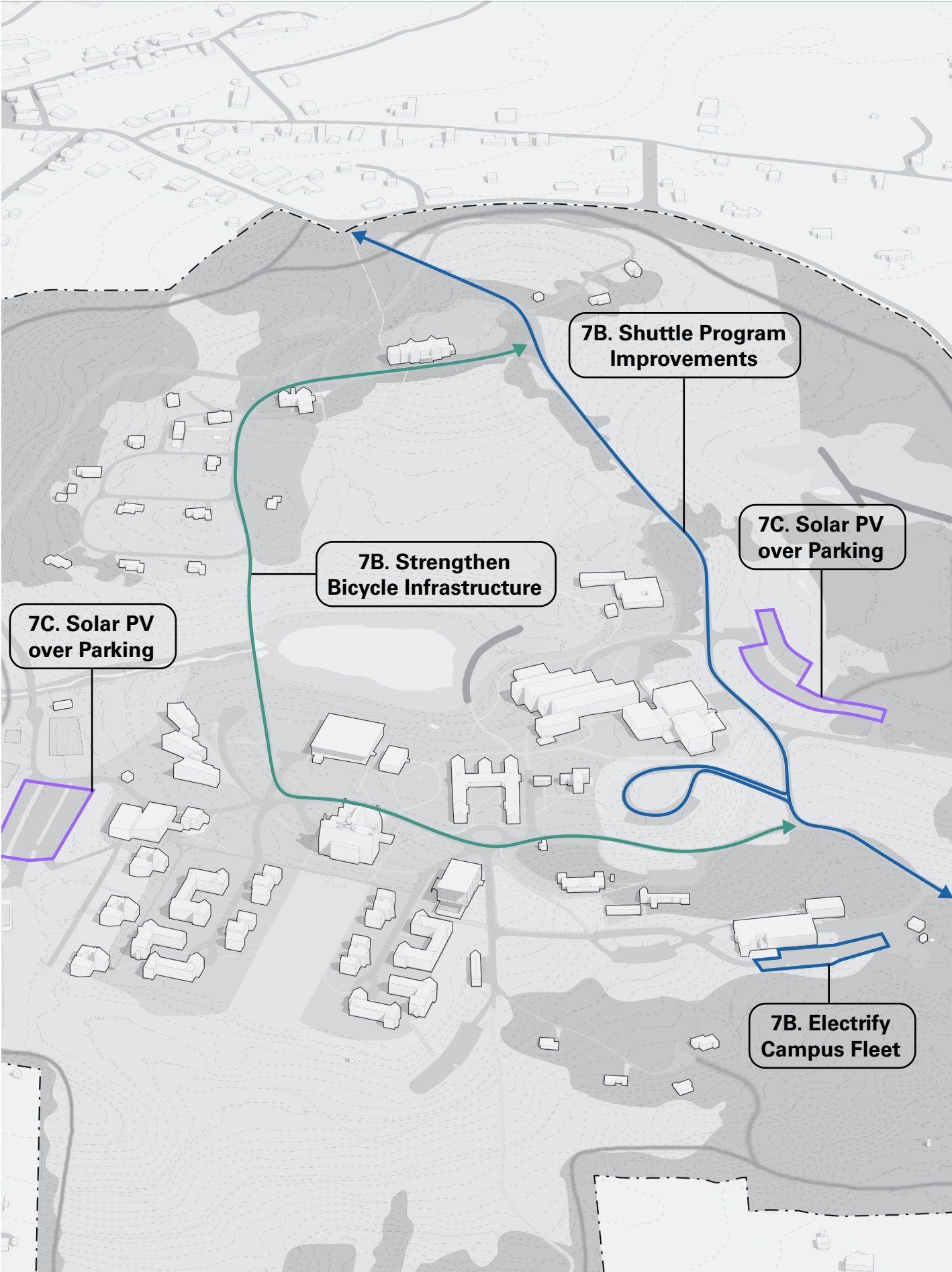
7C **Renewable Energy**

Based on meter data from the eGauge database, the campus as a whole uses approximately 3.4 GWh of energy per year. Currently, Bennington College is engaged in a power purchase agreement for 1.5 MW of renewable energy. Additional investment into renewable energy can contribute significantly towards the college's goal of achieving carbon neutrality by 2030.

Given the large amounts of space on campus, there is potential for Bennington College to install solar PV as a way of offsetting current energy consumption. Based on the analysis of individual buildings, there are several large buildings that will soon require roof replacements and could be good candidates for rooftop solar. In addition, installation of solar PV above parking areas should be considered as it is an efficient use of space and can help to reduce the heat island effect on campus. As noted in the initial analysis section of this chapter, one of Bennington's long-term sustainability goals is to further implement flexible load management and ultimately be separate from the grid. Use of renewables and battery storage technology can help to reduce reliance on the grid and help to achieve this goal.

Another option is to purchase off-site renewable energy to offset some or all of the campus' energy consumption. Bennington College should consider the potential for engaging in other power purchase agreements or purchasing RECs and off-site renewable energy to further offset the energy consumption of the campus.

7B. Shuttle Program Improvements

7C. Solar PV over Parking

7B. Strengthen Bicycle Infrastructure

7C. Solar PV over Parking

7B. Electrify Campus Fleet

7. Sustainability Upgrades

Building Performance Initiatives

7D Envelope Upgrades

While conducting assessments of each building, it was determined that in general the building envelopes on campus need to be upgraded. Many buildings have inefficient single-pane windows with aluminum frames and they are lacking insulation. As a result, these buildings are often not thermally comfortable for occupants and are very inefficient from an energy use perspective. Upgrading insulation and windows in these buildings, in addition to additional air sealing around the envelope, can have a significant impact on the energy efficiency of the buildings and occupant comfort, especially during the summer and winter months.

Depending on the building, the following strategies should be considered for each building on campus that wasn't constructed or hasn't had a major envelope renovation in recent year.

— Replace single-pane windows with double- or triple-pane windows
— Replace aluminum window frames with a different material that has less thermal conductivity
— Add exterior wall insulation to areas where insulation is lacking
— Replace roofs and roofing insulation for buildings with old roofs
— Air seal cracks and openings in the envelope to minimize outside drafts from entering the building

7E Efficient HVAC

Currently, many of the buildings on campus have heat supplied by the steam lines from the biomass plant, however, some buildings still use oil boilers for heating, especially housing buildings. In order to reduce reliance on oil boilers for heating, Bennington College should consider connecting these buildings to the campus steam lines where possible.

Several of these buildings are located in the north part of the campus which is relatively far from the biomass plant and steam line infrastructure. As a result, these buildings would be good candidates for ground-source or cold-climate heat pumps to provide heating and cooling. Ground-source and cold-climate heat pumps are far more efficient than oil boilers and would contribute towards Bennington College's sustainability goals of reaching carbon neutrality by reducing oil consumption.

In addition, many buildings on campus don't currently have cooling installed as it is largely unnecessary given the climate. However, with the impending threat of climate change, Bennington College should begin to consider active and passive cooling strategies to ensure that building occupants are comfortable year-round. Cooling systems could be installed in these buildings, however, strategies like using natural ventilation through operable windows and installing ceiling fans or other alternative cooling systems are worth considering first.

Finally, Bennington College should conduct a refrigerant inventory on campus to determine if and where the environmentally harmful CFC based refrigerants are still being used. If CFC refrigerants are being used on campus, the college should develop a plan to phase them out. For any equipment requiring refrigerant, Bennington College should ensure that refrigerants with low global warming potentials (GWP) are specified.

7E. Steam Line Replacement Necessary

Infrastructure/Energy

——	Steam	- - -	Steam - Potential
——	Geothermal/Electric	- - -	Geothermal/Electric - Potential

Building Construction Eras

▇	2001–2022	▇	1904–1945
▇	1946–2000	▇	1769–1903

7. Sustainability Upgrades

Healthier Environments

7F Materials

Specifying healthy and sustainable materials can have a major impact on both indoor air quality and reducing embodied carbon associated with the extraction, manufacturing, and transportation of materials. For future renovation and new construction projects, Bennington College should thoroughly vet materials based on their embodied carbon. Materials with EPDs indicating the embodied carbon impact, materials with recycled content, FSC certified wood, and bio-based materials should be specified to reduce embodied carbon and establish a more sustainable built environment on campus. Bennington College should consider mass timber from vendors implementing sustainable forestry strategies as a primary option for future construction projects to reduce the college's carbon footprint.

Healthy materials selection is also critical to enhancing indoor air quality and occupant comfort. Certain products emit volatile organic compounds, which negatively impact indoor air quality and human health. As a result, future renovation and construction projects on campus should review wet applied products to ensure they comply with the VOC content limits outlined by the South Coast Air Quality Management District (SCAQMD) Rule 1113 and Rule 1168. In addition, products with VOC emissions evaluations such as Greenguard Gold certificates should be specified to further minimize negative impacts to indoor air quality.

7G Efficient Fixtures and Appliances

Another strategy for reducing energy consumption on campus is to upgrade fixtures and appliances to ensure that they are efficient as possible. Areas such as kitchens and dining halls that are relatively large and have a lot of equipment and appliances should be examined to determine where more efficient equipment can be installed. ENERGY STAR is a program that certifies all types of appliances and equipment for having a low energy demand. To reduce the overall energy consumption of high traffic and energy intensive areas on campus, Bennington College should specify ENERGY STAR equipment where possible.

In addition, Bennington College should ensure that all light fixtures on campus are LEDs to maximize lighting efficiency and reduce total energy demand. To further contribute towards the lighting efficiency of the campus, daylight and occupancy sensors can be installed to turn off and on lights depending on the availability of useful daylight and whether people are using the space.

7H Water Consumption and Stormwater Management

In past Bennington College building improvement and renovation projects, the college has replaced old, inefficient plumbing fixtures with low-flow plumbing fixtures to save water. The college should continue to make these upgrades in buildings to ensure that water isn't being unnecessarily wasted. Recommended flush/flow rates for low-flow fixtures to maximize indoor water use reduction include:

— Toilet: 1.1 to 1.28 gpf
— Urinal: 0.125 gpf
— Lavatory sink: 0.35 gpm
— Showerhead: 1.5 gpm
— Kitchen Sink: 1.5 gpm

Bennington College should require that all newly installed plumbing fixtures are EPA WaterSense labeled to ensure that low-flow fixtures are specified and maximize water efficiency on campus.

In addition, as noted in the Landscape chapter of this report, Bennington College should consider implementation of low-impact development (LID) techniques on future landscape-oriented projects to enhanced the stormwater management capabilities of the campus.

Building Interior Upgrades

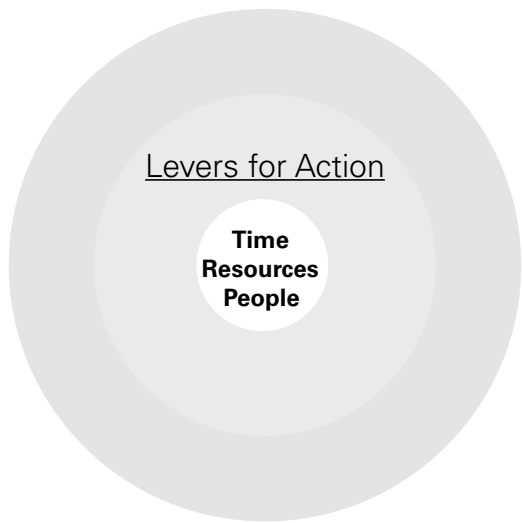━━━━ Fixtures, Appliances, and Water Management

iv. Moving Forward

The most important part of the Adaptive Framework Plan is the process of enacting projects that are in alignment with changing needs. This section outlines a decision making framework based on the resources and values discussed with the Board of Trustees and Working Group throughout this process. Underlying the projects defined in the previous section are a range of scales, costs, and timelines which can relate to the projected growth in enrollment over the next decade. The Project Matrix is a key tool which further breaks down metrics per project and can be filtered and actively updated. Ultimately this framework is a planning tool for when a need is defined that there is a way to select and potentially combine or synthesize projects to achieve well rounded values and enable the most effective potential.

Decision Making Framework

Levers for Action

**Time
Resources
People**

How do we create
opportunities for innovation
and emerging directions?

Innovation

Finance

How do we understand
costs holistically?

**Time
Resources
People**

How do we model for
inclusivity, accessibility,
and health?

Equity

Culture & Place

How do we support a
dynamic community
over time?

Resiliency

In the face of climate change, how
do we foster resilient ecosystems?

Understanding the Fundamental Levers

The fundamental levers for action in executing any project or initiative are time, resources, and people. The time lever relates to when something is needed, a certain number of beds or classroom type, and the amount of time needed to complete. Advance planning is key to allowing space for the need to be identified, options to be developed, and the design and construction process.

Resources relate to both the financial and physical. The funding needs to be secured for each project which can range from a visible building to invisible infrastructure improvement. This needs to be initiated early in the planning process working hand in hand with definition

of the size, characteristics, and location. Physical resources are the carbon impacts of materials, construction, and operation. Many of the projects envisioned are renovations, conversions, or adaptations which are the greenest in terms of embodied carbon but still need analysis to optimize what is used and the long-term impacts.

The people lever is broad, from the decision-makers to the designers and builders and ultimate users. The fullest spectrum should be involved in projects to align needs with the most optimal solution. The creativity and innovation lies in a open dialogue between each person in this process.
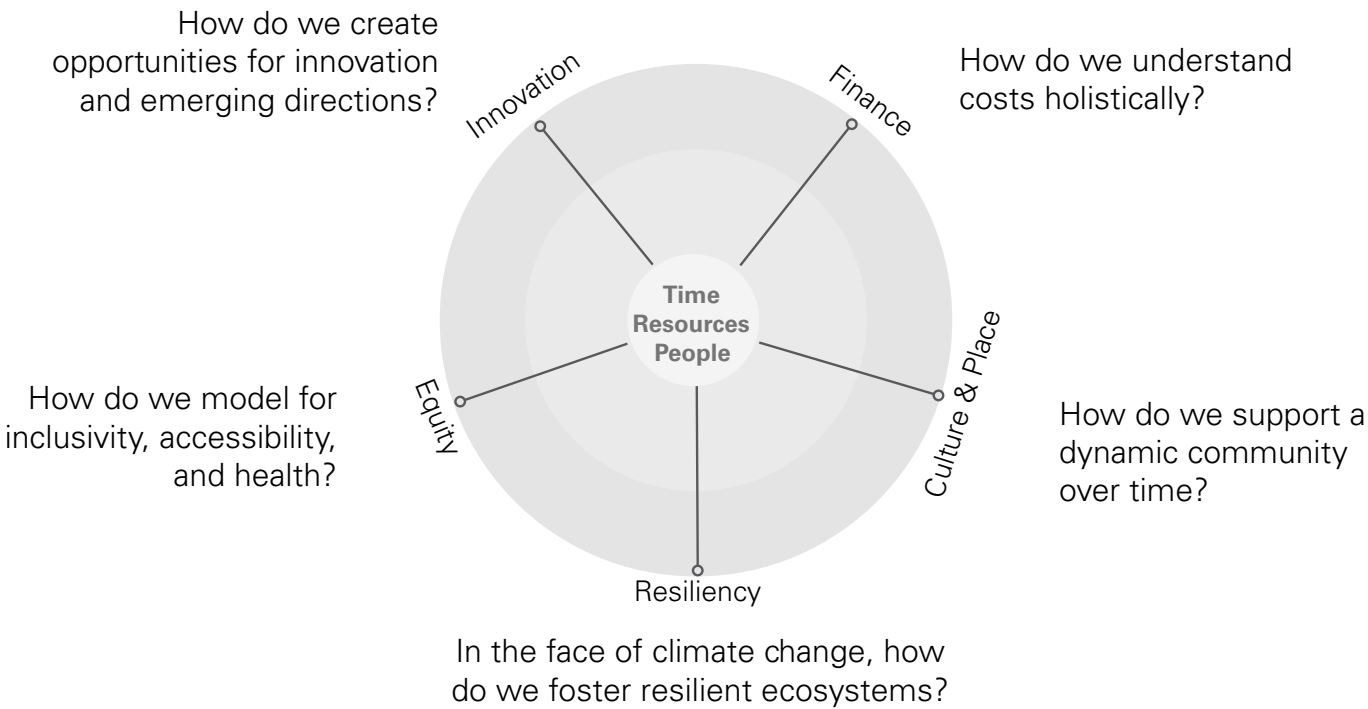
Creating a Participatory Planning Process

The values noted above are the result of discussion and refinement with the Board of Trustees and Working Group. The overarching message was to prioritize the community and to define projects which are well-rounded. The five points can be used as an evaluation tool at each point in the process from project definition to final completion. This set of criteria will guide future conversations to ensure Bennington's planning is in line with its values. How Bennington "selects" from this menu over the next several years will depend on institutional needs and priorities, some of which are predictable, while others will be emergent.

Key strategies around building the capacity to enable change:

— Build interdepartmental commitment to define and stand behind designs
— Expand agency, build more partnerships
— Understand and balance two kinds of investment, capital vs. maintenance dollars
— Commit to an inclusive process as part of the implementation
— Elevate the standard of care, Bennington as continued model
— Commit to stewardship of the land and creation of more stewards

Project Scales

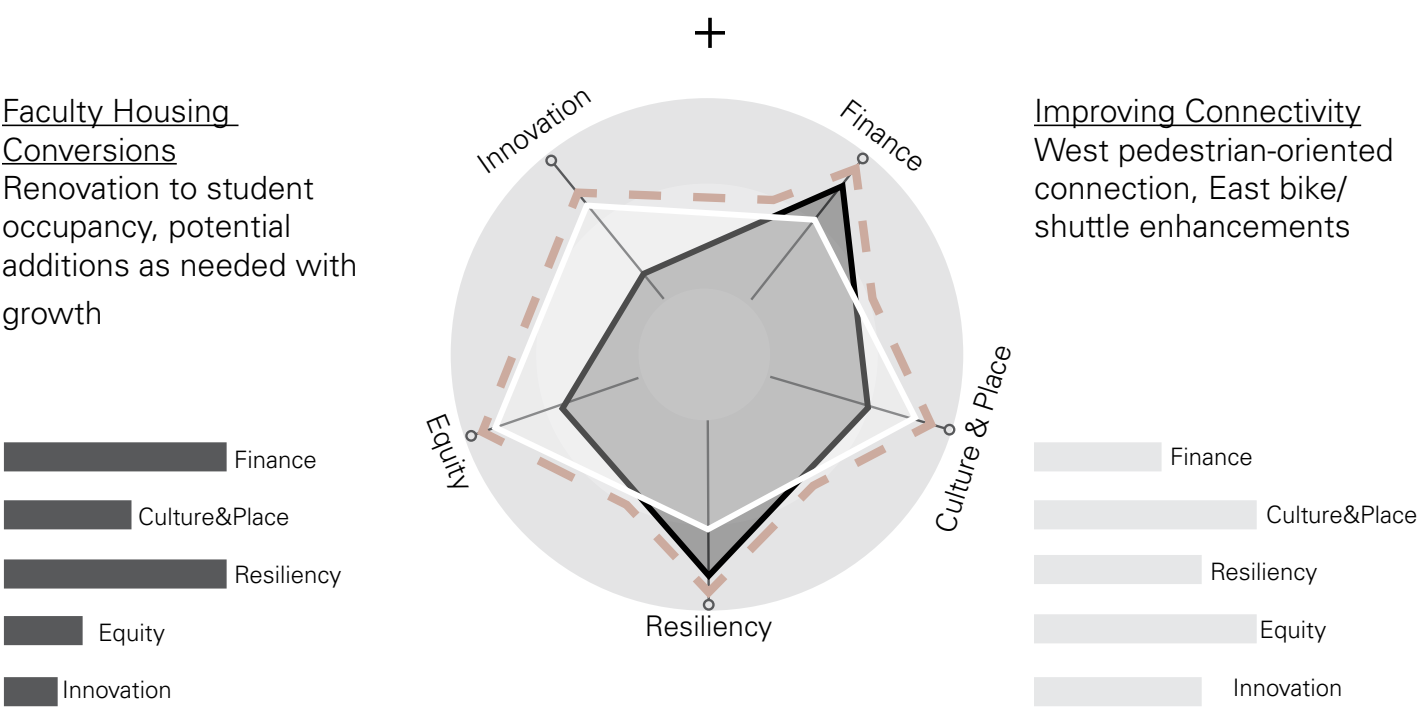|	INTERVENTIONS	BRIDGING PROJECTS	VISION/STRATEGIC PROJECTS
Project Scale	**XS** **S**	**M**	**L** **XL**
	Tactical projects, quick and low cost to implement	Necessary to support growth of college to 870 students, across all categories	Requires lead time for fundraising, developing plans and approvals, long-term needs
Timeline	Anytime	Years 2-10	Years 5-10
Execution Timeframe	< 6 mo.	6 mo.- 2 yrs	2+ yrs
Budget	$0-$50K	$50K-$5M	$5M+

Small Projects or Interventions represent low cost, relatively simple projects that can be executed in a very short timeframe but create a meaningful impact by augmenting or shifting the potential uses of existing spaces. An example could include the introduction of new or different furnishings in an existing space to accommodate different uses.

Bridging Projects represent mid-scale projects that invest more significant resources (time and money) into existing buildings to expand their capacities in the near term, while building a "runway" towards the future. These projects can be thought of as localized renovations or small-scale additions that require design, planning and permitting, but not on the scale of wholesale renovations or new buildings.

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Strategic Combinations

Faculty Housing Conversions
Renovation to student occupancy, potential additions as needed with growth

- Finance
- Culture&Place
- Resiliency
- Equity
- Innovation

Improving Connectivity
West pedestrian-oriented connection, East bike/ shuttle enhancements

- Finance
- Culture&Place
- Resiliency
- Equity
- Innovation

As discussed in previous sections of this report, Bennington College is currently at the threshold of its capacity, and will need to make near-term changes to its campus facilities to accommodate its growing enrollment. However, such changes must be enacted with minimal resources for the foreseeable future in order to ensure that potential increases in tuition revenue are not offset (or even overwhelmed) by capital expenditures. This is where the "bridging" projects come in. Such projects allow for incremental enrollment growth and programmatic change through targeted and strategic investments in existing buildings, while building a "runway" towards the larger, more visionary projects that may be achievable with greater resources in the future.

Bridging projects have the potential to move the college towards its long-term goals without entailing significant financial risk, and have the additional benefit of investing to expand the capacity of existing facilities, which themselves already require investments for maintenance and modernization. Part of the process should be the review of projects to find key combinations between projects which can achieve greater than the sum of its parts across the array of metrics.
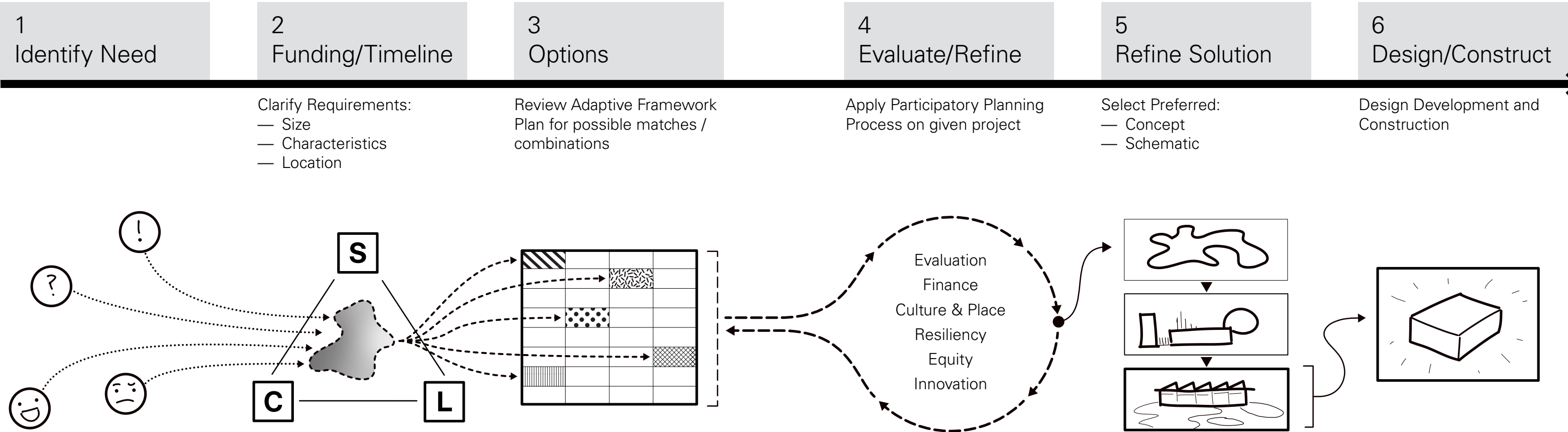
Project Matrix

One of the primary tools informing the framework together is the Project Matrix. A full version of this matrix is included in a later chapter as a summation of all of the ideas gathered and synthesized into projects small and large. This is more than just a spreadsheet - it is meant to be a active tool, a living document that can be acted on and adjusted over time as ideas evolve and new possibilities are identified. Project ideas within the matrix can be sorted based on parameters such as size, rough cost range, program potentials, and other factors in order to provide a quick glimpse into possible solutions for emerging space needs.

The spreadsheet format enables ease of adding new projects as they emerge or adjusting as needs change. In the evaluation of projects, the matrix can serve to facilitate the discovery of "both-and" solutions, combination between projects, finding productive overlaps and synergies for cost-effective projects that addressing of needs at different scales and for various constituents, with an eye to building on the potential of existing buildings and infrastructure, as well as addressing existing building needs.

ID	Building / Space	Description	Detail	Goal 1	Goal 2	Project Type	Framework Category	Area (SF)	Cost Range	Program Opportunities	Constraints/Considerations
1C	Barn	Barn West Wing Rebuild	Rebuild the entire western wing of the barn and add 2nd floor (currently attic), similar to 2022 SE Wing renovation	Support growth	Adaptation	Exg Footprint Reconstruction	Vision/Strategic	9000-12000	$5M-$10M	Administrative, Teaching, Storage	Would require complete rebuilding of the wing, including foundation (could include occupiable basement space as well). Would need to house about 5000 SF of admin office space in temp quarters for duration of renovation.
2B	Student Center	Westward expansion of Student Center Pre-engineered metal building	Extend existing building by twice its length	Support growth	Adaptation	Addition/Expansion	Vision/Strategic	5000	$1M-$5M	Student Activities/Fitness/Rec	Consider relocating Rec Barn fitness center to new space (and repurpose Rec Barn for other uses). Would need to add restroom/locker room facilities in addition to open space. Could include mezzanine at upper level of building for more square footage
4C	VAPA- VA	Levels 1 & 2: Relocate and Consolidate Digital Fabrication equipment to new "making space" at Level 1, exterior storage building at VAPA Circle	This would include relocating existing laser cutters (x2), 3D printers (X4), CNC mill (x1) and other small digi-fab equipment into a standalone building created at the existing "storage" building adjacent to VAPA. Would include small expansion of this building to create daylight/access. Would free up space in VAPA for both footprint and infrastructure of these machines, and provide general access to equipment for all programs.	Support growth	Adaptation	Addition/Expansion	Vision/Strategic	1500 (est)	$50K-$250K	Visual Arts	Actual area impacts difficult to assess without detailed study. Would require new storage area to accommodate materials currently stored in existing storage building--perhaps implement with storage space suggestion below?
4E	VAPA- All	New Dedicated Storage Building	New building on footprint of brick Patio outside "Green Room" (east of Scene Shop) with tie-ins at Levels 1 and 2. Free up all the storage space inside VAPA and repurpose as program space	Support growth	Adaptation	Addition/Expansion	Vision/Strategic	1400-2800		Consolidated storage space for VA and PA	Would allow easy access from grade at exterior, access to VAPA at "hinge" point between VA and PA sections.
4F	VAPA- VA	New Dedicated Studio/Fabrication "Barn"	Build a low-cost single-floor high-bay building (possibly with interior mezzanine") for student studio space, crit space and fabrication lab. Would be located on an expanded footprint of the existing storage building at VAPA circle, designed as a "banked barn" with partial embedment into hill to east. 5000-7500 SF. Relocate ALL student studios into this building, adjacent to fabrication space for digital fab equipment.	Support growth	Adaptation	Addition/Expansion	Vision/Strategic	5000-7500	$50K-$250K	Consolidated studio space, centralized fabrication center for digital fab equipment (and possibly other fabrication as well TBD).	Requires new construction, but relatively low-cost with primarily open space, concrete slab on grade, and pre-engineered or tilt-up construction techniques. New building would need ventilation for specialized equipment and general air quality, but much easier to do in an open, single story new building than in existing VAPA bldg. Frees up more square footage than it uses due to inefficiencies of current studio spaces in existing buildings. Frees up multiple satellite studio venues (Swan Garage, Old Carpenter Shop) as well as significant footprint in VAPA. Creates a locus of student independent workspace, crit space, and fabrication. If letterpress printing area is included as well, can free up EAC2 building for other programs as well.
5B	Jennings Music Building	Full Basement Level Buidout	Renovate as much of basement as possible to create music studios, practice rooms, and other program that does not require daylight but prefers solid construction, acoustic isolation, etc.	Support growth	Adaptation	Exg Footprint Interior Only	Vision/Strategic	5000	$1M-$5M	Music Practice, Studio, Teaching	Significant work to abate hazardous materials, waterproof and insulate envelope, and add infrastructure. But many music and media-related programs could utilize this space, and would allow for re-thinking of upper levels of Jennings. May

The Framework as Planning Tool

1 Identify Need	2 Funding/Timeline	3 Options	4 Evaluate/Refine	5 Refine Solution	6 Design/Construct

| | Clarify Requirements:
— Size
— Characteristics
— Location | Review Adaptive Framework Plan for possible matches / combinations | Apply Participatory Planning Process on given project | Select Preferred:
— Concept
— Schematic | Design Development and Construction |

S

C   L

Evaluation
Finance
Culture & Place
Resiliency
Equity
Innovation

The process outlined above is one that works for any scale or type of physical improvement on campus. Clear execution of each of these steps is critical to making sure the final product aligns with the need and is delivered on time.

The need should be defined by a variety of stakeholders and translated with the College leadership through clarification of the main requirements such as size, characteristics, and location. The Adaptive Framework Plan should be used as a tool as part of this process to review the larger realm of possibilities and find possible matches or combinations which could productively support the need and create a larger positive impact. This should be evaluated through the Participatory Planning Tool noted above for a well-rounded project which excels in all five values. The design team should be part of refinement of the solution from multiple Concept Options to Schematic Design review. Once a preferred project is selected the Design Development and Construction would be completed under continued engagement with key leadership and users.

With the incredible depth of analysis, engagement, and wide array of framework ideas that have emerged, this adaptive framework plan is not meant to be a report on the shelf, but an active tool in the future of Bennington College.