

An aerial photograph of the Northern Arizona University campus. In the foreground, there are several large, modern university buildings with brick and concrete facades. A wide, paved pedestrian walkway runs through the center of the campus, with many people walking. To the right, there's a large, multi-story brick building with many windows. In the background, a dense forest of trees covers the hillsides, and a range of rugged mountains with patches of snow is visible under a cloudy sky.

NORTHERN ARIZONA UNIVERSITY

COMPREHENSIVE SUSTAINABLE SMART CAMPUS MASTER PLAN

NAU

OCTOBER 2023

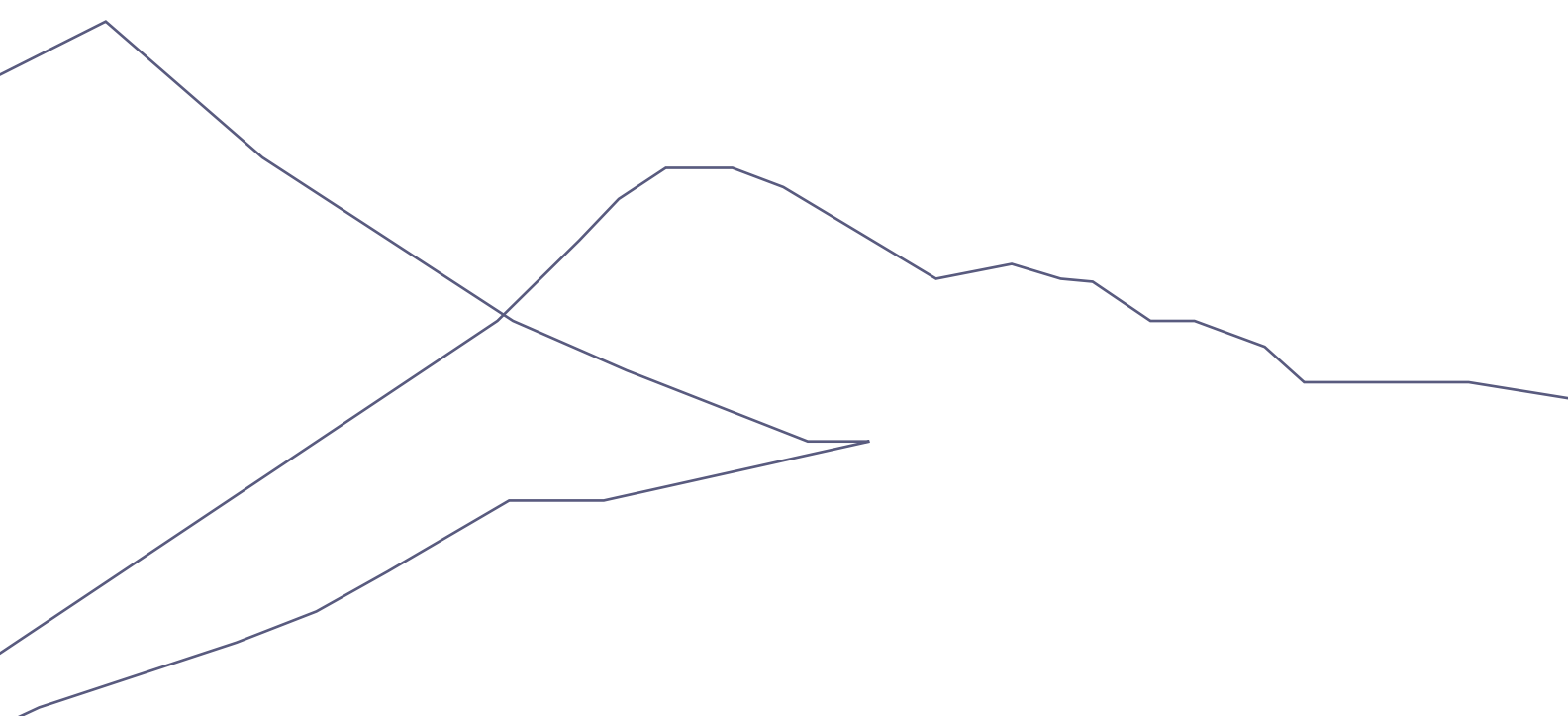


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Northern Arizona University

**COMPREHENSIVE
SUSTAINABLE SMART
CAMPUS MASTER PLAN**



About Northern Arizona University

With roots as a teachers college, NAU is committed to building a better tomorrow through education. Over 28,000 students attend the university's eight academic colleges whose programs of study enrich lives and create opportunities in Arizona and beyond.

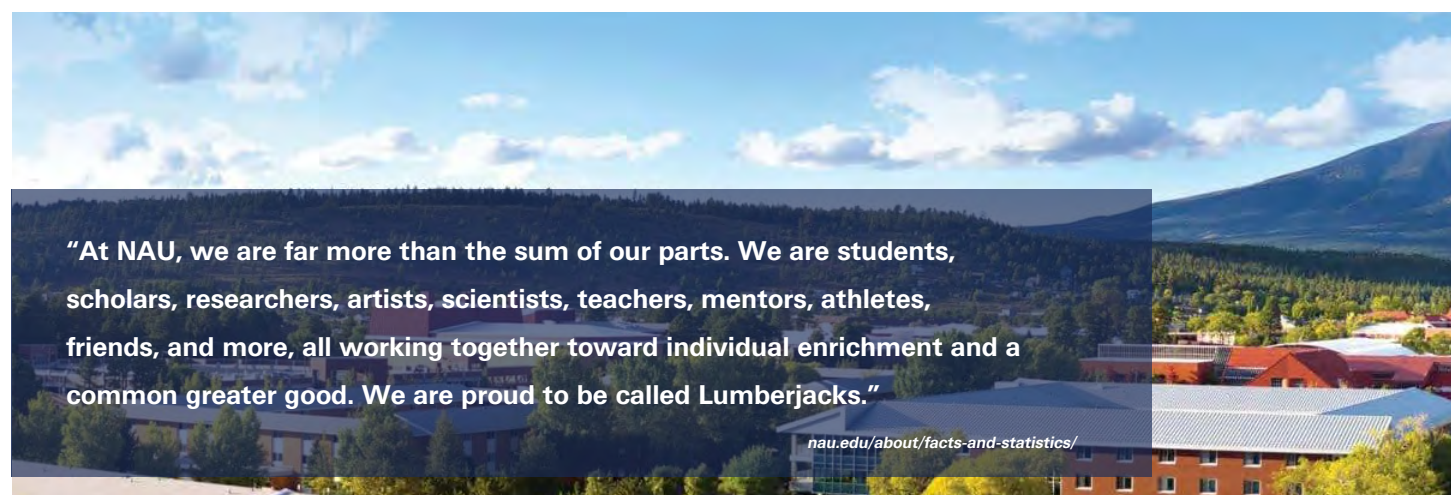
The Mountain Campus in Flagstaff has historically been the focal point of the university and its flagship campus. The Flagstaff campus is over 600 acres with over 6.8 million square feet in more than 100 buildings. NAU also has over twenty locations across the State of Arizona where over a third of Northern Arizona University's students are enrolled. The university continues to expand statewide outreach programs and distance learning, while the Flagstaff campus enrollment is assumed to remain at current levels.

The Northern Arizona University Mountain Campus is located in an ecologically diverse and sensitive area. Defined by forests, mountains, and grassy plains, the campus sits adjacent to downtown Flagstaff. It is surrounded by the Coconino National Forest, with other National Parks such as Walnut Canyon, Sunset Crater, Wupatki, and Grand Canyon all located within a short drive. Outdoor recreation is extremely popular among students, with many looking for open spaces on campus to draw inspiration from the adjacent diverse ecosystems. Many students chose to attend NAU for the outdoor element, climate, and landscape that Flagstaff provides.

Indigenous Nations such as the Yavapai, Hopi, Navajo, and Apache, and their ancestors have lived in the surrounding area for thousands of years. Flagstaff grew quickly in the late 1800s thanks to its abundant natural resources and strong ranching and railroad industries. This unique blend of people and history contributes to the cultural landscape today.

LAND ACKNOWLEDGMENT

Northern Arizona University sits at the base of the San Francisco Peaks, on homelands sacred to Native Americans throughout the region. **We honor their past, present, and future generations, who have lived here for millennia and will forever call this place home.**



"At NAU, we are far more than the sum of our parts. We are students, scholars, researchers, artists, scientists, teachers, mentors, athletes, friends, and more, all working together toward individual enrichment and a common greater good. We are proud to be called Lumberjacks."

nau.edu/about/facts-and-statistics/

NAU BY THE NUMBERS:



1899

FOUNDED IN
FLAGSTAFF, AZ



28,000+

STUDENTS - FLAGSTAFF,
STATEWIDE, AND ONLINE



4,600+

FACULTY AND
STAFF



40%+

FIRST GENERATION
COLLEGE STUDENTS



20+

NAU
LOCATIONS

Information provided from NAU facts and statistics



Campus Today (2023)

- EXISTING BUILDINGS
- EXISTING PARKING
- CAMPUS BOUNDARY



Smart Campus Vision Plan

- NEW CONSTRUCTION
- RENOVATION
- REPLACEMENT
- BUILDING TO REMAIN

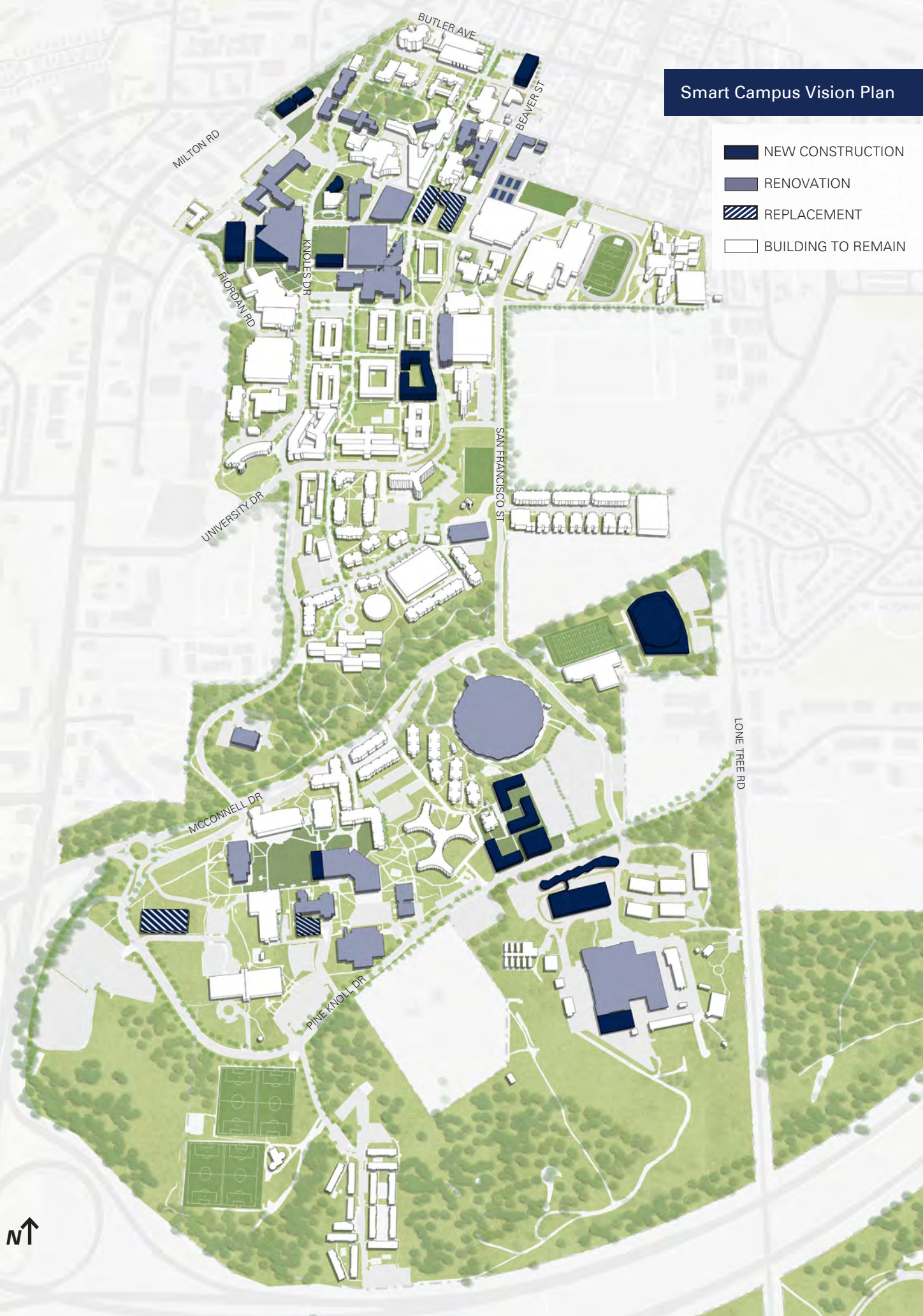
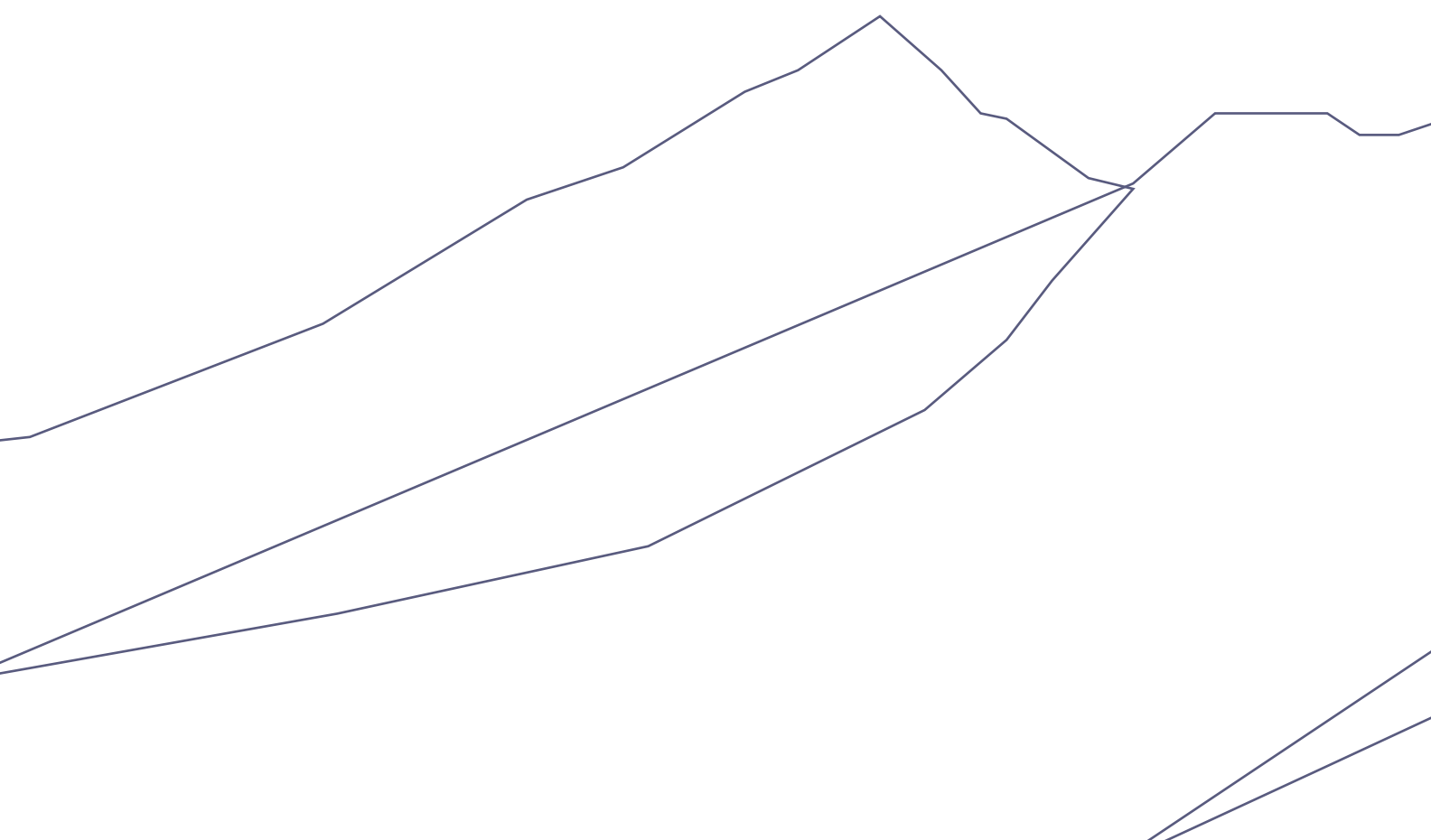


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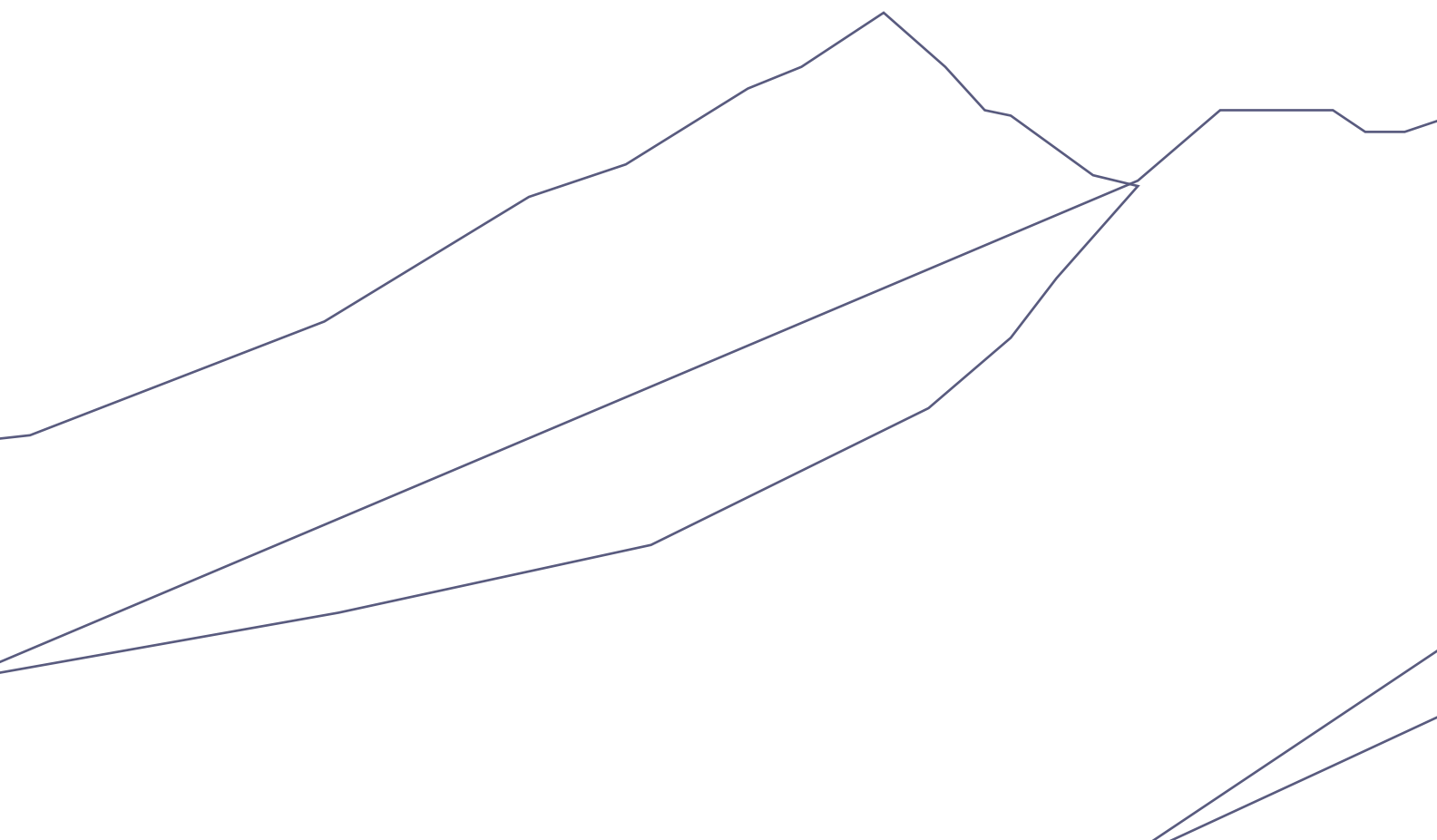
CHAPTERS

- 01** Project Introduction
- 02** Implementation Plan
- 03** Buildings & Facilities
- 04** Student Life
- 05** Landscape & Open Space
- 06** Multimodal Circulation
- 07** Indigenous Planning
- 08** Sustainability & Smart Campus

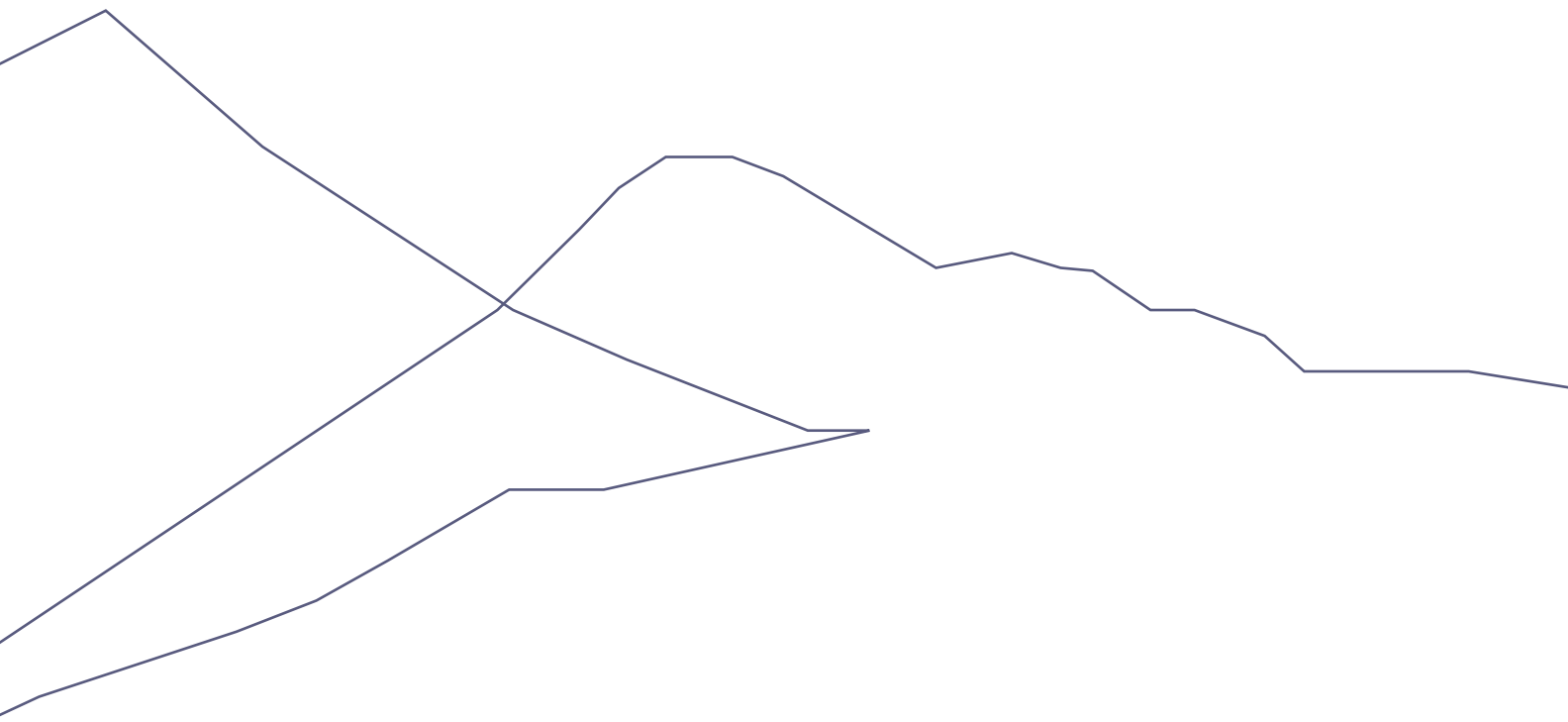
ADDITIONAL INFORMATION

- A1** Space & Program Needs
- A2** Implementation Plan
- A3** Buildings & Facilities
- A4** Student Life
- A5** Landscape & Open Space
- A6** Multimodal Circulation
- A7** Indigenous Planning
- A8** Sustainability & Smart Campus

01



Project Introduction



Message from Leadership



I am pleased to invite you to explore Northern Arizona University's Sustainable Smart Campus Master Plan, a visionary roadmap for development that sets forth the pathway for change that will transform our campus over the next 10 years. This comprehensive plan sets forth guiding principles for the development of facilities and infrastructure on our campus and represents a collective effort and our shared vision for a campus that not only fosters academic excellence but also nurtures an inclusive and sustainable community.

This Master Plan follows the adoption of *NAU 2025 – Elevating Excellence*, NAU's updated Strategic Plan, aligning our articulated institutional mission and vision with how we plan, develop, and utilize our physical and technological infrastructure and campus real estate. The higher education landscape has evolved significantly in the past decade since the 2010 Master Plan. Capitalizing on this time of change, the Master Plan comes at a pivotal moment in NAU's history as we, like so many others in the higher education community, face formational challenges and opportunities on many fronts.

A hallmark of this Master Plan is the continuation of our long-standing dedication to fostering a vibrant, inclusive and caring community. Our spaces and places will reflect the diverse tapestry that makes our NAU community so extraordinary, including a focus on NAU's Indigenous Populations. Physical spaces play an integral role in welcoming students and employees and instilling a sense of belonging and pride in each Lumberjack.

Interdisciplinarity is the heart of our academic and research missions, and our Master Plan reflects this ethos. By laying the foundation for state-of-the-art academic facilities, collaborative spaces, and cutting-edge research spaces we not only encourage partnership, but also empower our students and faculty to tackle society's most complex challenges head-on through research and service to the community.

Furthermore, the enhancements to campus infrastructure will embrace technology to ensure that our facilities are accessible, safe, comfortable, and conducive to learning and working. From the modernization and replacement of several academic buildings to address programmatic and deferred maintenance needs, to expanded housing and recreational facilities, and enhanced community access, we are committed to providing an environment that supports the holistic development of every Lumberjack.

And finally, as the title of this process implies, a cornerstone of this Master Plan is our commitment to sustainability and environmental stewardship. In an era defined by pressing global challenges, Northern Arizona University is particularly well positioned to lead by example. Our campus will be a living laboratory, showcasing innovative solutions for a more sustainable future. Significant infrastructure investments, energy-efficient building retrofits and automation, and the expansion of native landscaping underscore our commitment to environmental consciousness will be evident in every corner of our campus.

As we embark on this exciting journey, I want to express my deepest gratitude to all who have contributed to this endeavor. Together, we are shaping a future where Northern Arizona University stands as a beacon of knowledge, a force for positive change, and a source of inspiration for generations of Lumberjacks to come.

DR. JOSÉ LUIS CRUZ RIVERA
PRESIDENT
NORTHERN ARIZONA UNIVERSITY

SPECIAL THANKS TO:

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Phoenix Eskridge-Aldama, 2023 President of Graduate Student Government

Rebecca Seeger, 2022 President of Graduate Student Government

Steven Burrell, Vice President of Technology and Chief Information Officer

TC Eberly, Associate Vice President of Campus Operations, Campus Services and Activities

Valerie Elaine Barret, Manager of Planning and Space Management

NAU Strategic Roadmap

NAU - 2025 Elevating Excellence, the strategic plan endorsed in 2022, describes priorities compiled through the NAU community's thoughtful engagement process. The Plan reflects bold aspirations for the future and the evolving challenges and opportunities facing public institutions of higher education. To equitably serve students and communities from all backgrounds, identities, and lived experiences, our commitment to diversity, equity, inclusion, and justice is infused throughout both the Strategic and Master Plans. The institution will capitalize on NAU's 124-year history of distinctive excellence as an engine of opportunity to drive social impact and economic mobility for the people of Arizona and beyond. The following priorities were established in the Strategic Plan and represent the foundation for the Master Plan

ACADEMIC EXCELLENCE

NAU's high-quality academic programs, general studies curriculum, and the teaching excellence of our faculty will foster students' knowledge and competencies necessary for professional success, informed civic engagement, global citizenship, lifelong learning, and the promotion of a more just and sustainable future.

STUDENT SUCCESS

Grounded in a student-centered institutional culture of care, NAU will provide accessible and affordable educational opportunities, with tailored support services that enable students to complete their academic credentials and realize transformative outcomes from their collegiate experience.

COMMITMENT TO INDIGENOUS PEOPLES

In recognition of the unique sovereign status of Native Nations and the sacred land on which the university was built, NAU will continue intentional support for Indigenous students, faculty, and staff; develop university-wide culturally responsive educational opportunities and programming; and build mutually beneficial partnerships with Indigenous communities that will position NAU as the nation's leading university serving Indigenous Peoples.

IMPACTFUL SCHOLARSHIP

NAU's teacher-scholars will engage in impactful research, scholarship, and creative activities to provide transformative learning opportunities, engage our diverse students and communities, advance disciplinary and interdisciplinary knowledge, and contribute to solving problems of regional, national, and global relevance.

MISSION-DRIVEN AND DIVERSE FACULTY AND STAFF

NAU will implement employment practices to support the recruitment, retention, development, and promotion of a highly qualified, mission-driven, diverse workforce. NAU's commitment to individuals from all racial, ethnic, cultural, and socioeconomic backgrounds, national origins, disabilities, age, veteran status, religious or political beliefs, sexual orientations, gender identities and expression, and lived experiences strengthens our institutional workforce culture that incorporates diversity, equity, inclusion, and justice in the pursuit of excellence and the promotion of student success.

Aligning Elevating Excellence with the Campus Environment

COMMUNITY ENGAGEMENT

NAU will engage locally, regionally, and globally with public and private partners to foster mutually beneficial relationships that enhance our student's educational experiences, contribute to broad social impact, and increase individual, communal, cultural, and economic vitality.

SUSTAINABLE STEWARDSHIP OF RESOURCES

NAU will effectively utilize our physical, technological, and financial resources in support of our vision and mission, with a commitment to the responsible use of environmental resources, innovative use of technology, and mission-driven financial investments and philanthropic activity.

SUSTAINABILITY

The Strategic Plan is a result of the goal to re-imagine how NAU utilizes and continually improves physical resources to optimally deliver all aspects of the university's mission. NAU aspires to be a catalyst of change in higher education institutional impact of sustainability climate adaptiveness.

Source: NAU 2025 - Elevating Excellence

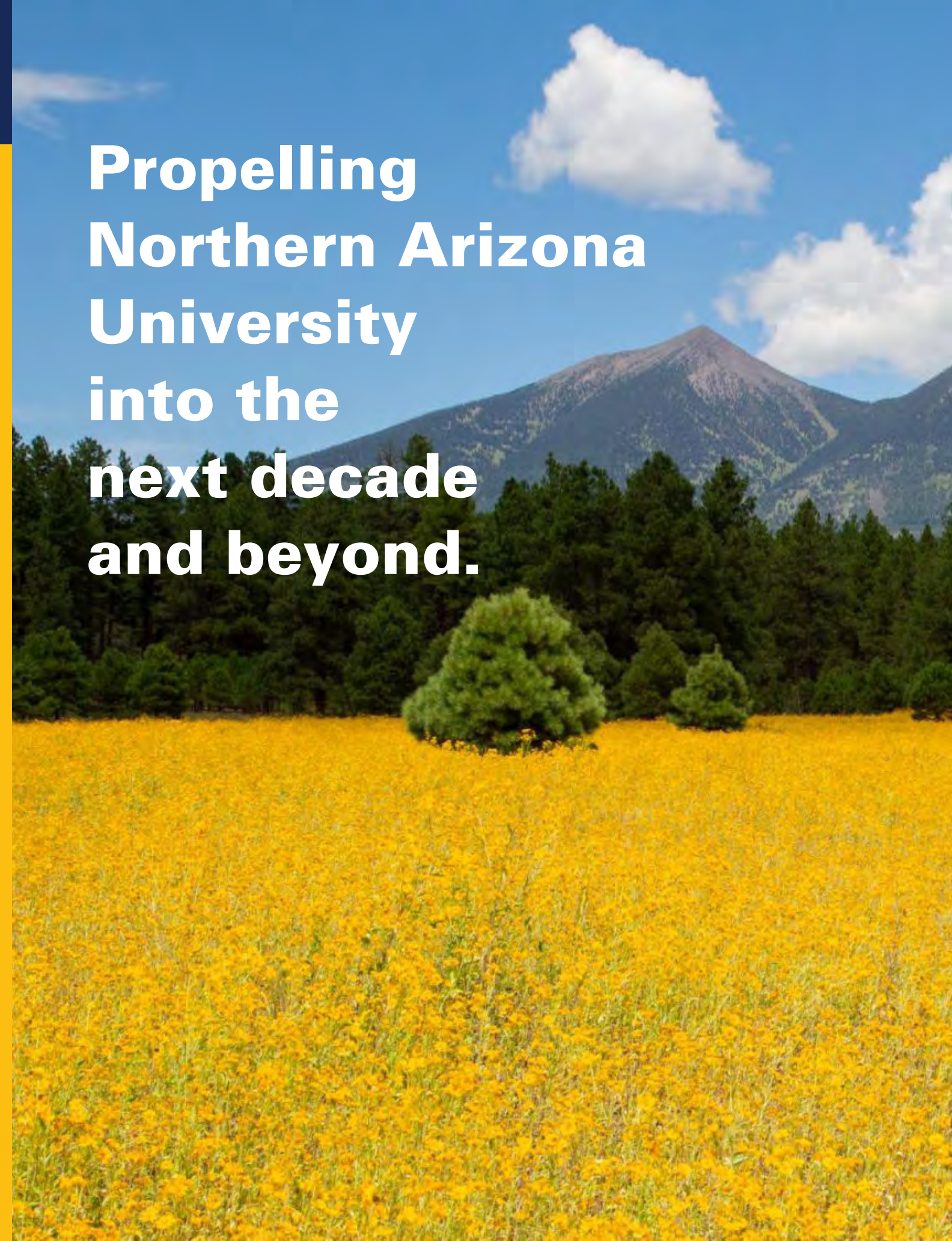
The Comprehensive Sustainable Smart Campus Master Plan is the physical manifestation of the Elevating Excellence Roadmap and the academic mission of the university.

Achieving the vision set forth in *Elevating Excellence* will require changes to the physical campus. The Campus Master Plan furthers the university's long-standing mission and documents the vision for the physical campus environment.

The Master Plan is an ambitious, yet realistic, shared vision that will guide the physical development of NAU over the next decade and beyond.

Decisions regarding the prioritization of needs are outlined, including all the strategic planning methods that have gone into its development. Within the plan are recommendations for the physical campus environment, including land use, open space, infrastructure, and circulation.

**Propelling
Northern Arizona
University
into the
next decade
and beyond.**



The Comprehensive Sustainable Smart Campus Master Plan establishes a vision for a vibrant campus environment.

The Comprehensive Sustainable Smart Campus Master Plan (“Master Plan,” “Plan”) envisions a dynamic campus that addresses both the current and future needs of the university. **Instead of focusing on physical expansion, the Plan optimizes existing physical assets of the campus, transforming it into a center for discovery, innovation, societal change, and learning.**

The Plan emphasizes priority facility projects that will be implemented in the coming decade and beyond. These projects encompass strategies for preserving and repurposing existing buildings while also proposing new and replacement structures.

A key aspect of the Plan is the integration of a unique and distinctive landscape strategy, a comprehensive sustainability framework, forward-thinking infrastructure, and a comprehensive multimodal circulation strategy. Together, these components ensure seamless movement and connectivity across the entire campus.

The Plan reimagines how NAU utilizes and continually improves physical resources to optimally deliver all aspects of its mission within the context of climate and carbon commitments, a post-pandemic environment, a commitment to safety and health, and ongoing prioritization of exceptional student learning, service, and support.

This Plan responds directly to the university’s strategic road map with bold actions and deliberate measures:

- Focuses on students on campus today and promises to embrace students of the future
- Promotes an inclusive campus environment
- Reflects the thoughts and passionate ideas of a variety of voices
- Stretches sustainability and resiliency actions to meet NAU’s carbon commitments
- Encourages ideas that embrace and welcome the many communities of Northern Arizona

Aligned with the strategic priorities outlined in the Climate Action Plan and Roadmap to Carbon Neutrality and incorporating the themes, goals, and principles of the Plan, this visionary blueprint outlines a framework for the university’s growth and development over the next ten years.

The Role of the Comprehensive, Sustainable, Smart Campus Master Plan

The Campus Master Plan is the principal planning document for the physical campuses of NAU. It defines and sets the direction for the ongoing development of the campus environment that supports the mission, core values, and heritage of the institution.

The purpose of the Plan is to:

- **Craft a vision for the future that aligns with the strategic direction of the university**
- **Create a guide for physical development over time**
- **Establish a basis for informed decision-making**
- **Strengthen relationships across the campus and within the community**
- **Provide a road map and tools for implementation**
- **Fulfill a requirement of the Arizona Board of Regents**

Planning is an ongoing process; a flexible framework must be in place that can respond to current and future needs. While the goals, principles, and values of the Plan will remain consistent over time, the physical implementation of these will need to evolve to meet unanticipated changes. The Plan is developed with the intent to be adaptable to the changing needs of the institution.

The consideration of a future campus is centered around creating outstanding student engagement, optimizing resources, and anticipating new perspectives on human interactions and experiences in both the physical and virtual world.

NAU is pursuing the possibilities of a Smart Campus through integrating technological influences into the campus environment. Influences thoughtfully consider a future defined by new interactions among humans and cyber sentient entities, redefining the sense of place, and projecting the impact of innovations of technology, autonomous vehicles, automated building infrastructure, augmented realities, and immersive virtual learning space to create unique working and learning experiences.

Within the Master Plan recommendations, there are opportunities to pilot new technologies for campus circulation, gathering spaces, wayfinding, information sharing and collection, learning and working spaces, and building design.

The diagram on the following page describes the relation of past, current and future planning efforts to the Plan. To support NAU's Master Plan, additional studies have been recommended to enhance and expand the university's understanding and direction of the physical campus. These future plans will provide more detail around specific elements and campus programs.

Integrated Planning



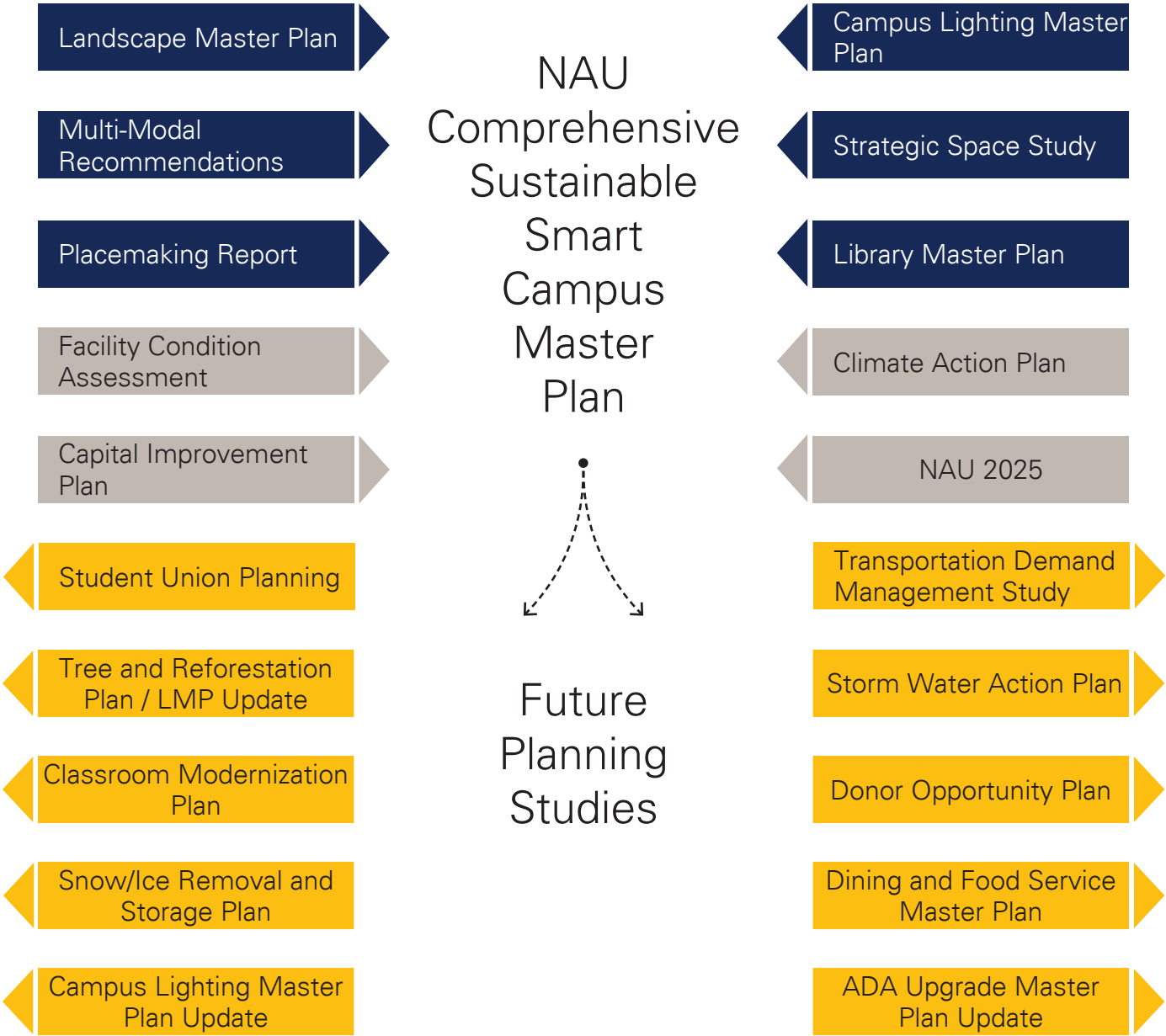
PREVIOUSLY COMPLETED
PLAN / STUDY



ON-GOING PLAN / STUDY DURING
CAMPUS MASTER PLAN



RECOMMENDED FUTURE
PLAN AND/OR STUDY



Process and Schedule

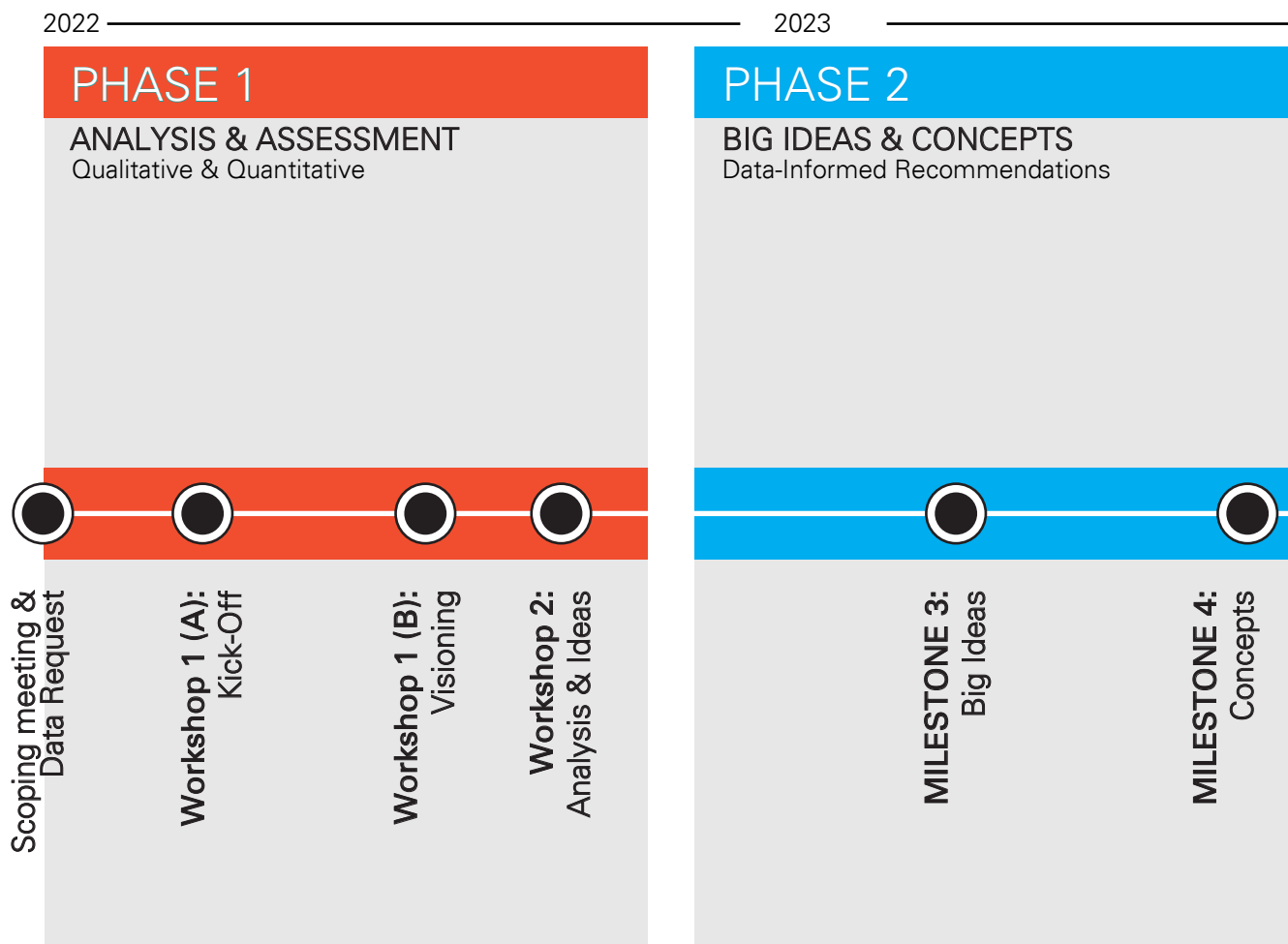
Throughout the planning process, we created a prioritized road map for the future of NAU.

A successful plan is built with critical input from students, faculty, staff, administrators, and community members throughout all phases of the project. The project kicked-off in April 2022 and will be presented to the Arizona Board of Regents for approval in Fall 2023.

During each phase, various workshops, milestones, and deliverables were completed.

Phase 1 - Analysis & Assessment

In Phase 1, the focus was on conducting a comprehensive analysis and assessment of the existing campus conditions, needs, and challenges. This involved gathering data, conducting surveys, interviews, and workshops with interested and affected parties, and analyzing various factors such as enrollment projections, infrastructure, transportation, sustainability, and campus culture.



Phase 2 - Big Ideas & Concepts

Phase 2 focused on generating vision, inspiration, and design principles that shape the future vision of the campus. It involved brainstorming sessions, design charrettes, and workshops to explore innovative and creative possibilities.

Phase 3 - Planning for Implementation

Phase 3 involved developing a detailed plan for Master Plan phasing. It included prioritizing projects, defining strategies, creating an implementation timeline, cost and impact analysis, and establishing a framework for resource allocation.

Phase 4 - Documents & Approvals

The final phase compiled final deliverables and approvals from necessary parties, including the Board authorities, Arizona Board of Regents. It included the comprehensive report, models, tools, presenting the Plan to decision-makers, and incorporating final feedback.

PHASE 3

PLANNING FOR IMPLEMENTATION

Project Prioritization & Phasing



MILESTONE 5:
Draft plan & Prioritization



MILESTONE 6:
Phasing & Funding

PHASE 4

DOCUMENTS & APPROVALS

Visualization & Communication



MILESTONE 7:
FINAL PRESENTATION

CAMPUS AND COMMUNITY ENGAGEMENT

Though the Plan was guided by planners, architects, and consulting experts, it is at its core, a community effort. **Through a series of active workshops, open houses, interviews, tabling activities, and digital tools, the voices of NAU students, faculty, staff, and community members were captured and their experiences informed the final deliverables and outcomes of the project.** This engagement defined goals, prioritized planning solutions, and encouraged participatory decision-making. Most of these sessions included interactive components where participants worked alongside the project team to advance the Plan in real-time. The holistic view that results from this level of engagement creates momentum and buy-in that is essential for the implementation and long-term success of the proposed Master Plan.



FOCUS GROUPS AND DEEP DIVE MEETINGS

As part of the Plan, focus groups were established to drive and inform the planning process. Key to the process were frequent touchpoints with these groups as well as in person and remote interviews with university leadership, meetings with affinity groups, school divisions, departments, colleges, and key constituency groups including the public.



DIGITAL ENGAGEMENT

A project website was developed for the Campus Master Plan and served as an active homepage that charted the schedule and progress while providing a platform to transfer information and communication to the campus community. Throughout the planning process, the project website included workshop reminders, updates, and reports.

Digital communication through the use of a project website and social media accounts complemented in-person sessions by providing easy access to presentation materials and acting as a conduit for participants to ask questions and provide input.



SURVEY AND QUESTIONNAIRES

A survey of NAU students, faculty, staff, alumni, and community members was conducted to better understand the experiences of individuals and their ideas for a future campus. Topics focused on services and resources, circulation patterns, wellness, dining and retail, and points of interest. In total, more than 1,500 individuals participated in the survey. The results of this survey and all engagement can be found in the Campus Engagement Report located in the Appendix.



150+

Comments submitted on website



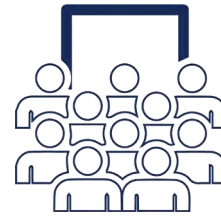
50+

Focus Groups



550+

Staff Participants



600+

Student Participants



200+

Faculty Members



1,500+

Survey Responses



2,000+

Website Participants



5,000+

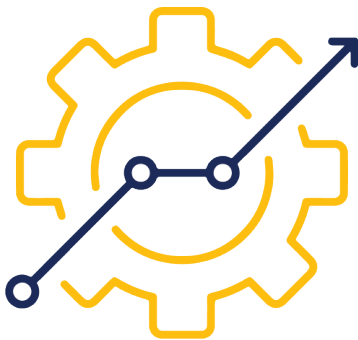
Total Participants

The drivers of the Comprehensive Sustainable Smart Campus Master Plan are:



A Student-Centered Plan

NAU is a hub for learning, discovery, innovation, and societal change. The Plan seeks to adapt the campus environment to meet student needs of the future. The Plan also focuses on supporting all members of our diverse student body so they feel welcomed, supported, comforted, and safe. The NAU campus of the future will further reflect and enhance inclusiveness.



Resource Optimization

Presently, funding for campus physical growth is limited, but the need for higher education is greater than ever. Therefore the Plan's focus is less about physical growth and more about optimizing the existing campus over the next decade. The Plan addresses critical short-term needs that center around deferred maintenance and student success, as well as minimizing impacts on natural resources through carbon reduction as part of the Climate Action Plan.



Visionary Framework

This Plan sets a high-level vision for long-term development on the campus over the next decade and beyond. It balances aspirational thinking with a realistic understanding of constraints.

Aligning the Vision of the Plan

NAU Vision Statement:

NAU aims to be the nation's preeminent engine of opportunity, vehicle of economic mobility, and driver of social impact by delivering equitable postsecondary value in Arizona and beyond.

Above is the vision statement for NAU as an institution. During early phases of engagement for the Plan, the steering committee collaborated to create a vision statement that describes what they would like the Plan to help accomplish. This Campus Master Plan Vision Statement guided the process to confirm any decision or outcome proposed aligned with the collective vision.

Campus Master Plan Vision Statement:

NAU is a **welcoming community** that embraces **collaboration** and **inclusion** and **honors Indigenous Peoples. Sustainability, creativity, and accessibility** are all reflected in a **well-designed** environment that **connects people** and leaves a lasting imprint on one's experience.

Key Elements of the Plan



SENSE OF PLACE

Northern Arizona University is located in one of the most beautiful and culturally rich places in the United States. The plan must honor and reflect the sense of place including acknowledging the land:

“Northern Arizona University sits at the base of the San Francisco Peaks, on homelands sacred to Native Americans throughout the region. We honor their past, present, and future generations, who have lived here for millennia and will forever call this place home.”



INTEGRATION OF PAST PLANNING

Over the past decade, NAU has completed several plans and studies that provide direction to systems and spaces across campus. The Comprehensive Sustainable Smart Campus Master Plan must integrate these plans together, while adding more insight for the future.



STUDENT-CENTERED PLANNING

The campus will further develop student-centered spaces, which provide opportunities for collaboration, gathering, and connections for learning beyond the classroom. The Plan outlines and highlights facility needs around academic requirements, research, student life, and activities that support overall student success.



POST-PANDEMIC PLANNING

Higher Education has changed immensely as a result of the pandemic. The Plan considers changes and new strategies around teaching, learning, and working environments for the campus such as updated space metrics to encourage collaboration, large, flexible and tech-rich classrooms, and hybrid work policies that allow for flexibility of workspace.



EQUITABLE PLACEMAKING

The campus serves populations today that are different from who it was designed for. Today and in the future, NAU students, faculty, and staff will continue to evolve, and the Plan must consider changes to the physical environment that celebrate and represent them and the larger campus community.



CONNECTED CAMPUS: SMART TECHNOLOGY CAMPUS ELEMENTS

NAU is pushing the boundaries of creating a frictionless campus environment. In partnership with Information and Technology Services, the Plan must incorporate smart technology solutions across the physical campus.



SYSTEMS THINKING: INFRASTRUCTURE, CIRCULATION, OPEN SPACE

The Plan fosters a comprehensive planning approach, improving functionality, shaping campus identity, and prioritizing user experience and well-being. It also ensures the long-term adaptability of interconnected campus elements.



CARBON NEUTRALITY

The Climate Action Plan (CAP) and Roadmap to Carbon Neutrality outline NAU's commitment to sustainability and reaching carbon neutrality by 2030 for Scope 01 (onsite emissions, fleet and natural gas) and Scope 02 (purchased electricity). Investment in the university's infrastructure will be a critical component to achieving this commitment. By integrating climate considerations into this Plan, NAU will mitigate climate impact and promote a more resilient and sustainable campus community.



STATEWIDE LOCATIONS

The promotion of access to higher education, regional economic development, community engagement, distributed resources, and resilience are all important to NAU and statewide locations. By expanding and improving the NAU presence, the university can continue to fulfill the mission of providing high-quality education and serving the diverse needs of students and communities throughout the state.



COMMUNITY DYNAMICS

Planning for the relationship between the Flagstaff community and the NAU campus is crucial for fostering connectivity, promoting attainable transportation, providing access to essential resources, stimulating economic development, encouraging cultural exchange, and ensuring a positive town-gown relationship.



ASSET MANAGEMENT AND IMPLEMENTATION

To optimize resource allocation, promote long-term sustainability, inform strategic decision-making, enhance the user experience, ensure compliance and risk management, and foster accountability and transparency, NAU can create a resilient and efficient campus environment supporting its mission and goals.

Campus Today

NAU's campus has a variety of needs addressed throughout this Plan.

ACADEMIC NEEDS

- Consolidating colleges: will reunite users who are currently spread out across campus and enable participation in interdisciplinary work
- Create inter/intra-college community dialogue by developing spaces to come together (library, academic living rooms, lounges, study spaces)
- Implement the Library Master Plan
- Redesign teaching spaces to support a more active learning environment and provide training/incentives to do so
- Ensure the presence of spaces that foster and support the research, scholarly and creative work of the campus community

LANDSCAPE AND OPEN SPACE NEEDS

- Replacement and establishing of plantings, especially native, educational, and tree restoration
- Conversion of ornamental grass turf to more native and drought tolerant plantings
- Landscape on campus edges and entries
- Outdoor learning spaces and East-West Pedway connections
- Reinforcement of green space as critical enrollment factor and student wellness

SAFETY NEEDS

- Address perceived dark areas, while balancing dark sky requirements including night walk
- A cohesive emergency and communication system to compliment or replace the legacy blue phone system

CIRCULATION NEEDS

- East-west connections and enhancement of Pedway
- Alternative transportation including bike lanes (where missing) and storage, scooter and skateboard needs, missing sidewalks
- Parking toward the edges of campus and fewer internal parking lots
- Separation of circulation modes, including e-mobility, specifically on the Pedway
- Incentivization of electric vehicles and transit
- Address vehicular intersection and pedestrian conflict areas

STUDENT LIFE NEEDS

- University Union renovation to align with need for clubs, organizations, informal study spaces, and lounges
- More on-campus housing to meet a growing demand
- Student-focused amenities on south campus
- Additional recreation and wellness space on south campus

SUSTAINABILITY NEEDS

- Follow goals established in, and continue to improve campus through the Climate Action Plan and Roadmap to Carbon Neutrality
- Reduction of overall campus Energy Use Intensity
- Improved recycling/waste management and behavior change programming

INFRASTRUCTURE NEEDS

- Resiliency in infrastructure and utilities
- Stormwater maintenance
- Planning and resource allocation for the implementation of geothermal and woody biomass next generation heating and cooling systems

Campus Today (2023)

- EXISTING BUILDINGS
- EXISTING PARKING
- CAMPUS BOUNDARY



Statewide Campuses and Locations

STATEWIDE LOCATIONS FUTURE PRIORITIES

Expanding for workforce development.

NAU is currently studying industry trends to ensure that program offerings are in alignment with the changing needs of Arizona's workforce. Most of NAU's projected enrollment growth is planned to occur at statewide locations, therefore program offerings must be focused on high-demand, high-growth programs, such as Nursing, Allied Health, and Engineering. For example, at North Valley, there is a current initiative to expand healthcare programs such as accelerated nursing, allied health, and occupational health.

Investigating the opportunity for regional branch campuses. While NAU has not had specific conversations with partners in the statewide sites, as an institution, NAU is investigating how a regional presence makes a difference in how students are served. The goal is to make education accessible and affordable for students across the state. A current consideration is to create standalone branch campuses throughout the state. Unlike many of the locations today, the branch campuses should be planned and designed to create a complete campus experience that is in alignment with the NAU brand. The campuses should include spaces and programs that include student services, wellness spaces, student space, dining, residence halls, etc.

Partnerships are key. Within statewide locations or with the expansion of branch campuses, collaboration and partnership with the local institutions is critical for articulation agreements, sharing space, services, and amenities.



- MAIN, OR MOUNTAIN, CAMPUS
- NORTHERN ARIZONA LOCATIONS
- CENTRAL ARIZONA LOCATIONS / MARICOPA COMMUNITY COLLEGES
- SOUTHERN ARIZONA LOCATIONS

Source: <https://nau.edu/about/locations-and-maps/>

Expanded programs within the Reservations and Tribal Community. NAU is also investigating the opportunity to provide services and programs within reservations and tribal communities across the state.



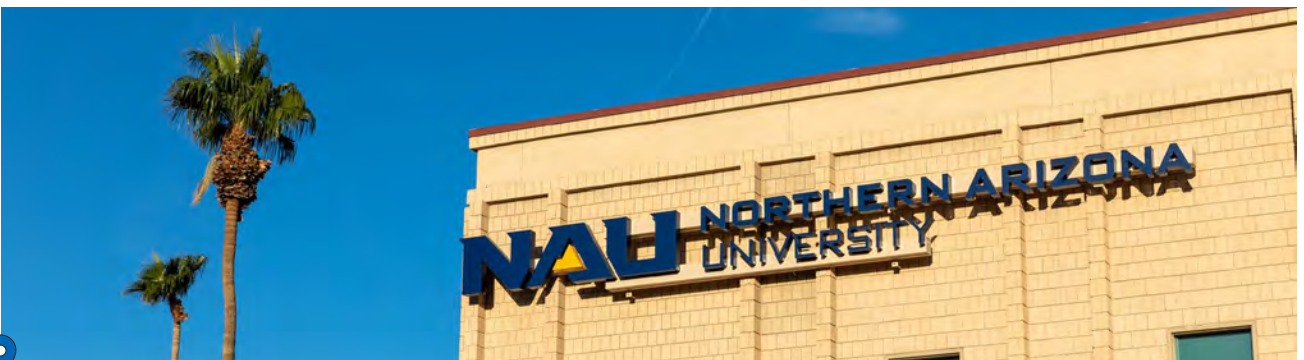
Main or Mountain Campus



NAU-Yavapai

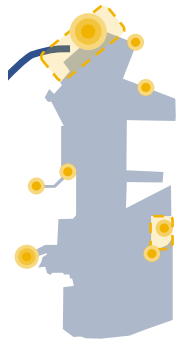


Phoenix Bioscience Core



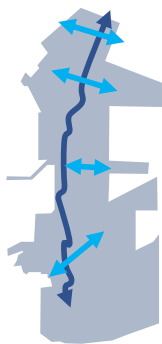
NAU-Yuma

Planning and Development Framework



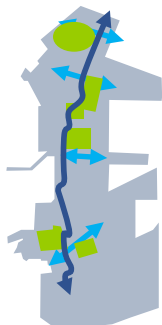
USE CAMPUS EDGE TO CONNECT TO COMMUNITY

The campus edge offers an opportunity for improvement and enhancement. NAU can create a welcoming transition between the campus and the surrounding Flagstaff community through a thoughtful landscape, the incorporation of pedestrian-friendly pathways, and the integration of signage, art, and gathering spaces. Enhancing the campus edge can foster a stronger sense of connection and collaboration with the community, while also creating a positive first impression for visitors. Additionally, attention to safety, lighting, and accessibility can further improve the functionality and attractiveness of the campus edge, ensuring that it serves as a vibrant and engaging gateway to the university.



STRENGTHEN EAST-WEST CONNECTIONS

Strengthening the east-west connections is crucial for enhancing accessibility and universal design, promoting efficient circulation, and fostering a cohesive campus environment. Seamless pathways facilitate movement between different academic and administrative areas, which can be achieved through the development of well-designed pedestrian and cycling routes, the integration of wayfinding signage, and the creation of vibrant gathering spaces along these connections. These connections enhance the sense of community and unity within the campus, allowing for a more integrated and dynamic learning and working environment.



IMPROVE UNDERUTILIZED OUTDOOR SPACES

By revitalizing underutilized outdoor spaces, NAU can create versatile and functional environments that cater to various needs and activities. This could involve redesign, incorporating different seating options, providing shade structures, and integrating amenities such as Wi-Fi access and power sources. Additionally, the introduction of new landscape elements and art installations can transform underutilized spaces into vibrant and inviting areas that promote relaxation, socialization, and outdoor learning. By optimizing these outdoor spaces, NAU can create dynamic campus environments that enrich the student experience, foster a sense of community, and promote overall well-being.



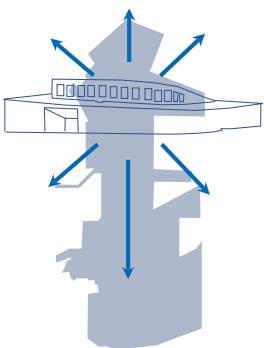
CREATE A MORE EFFICIENT SERVICE HUB AND NETWORK

Streamlining operations and providing enhanced support to the campus community can be done by centralizing key services and resources into well-designed hub areas, where NAU can improve convenience and accessibility for students, faculty, and staff. The Plan will consolidate administrative offices, student support services, and campus facilities into locations that offer easy access and efficient workflows. Establishing two hubs of service ensures essential resources and assistance are readily available for academic and residential areas. NAU can optimize its operations and enhance the experience, especially with the new south campus service hub area, which has the most opportunity for growth.



RESOLVE VEHICLE AND PEDESTRIAN CONFLICT AREAS

By identifying and addressing conflict areas, NAU can implement measures that promote coexistence between cars, bicycles, and pedestrians, ensuring the safe and efficient movement of all campus users. Such measures include redesigning intersections, crosswalks, and parking areas to prioritize pedestrian safety and improve visibility. Examples of implementing traffic calming measures include closing Knoles Drive to single occupancy vehicles at peak times of day. Enhancing signage, implementing designated pedestrian zones, and providing clear markings can all help clarify the right-of-way and improve overall traffic flow for a smooth and efficient campus.



INDIGENIZE NAU

By embracing and integrating Indigenous perspectives, knowledge, and culture from the Native American Cultural Center (NACC) throughout campus, the NACC can serve as a hub for education and cultural activities that promotes appreciation of Indigenous traditions. The planned expansion of the NACC footprint will serve growing programs. Incorporating medicinal plants across the campus not only honors healing practices but also provides education opportunities. Due to the relationship with cemeteries, it is important to obstruct the views to them from campus to make Indigenous campus users feel more comfortable. Installing murals, flags, and other art that reflect Indigenous stories, communities, nations, symbols, and experiences can visually represent and celebrate Indigenous cultures. Creating talking circles and gathering spaces encourages dialogue, community-building, and the sharing of Indigenous knowledge.



ADDRESS DEFERRED MAINTENANCE AND INFRASTRUCTURE

It is crucial to ensure that the backlog of maintenance projects is steadily decreasing instead of growing each year, and to find ways to implement smaller, more manageable improvements alongside larger capital projects. While some facilities are candidates for demolition, it is important to also prioritize key renovations of existing assets. Investing in the utility plant locations is vital to maintain the functionality of the campus, with particular attention to the aging south plant which requires action within the next decade. This goal is vital in supporting NAU's Climate Action Goals along with improving operational efficiency and taking a proactive approach to campus improvements.



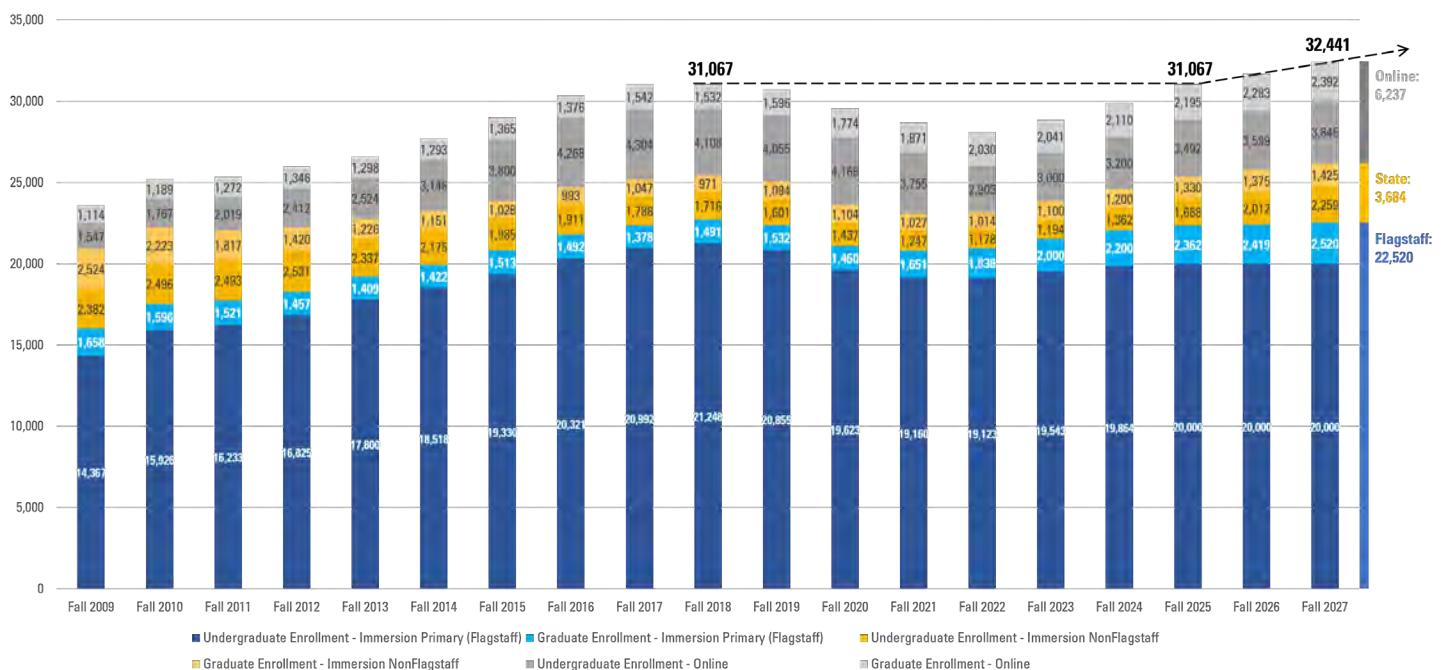
CONSOLIDATE ACADEMIC USES AND BUILD COMMUNITY WITHIN DISTRICTS

By strategically consolidating disciplines that are spread widely across campus, such as engineering (yellow), social behavioral sciences (green), and health and human services (blue), NAU can minimize collaboration "commute" times and reduce cross-campus traffic. Promoting cohesion, it also encourages interdisciplinary collaboration and creates a sense of community within specific districts. Bringing related academic departments and faculty closer together will enable for innovation and integrated learning.

Enrollment

The 2019 Strategic Space Utilization Study established a consistent upward trajectory growth of 35% for the ten-year period of 2008-2018 with a planned 1.5% annual increase through 2024. The majority of this growth is anticipated to occur online and in the adult learners group. The space study assumed steady student enrollment as their basis for the space needs due to the assumption that growth would primarily be focused online and have limited impact to space.

The Master Plan assumes on-campus enrollment stays at current levels and focuses on better adapting and extending current campus facilities and space to align with current students' needs. This includes growth in areas that support the student experience such as student housing, student academic support, as well as student socializing and recreation space. The space outlook instead centers on adapting and developing space that aligns with NAU's modern needs with an emphasis on establishing spaces that support NAU's future goals and active environment.



Provided by Enrollment Management and ABOR Approved, 2023



NAU must move to from a culture of space ownership to a culture of space sharing.

Space is a resource. The amount of space owned and operated by a campus directly impacts the bottom line of a university's resources. When growth of space continues to outpace enrollment, this adds to operating and capital renewal burdens. A leveling off of space growth relative to enrollment is an important step to maintain future resources. To that end, implementation of this Campus Master Plan is dependent on adopting the policies and space management that promote the optimization of space and a change in culture.

The 2019 Strategic Space Utilization Study established additions to the Space Policy, written using the established NAU Design Guidelines and Policy on Research Space as a basis. This Master Plan includes guidelines within the Appendix. (Forthcoming in next draft)

While not included in this master plan, strategies to encourage a culture of sharing include: renaming buildings as neutral, financially incentivizing sharing among faculty and researchers, and a charge back program for space use.

Culture of ownership vs. culture of sharing. The ownership of space has been embedded into policy and operations of higher education for decades. The university should prioritize funding for projects and units that will share space or work differently. Pilot projects are a strategic way to see what works and doesn't, prior to policy change or campus-wide adoption.

When space is "owned" there can be a perceived lack of space for connected programs or extended amenities. By identifying policies, metrics, and guidelines to build a space culture that connects programs and embraces collaboration positively, the university will increase its utilization and establish an environment that is adaptable to the varying needs of their students and staff.

To best develop these spaces and increase utilization, the university will need to further embrace the culture of sharing. Developing flexible spaces and embracing shared amenity spaces will provide opportunities for interdisciplinary learning and connecting programs together.

Post-Pandemic Campuses. Post-pandemic campus needs have shifted focus from singular designated spaces to the need for a variety of spaces that support a diverse range of modalities. Administrative and Human Resources Policies have to be in place first, and space management and assignments can follow. Several administrative policies must also change to further enforce the strategies within this chapter, including the adoption of central scheduling policies and focusing on shared and flexible spaces.

Climate Action Plan Priorities

The most sustainable structures are those that are already built. While space was not specifically a topic of the Climate Action Plan, the document did test a no-net increase in gross square footage and assume that any building growth does not directly correlate to an increase in campus energy demand.



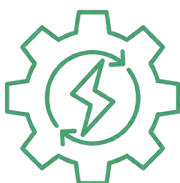
RESOURCE EFFICIENCY

Effective utilization of existing built spaces is a critical component of any effort to fully realize the emission reduction goals of the Climate Action Plan. The emissions associated with traditional methods of construction and building products (embodied carbon) have the potential to effectively cancel out the reductions in operational carbon emissions. One of the most effective strategies to address carbon emission is to reimagine how to more effectively use and implement deep energy retrofits for renovating existing spaces wherever possible.



CULTURE OF SUSTAINABILITY

Moving to a culture of sharing is inherently a sustainability initiative. Better utilizing what the university currently operates impacts energy and water use, carbon emissions, and saves financial resources. Changing engrained behaviors of space ownership aids in the perceived 'lack' of space on campus, and challenges the university to manage space versus remain on a path of continuous growth. While this Master Plan does plan for an increase in square footage overall it is not driven by growing academic or administrative space. This growth is driven by new programs and initiatives, such as community uses, fulfilling the demand for housing, and right-sizing or consolidating academic units that impact student success.



CARBON NEUTRALITY

In terms of space, it is important that NAU considers the space implications of new infrastructure systems on campus, such as woody biomass or geothermal, with a geoexchange system. The space to support these new decarbonized utility systems on campus require larger land areas.

PROPOSED WORKSPACE STRATEGIES

Future workspace configurations should consider a multitude of working modalities and include a variety of space types that are adaptable and future driven.

Many academic and administrative units voiced a need for hoteling desks and flexible workspaces with the availability of private and virtual meeting space on an as-needed basis to touchdown throughout the campus. These private meeting spaces will also be used for confidential in-person discussions.

Building renovations and new construction should be planned, designed, and built with adaptability for changing workplace needs. Private workspace should be balanced with flexibly designed workspace allowing for shared workspace and collaborative work.

Suggested Workspace Policies. As a strategy for optimization and right-sizing, NAU should move away from space standards that rely on title and instead focus on what type of space is truly needed by an individual's and team's work.

The Master Plan confirms several of the office space policy recommendations from the 2019 Space Study including:

- Shared office support spaces should be allocated at a building level, not a department level.
- Conference rooms should be shared and available for use across all units and departments.
- Each faculty should be allocated just one office space and have access to additional open workstations when frequently working across buildings.

Availability of touchdown space. Each faculty and staff member should be allocated just one work space and have access to additional open work areas and hoteling space when frequently working across buildings.

Building-wide co-working and meeting spaces. Where possible, shared workspace for individuals who have not been assigned a private office, adjunct faculty, grad students, and post-docs should be allocated at a building level, not a department level. This strategy allows for the increased utilization of space and increases the opportunity for interdisciplinary collaboration. In addition, meeting spaces and conference rooms should be shared and available for use across all units and departments within a building.

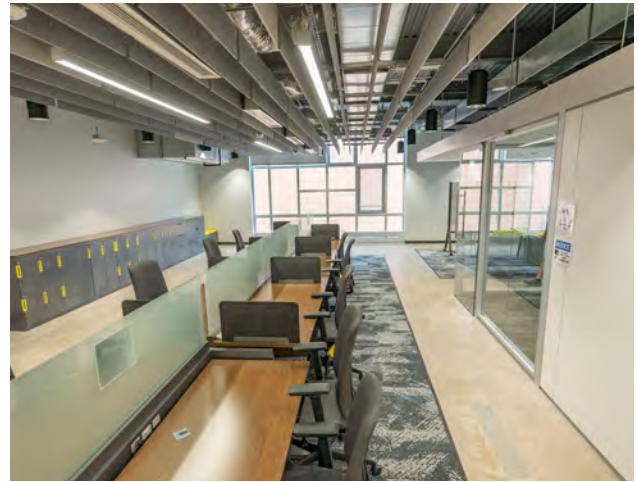
The Master plan recommends updates to the following Office Space Policy recommendation:

Revise office size standards and metrics.

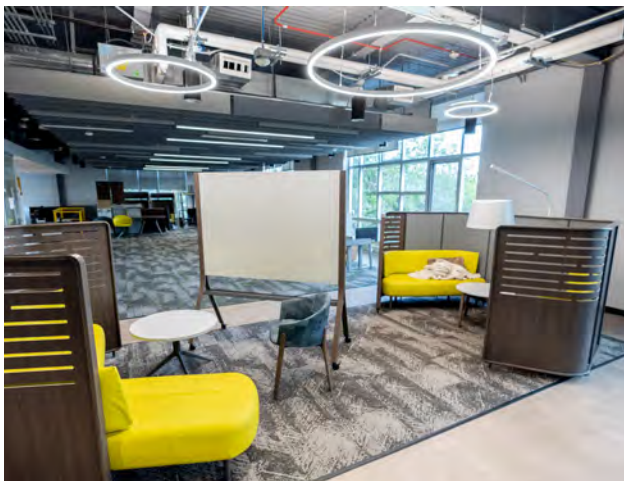
The Master Plan recommends diviating from the 2019 Space Study recommendations around office space assignments based on job title. Rather, work space assignments should align with work composition. For example, if a day-to-day tasks require consistent confidential conversations throughout the day and/or a majority of the work requires hard focus, the employee should have regular access to private workspace, or be assigned a private office. If day-to-day tasks involve collaboration with others, shared work space and meeting spaces should be provided for the team to function as a cohesive unit.



Counseling offices that allow closed doors and multiple users



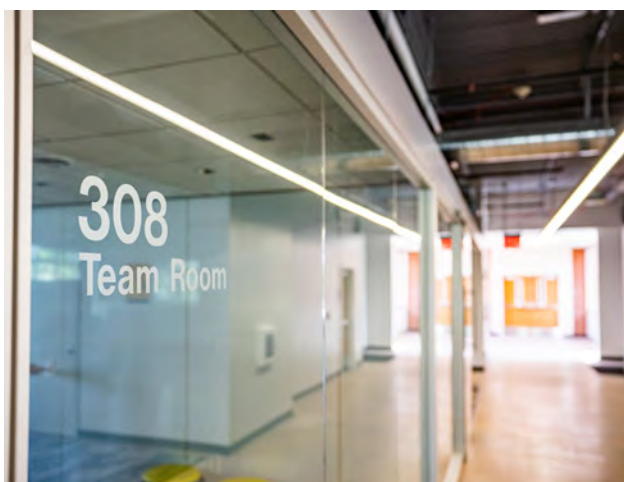
An open concept and shared faculty center



Flexible spaces and furniture that can be changed as needed



Focus "heads-down" areas for work to occur



Collaborative team based work space



A traditional, private faculty office, when privacy is needed

Proposed Workspace Standards: The following workplace standards are more flexible and adaptive to varying unit needs. Positions are grouped into broad categories for simplicity. The recommended square footage represents the total workspace square footage *per person*. This number includes access to individual workspace, break rooms, collaboration space, conference rooms, and workrooms. This more flexible standard empowers unit decision-makers to prioritize the types of space needed most, whether that be meeting rooms, private offices, or collaboration spaces. This change in how NAU approaches workplace standards was developed in collaboration with Facilities to verify it's alignment with the university's future objectives.

POSITION	TOTAL SF PER PERSON
SENIOR ADMINISTRATION	350
DEANS AND ASSOCIATE DEANS	300
SENIOR STAFF AND DEPARTMENT HEADS	250
FACULTY	200
FACULTY (WITH STUDIO)	230
STAFF (STUDENT-FACING)	150
ADJUNCT FACULTY	100
STAFF (NON-STUDENT FACING)	100
STUDENT	50

Programming and Design for Workspaces:

Future buildings and renovations at NAU should use the instructional and workplace standards for programming and be designed with adaptability in mind to serve the future needs of NAU. These examples show various workplace designs from the more traditional private office setup to a more collaborative open design. The workplace standards are flexible allowing units to devote their space square footage to the areas that work best for their individual needs. Each design is devoted the same amount of square footage but showcases how the layout of the space impacts how many individuals can be accommodated by the design.



Traditional: Heavily focused on private space, larger office sizes, some meeting space centrally located.



Collaborative Lite: An equal mix of private space, open space, and collaborative breakout areas.



Collaborative Focused: Primarily open flexible spaces with breakout areas as needed. Great for hoteling, grad students, or team-based units.

PROPOSED INSTRUCTIONAL SPACE STRATEGIES

Classrooms

The lack of active learning classrooms available, compared to the demand for them from professors and students was continuously brought up through master plan discussions. Academic classrooms developed in future renovation and new construction projects should align with active classroom square footage requirements to help cover the need noted.

Suggested Classroom Space Policies

This Master Plan confirms several of the Classroom Policy recommendations from the 2019 Strategic Space Utilization Study including:

- Optimize the inventory by creating flexible spaces.
- Centrally manage all classrooms through the Registrar.
- Prioritize section size and room capacity fit by verifying the courses assigned to rooms align with the room size.
- Data informed enrollments by allocating classrooms based on the historical enrollment of courses.

The Master Plan recommends updates to the following Classroom Policy recommendations:

- Investigate the potential student success impacts Expand the scheduling envelope to earlier in the morning and evening courses as well as scheduling more courses on Fridays.
- Standardize classroom functionality with consistent technology and furniture, while also providing flexibility within the rooms for a variety of layouts supporting multiple modalities in learning and teaching.
- Expand active learning space across campus, phasing out 'traditional' classrooms. While active learning classrooms are more adaptable and a significant need for the University, they are not the only classroom type beneficial to learning

Teaching Laboratories

Teaching laboratories should be flexible to suit multiple purposes and have shared support rooms such as shared storage or class laboratory service space. The condition of instructional labs and equipment must be maintained to minimize liability due to aging instructional lab space.

Suggested Teaching Laboratory Space Policies

The Master Plan confirms each of the teaching laboratory policy recommendations including:

- Establishing utilization targets with an emphasis on adequate time for lab setup/prep time.
- Shared labs and support spaces should be developed where multiple courses can benefit from the space.
- Standardize room functionality to maintain parity in room technology, furniture, and environmental features.
- Create setup time for all laboratory scheduling regardless of department



Classroom discussion with adjusted furniture



Computer labs, allowing technology updates



Classrooms that allow various sized groups comfortably



Technology and e-sports clubs and teams



Small, engaged classes in right-sized spaces



An adaptable more traditional classroom

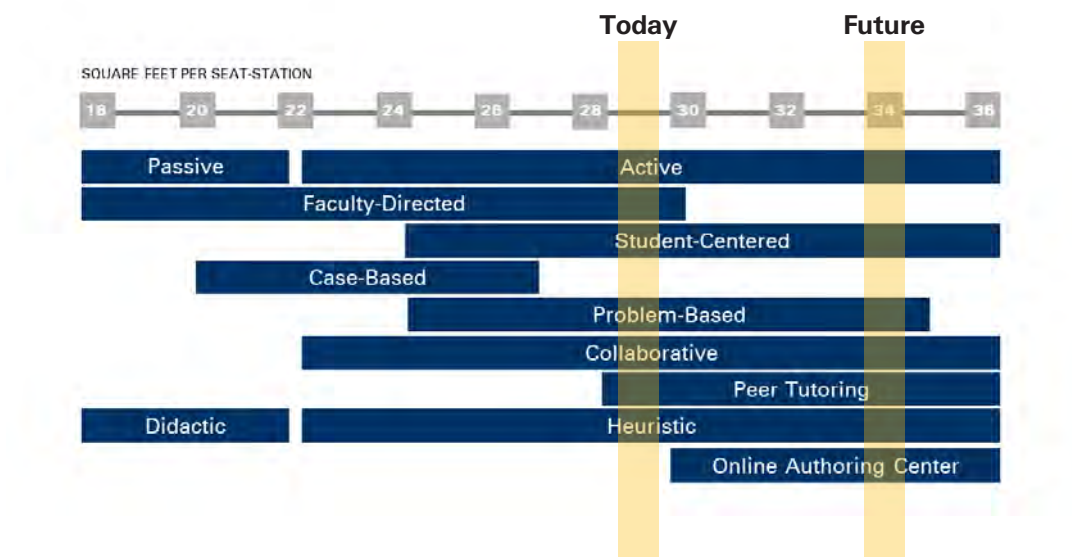
Proposed Classroom Standards

Instructional standards are developed based on national guidelines and post-pandemic trends in instructional space utilization.

This includes a slightly higher station occupancy for teaching laboratories which are more expensive spaces to be maintained and should be filled at a higher rate. Teaching laboratories have a lower hours per week goal to allow for flexibility between scheduled course hours. Space standard square footage allows for active, collaborative learning environments and flexibility for multiple teaching methods.

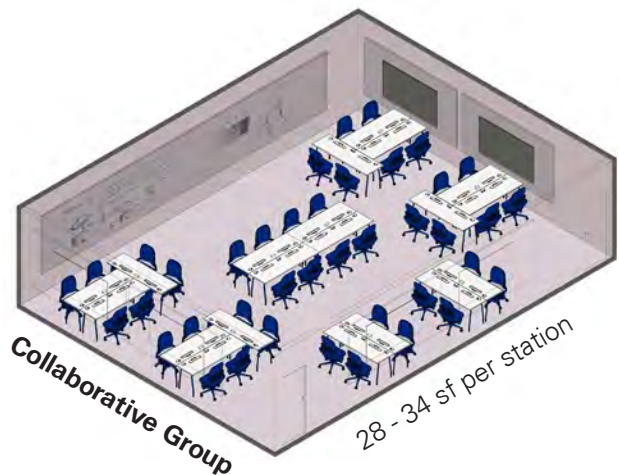
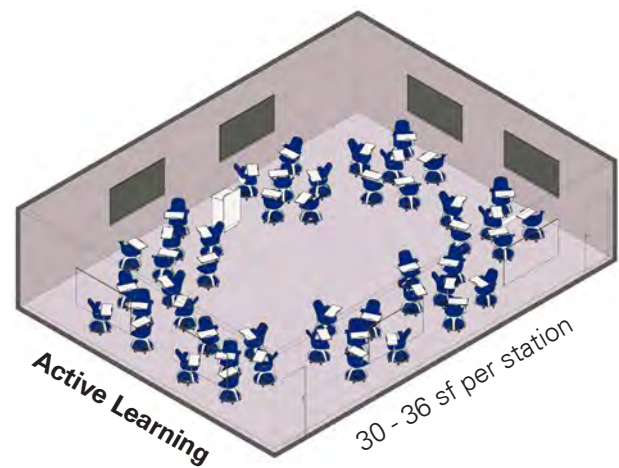
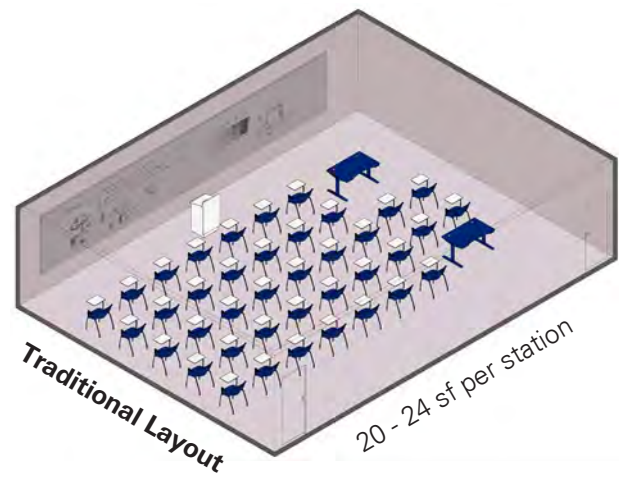
Teaching modalities have changed to be more active and collaborative. An increase in square footage per station will accommodate the movement of students in classrooms, creating instructional spaces that are more adaptive to the changing needs of the University. Today NAU averages 29 square feet per station in classrooms. This higher square feet per station allows rooms to be flexible for a variety of purposes including peer tutoring, collaborative group work, and student centered learning. Future projects at NAU should embrace this higher square footage and aim for 34 square feet per station allowing new teaching modes to be successful.

SPACE TYPE	SF/ STATION	UTILIZATION GOAL	OCCUPANCY GOAL	STORAGE/ SUPPORT FACTOR
Collaborative Classroom	36	30	70%	n/a
Computer Lab	30	20	75% - 80%	5%
Science Lab	70	20	75% - 80%	25%
Specialty Lab / Studio	100	20	70% - 80%	25%



Classroom Programming and Design

Institutions need a variety of classroom layouts to support the various teaching modalities. Student survey results referenced crowded classrooms as an impact to their learning. The increase in square feet per station in the proposed classroom standards allows for students to rearrange desks for group based work. These diagrams show a variety of ways a room may be structured and the associated square feet per station.



PROPOSED RESEARCH SPACE STRATEGIES

NAU's broad research impact includes community-based, creativity-based, humanities-based, and high science and technology research. To that end, research space should be planned holistically to think beyond wet laboratories, and address needs for more community oriented and undergraduate research opportunities.

Wet lab space should be bench-based, flexible, and modular to adapt to changing needs. Buildings must have adequate systems to ensure labs are efficient, operational, and safe. All new wet labs should follow green-lab guidelines to ensure they are performing in alignment with NAU's sustainability commitments.

Researchers in community and environment require space for meeting with visitors, processing data, or storing specialized field equipment.

Undergraduate research provides students with interdisciplinary opportunities that encourage collaboration, innovation, and creativity. In addition to typical wet and dry labs, undergraduate research requires ample group space, seminar rooms, maker spaces, innovation labs, Zoom rooms, and meeting space.

All laboratories should be in good condition to facilitate innovative work and research partnership opportunities. Future research space projects should be informed by a review of anticipated long term needs and developed for adaptability when possible, embracing the shared collaborative laboratory approach for the highest and best use of space.

Research Space Policies:

Research opportunities for NAU have grown to include community based and undergraduate based research. The policy recommendations presented as part of the 2019 Space Utilization Study were heavily driven by high science based research and should be evaluated more holistically to encompass all research space.

The Master Plan confirms several of the Research Space Policy recommendations from the 2019 study including:

- **Promote shared space:** Shared support space can drive interdisciplinary connection and increase space utilization
- **Systematically manage research space:** Departments and colleges should take an active role in evaluating and updating research data

The Master Plan recommends updates to the following research space policy recommendations:

- **Promote space standards:** Space standards are a great resource for building design but are most beneficial for high science laboratories and vary widely in social or specialized research efforts.

Space standards should be used as a guideline:

- **Incentivize building longevity and energy efficiency:** The process to increase building longevity and energy efficiency is important for NAU to meet its sustainability goals. This process should be led by the university in partnership with research, not individually by unit, this should be considered holistically when planning new buildings, additions, and renovations.



One-on-one spaces for education and learning



State-of-the-art lab and research spaces



Touch-down areas that have smart technology and basic office needs



Casual gathering areas that are comfortable



Traditional labs that are high functioning



Outdoor labs where the campus plays a role in learning

PROPOSED COLLABORATIVE ADAPTIVE SPACE STRATEGIES

The layout of Northern Arizona University campus naturally leads to a north-south separation. Over time this has begun to impact colleges situated in multiple buildings spread across campus. With a more hybrid approach to learning and working, individuals are focused on collaborating and establishing community with colleagues when they are on-site. Developing academic living rooms and touch down study space throughout campus is a focus for future projects on NAU campus. Academic living rooms can be developed in a variety of layouts with a mixture of comfortable seating, collaborative breakout space, small call rooms, and work desks. These types of spaces provide students with a necessary location to study which is noted as one of the highest space needs as part of the 2019 space study. They also provide the benefit of creating touch down space for colleagues or community members to meet.

PROPOSED STUDENT ENGAGEMENT SPACE STRATEGIES

Students desire informal spaces that facilitate group work and conversation as they collaborate with each other, along with spaces that are quiet for heads down studying or device free wellness spaces. This results in the need to balance multiple space typologies throughout campus. The 2019 Strategic Space Study found a shortage of study space and lounges on campus. Furthermore, any future improvements to the facility should be driven by a master plan assuring a consistent long-term strategy. *SEE CHAPTER 04, STUDENT LIFE FOR ADDITIONAL INFORMATION.*



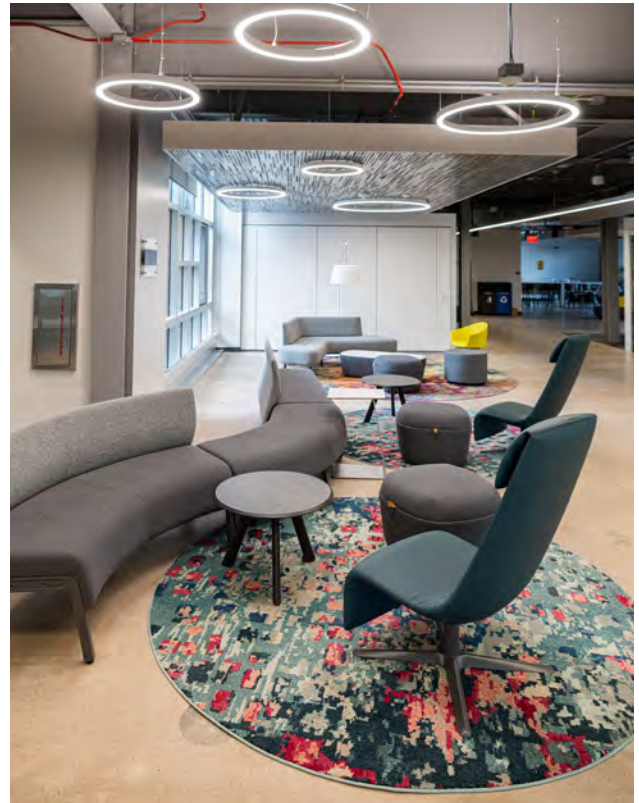
Comfortable and informal gathering spaces that feel inviting



Places that can adapt to different group sizes and independent work

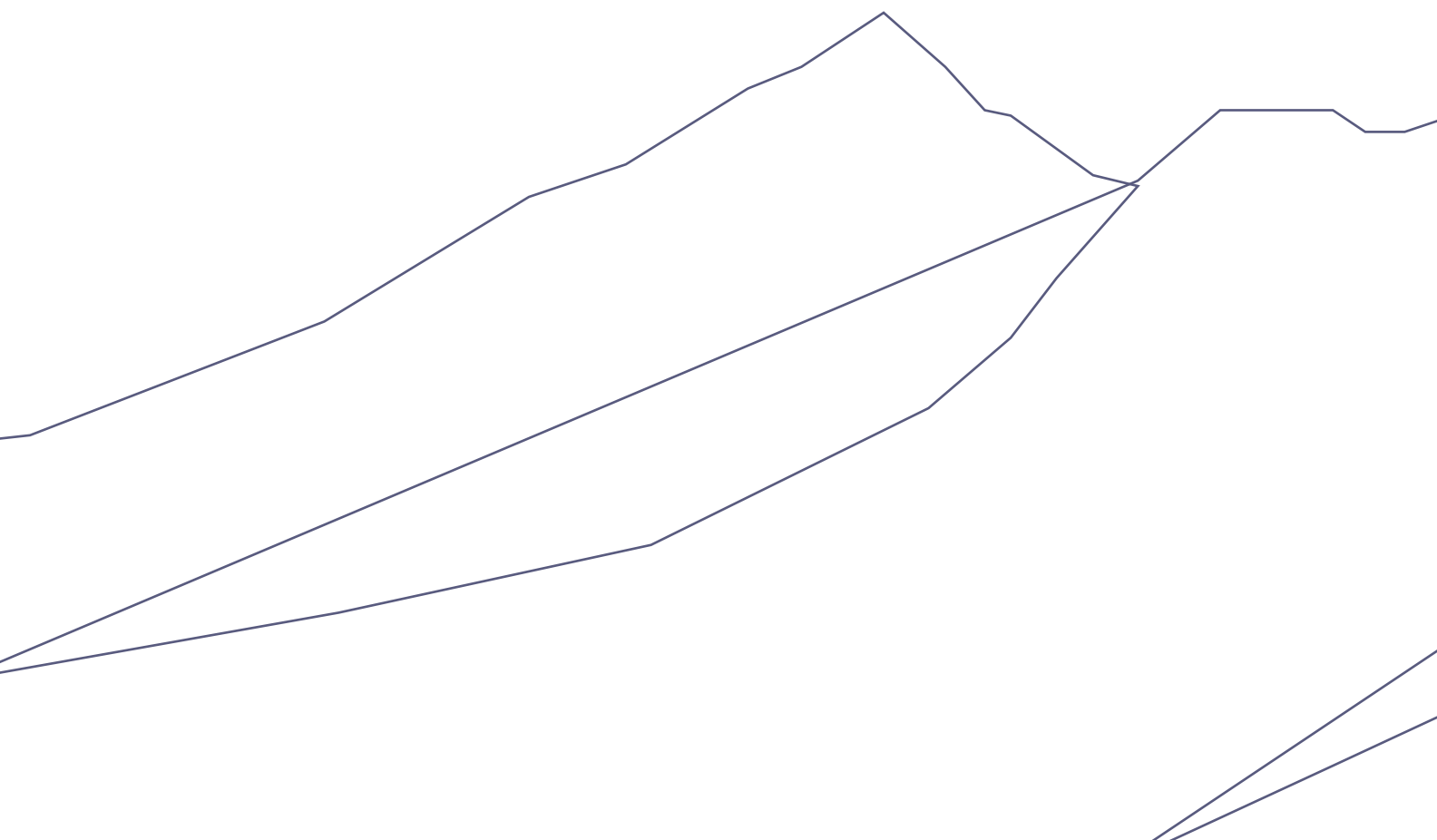


A variety of furniture options for different users

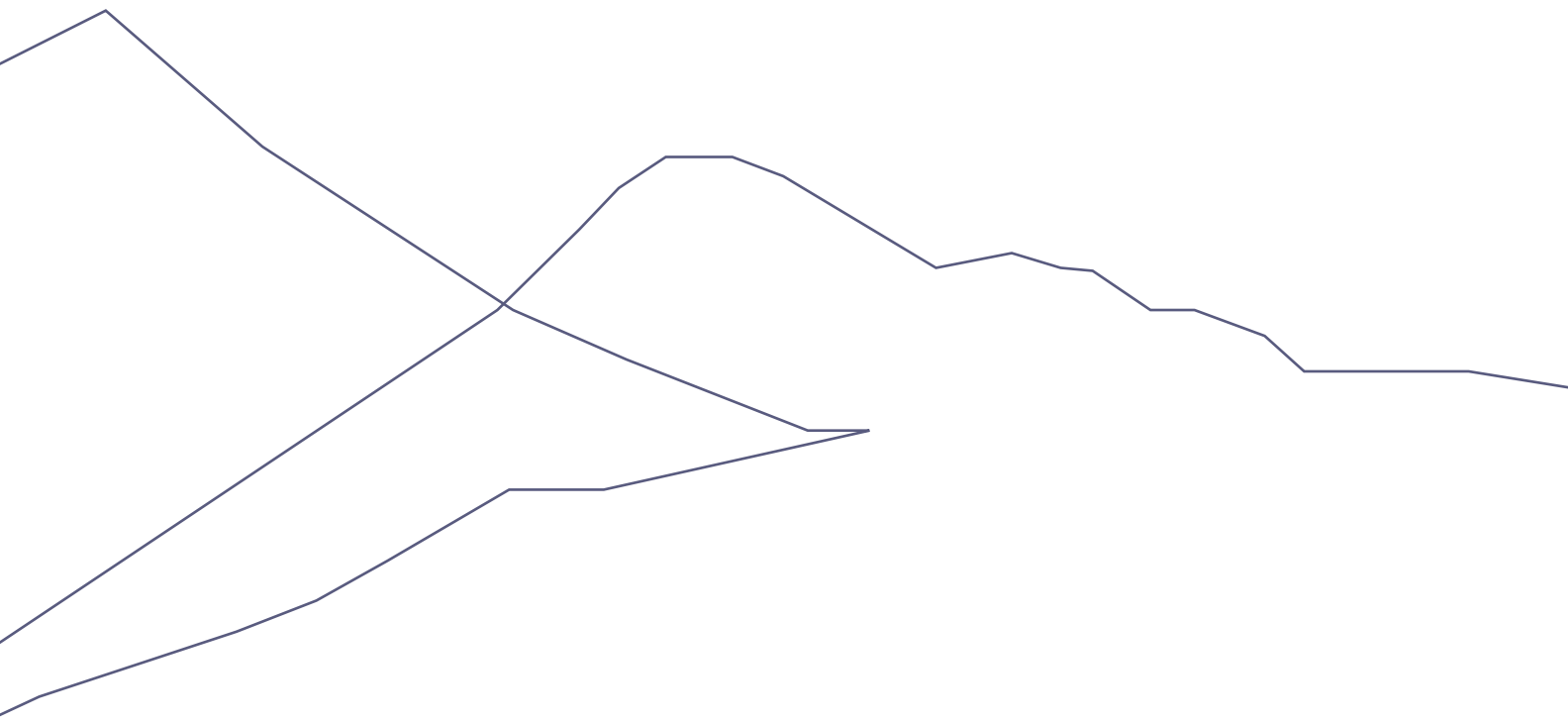


Spaces that can be both social and focused

02



Implementation Plan



NAU Campus Vision Plan

REPLACEMENT BUILDINGS

- 1 Social and Behavioral Sciences Replacement Building
- 2 Interdisciplinary Science and Academic Complex (ISAAC)
- 3 Nursing Replacement Building
- 4 Arts and Letters Replacement Building

NET-NEW BUILDINGS

- 5 South Campus Apartment Complex
- 6 South Campus Community, Recreation, and Wellness Building
- 7 Milton Community Building
- 8 Student Pavilion Building
- 9 Northend Mixed-Use Complex
- 10 Central Campus Apartment Complex
- 11 Multi-purpose Arena

ADDITIONS

- 12 Cline Library Addition
- 13 Du Bois Student Union Addition
- 14 Native American Cultural Center Addition
- 15 Facility Services Addition
- 16 Engineering Addition (location TBD)

PARKING STRUCTURES

- 17 North Campus + Cline Library Parking Structure
- 18 South Campus Parking Structure + Transportation Center
- 19 South Campus Residential Parking Structure

BUILDING AND SYSTEMS RENOVATIONS

- 20 Physical Sciences (19)
- 21 Institute For Human Development (27A)
- 22 University Union (30A-C)
- 23 Cline Library (28)
- 24 Adel Mathematics (26)
- 25 Gammage (01)
- 26 Student and Academic Services (60)
- 27 J. Lawrence Walkup Skydome (73)
- 28 Du Bois Ballroom (64)
- 29 Biological Sciences (21)
- 30 Geology Building (12)
- 31 Raul H. Castro Social and Behavioral Sciences (65)
- 32 University Union Fieldhouse (30)

BUILDING AND SYSTEMS RENOVATIONS (CONTINUED)

- 33 Babbitt Administrative Center (51)
- 34 South Beaver Street School (07A)
- 35 Old Main (10)
- 36 Eastburn Education Center (27)
- 37 Health Professions (66)
- 38 Facility Services (77)
- 39 ROTC and C4P Lab Building (47A)
- 40 Rolle Activity Center (68)
- 41 Bury Hall (08)

INFRASTRUCTURE

- 42 Interconnect North and South Heating Systems
- 43 Conversion of South Campus Plant to Low Temperature Hot Water
- 44 Conversion of North Campus Plant to Low Temperature Hot Water
- 45 Conversion of existing buildings from local heating systems to a centralized heating system (multiple)
- 46 Deep energy retrofits (multiple)
- 47 Woody biomass and/or geothermal conversion project
- 48 Electrify campus commercial kitchens

OPEN SPACE

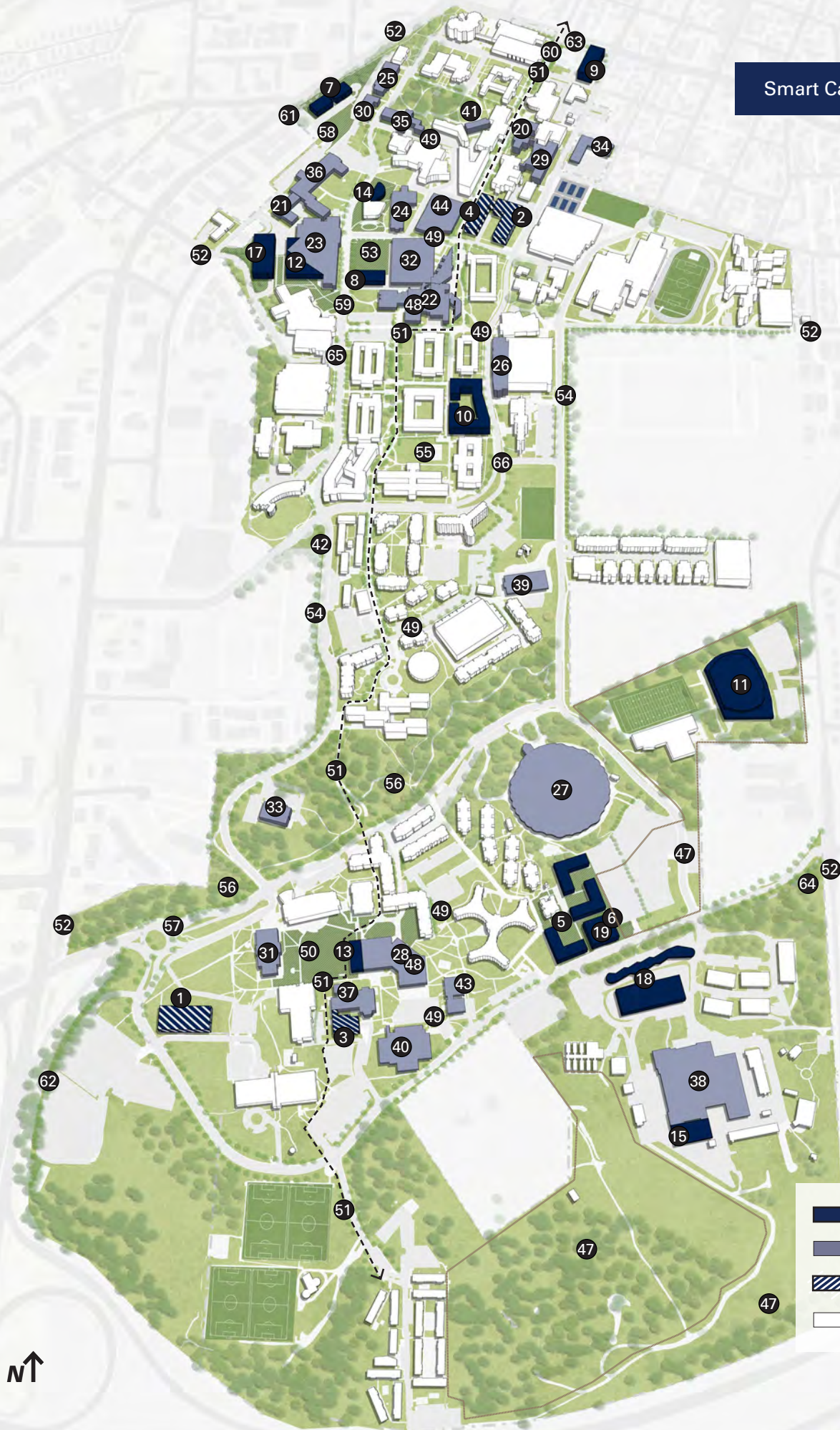
- 49 East West Connections (multiple)
- 50 South Quad Improvements
- 51 Pedway Improvements
- 52 Trails Connections to FUTS
- 53 Library Plaza and Gathering Lawn
- 54 Cemetery Screenings
- 55 Central Quad Improvements
- 56 Sinclair Wash Improvements / Walk of Nations

CIRCULATION

- 57 McConnell Drive Improvements
- 58 Milton Entry and Connection to S. Riordan Ranch Street
- 59 Pedestrianize Knoles Drive
- 60 Pedestrianize Humphrey's Street

EDGE IMPROVEMENTS

- 61 Milton Edge Open Space and Indigenous Welcome Signage
- 62 I-17 Edge Gateway Signage and Landscape
- 63 Bulter Avenue and Humphrey's Street Gateway Signage + Landscape
- 64 Lone Tree Road and Pine Knoll Drive Gateway Signage and Landscape
- 65 Riordan Road and Knoles Drive Gateway Signage and Landscape
- 66 University Drive and San Francisco Street Gateway Signage and Landscape



Project Funding Opportunities

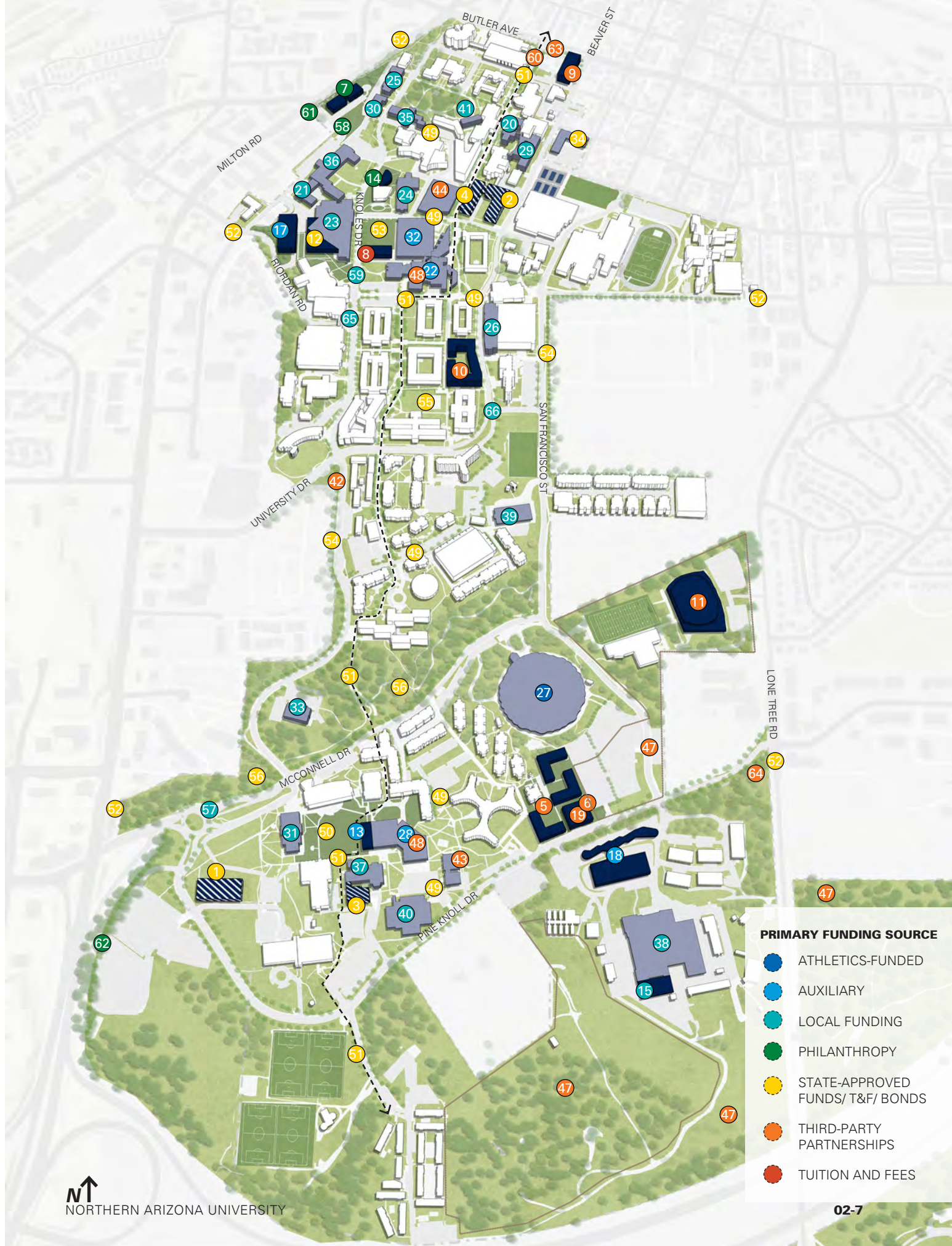
Implementation of the Master Plan will be dependent on the availability of resources. As previously mentioned, the proposed phasing is a framework. However, the intent of the planning process is to remain flexible so that projects may start sooner or later than the phase identified within this Master Plan.

The diagram and table outline the potential primary funding source for each project included in the Master Plan. There are also potential secondary funding sources identified within the table, as most projects are funded through multiple funding streams.

FUNDING SOURCES

- Athletics-funded
- Auxiliary
- Local funding
- Philanthropy
- State appropriated funds / tuition and fees / bonds
- Third-party/ partnerships
- Tuition and fees

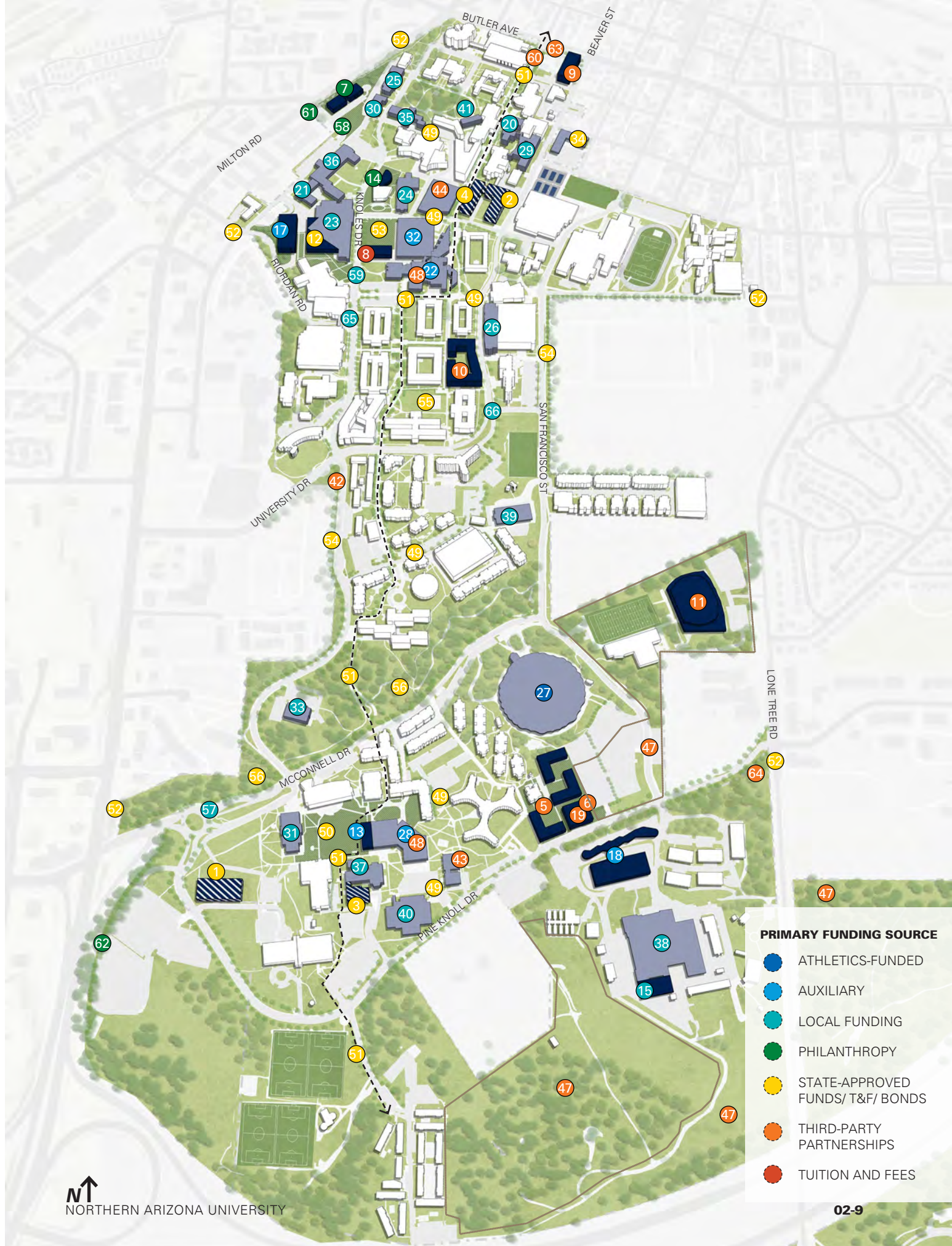
		PRIMARY FUNDING	SECONDARY FUNDING			PRIMARY FUNDING	SECONDARY FUNDING
REPLACEMENT BUILDINGS ////				BUILDING AND SYSTEMS RENOVATIONS			
1	Social and Behavioral Sciences Replacement Building	State appropriated funds / tuition and fees / bonds		20	Physical Sciences (19)	Local funding	
2	Interdisciplinary Science and Academic Complex (ISAAC)	State appropriated funds / tuition and fees / bonds		21	Institute For Human Development (27A)	Local funding	
3	Nursing Replacement Building	State appropriated funds / tuition and fees / bonds		22	University Union (30A-C)	Auxiliary	Third-party/ partnerships
4	Arts and Letters Replacement Building	State appropriated funds / tuition and fees / bonds		23	Cline Library (28)	Local funding	
NET-NEW BUILDINGS				24	Adel Mathematics (26)	Local funding	
5	South Campus Apartment Complex	Third-party/ partnerships		25	Gammage (01)	Local funding	
6	South Campus Community, Recreation, and Wellness Building	Third-party/ partnerships		26	Student and Academic Services (60)	Local funding	
7	Milton Community Building	Philanthropy	Third-party/ partnerships	27	J. Lawrence Walkup Skydome (73)	Athletics-funded	Tuition and fees
8	Student Pavilion Building	Philanthropy	Third-party/ partnerships	28	Du Bois Ballroom (64)	Auxiliary	Third-party/ partnerships
9	Northend Mixed-Use Complex	Third-party/ partnerships		29	Biological Sciences (21)	Local funding	
10	Central Campus Apartment Complex	Third-party/ partnerships		30	Geology Building (12)	Local funding	
11	Multi-purpose Arena	Third-party/ partnerships	Philanthropy	31	Raul H. Castro Social and Behavioral Sciences (65)	Local funding	
ADDITIONS				32	University Union Fieldhouse (30)	Auxiliary	Third-party/ partnerships
12	Cline Library Addition	State appropriated funds / tuition and fees / bonds	Philanthropy	33	Babbitt Administrative Center (51)	Local funding	
13	Du Bois Student Union Addition	Auxiliary	Third-party/ partnerships	34	South Beaver Street School (07A)	State appropriated funds / tuition and fees / bonds	
14	Native American Cultural Center Addition	Philanthropy		35	Old Main (10)	Local funding	
15	Facility Services Addition	Local funding	Tuition and fees	36	Eastburn Education Center (27)	Local funding	
16	Engineering Addition (location TBD)	Philanthropy	Tuition and fees	37	Health Professions (66)	Local funding	
PARKING STRUCTURES				38	Facility Services (77)	Local funding	Tuition and fees
17	North Campus + Cline Library Parking Structure	Auxiliary		39	ROTC and C4P Lab Building (47A)	Local funding	
18	South Campus Parking Structure + Transportation Center	Auxiliary		40	Rolle Activity Center (68)	Local funding	
19	South Campus Residential Parking Structure	Third-party/ partnerships		41	Bury Hall (08)	Local funding	



PRIMARY FUNDING SOURCE

- ATHLETICS-FUNDED
- AUXILIARY
- LOCAL FUNDING
- PHILANTHROPY
- STATE-APPROVED FUNDS/ T&F/ BONDS
- THIRD-PARTY PARTNERSHIPS
- TUITION AND FEES

		PRIMARY FUNDING	SECONDARY FUNDING
DEMOLITIONS (NOT SHOWN ON MAP)			
Babbitt Academic Annex + Building 23A			
Butler Office Building			
Gateway Student Success Center			
Geology Annex			
Huffer Lane Warehouse			
Humphrey's Office Building			
Peterson Hall			
Printing Services			
Roseberry Apartments			
SBS West			
INFRASTRUCTURE			
42 Interconnect North and South Heating Systems			
43 Conversion of South Campus Plant to Low Temperature Hot Water			
44 Conversion of North Campus Plant to Low Temperature Hot Water			
45 Conversion of existing buildings from local heating systems to a centralized heating system (multiple)			
46 Deep energy retrofits (multiple)			
47 Woody biomass and/or geothermal conversion project			
48 Electrify campus commercial kitchens			
OPEN SPACE			
49 East West Connections (multiple)			
50 South Quad Improvements			
51 Pedway Improvements			
52 Trails Connections to FUTS			
53 Library Plaza and Gathering Lawn			
54 Cemetery Screenings			
55 Central Quad Improvements			
56 Sinclair Wash Improvements / Walk of Nations			
CIRCULATION			
57 McConnell Drive Improvements			
58 Milton Entry and Connection to S. Riordan Ranch Street			
59 Pedestrianize Knoles Drive			
60 Pedestrianize Humphrey's Street			
EDGE IMPROVEMENTS			
61 Milton Edge Open Space and Indigenous Welcome Signage			
62 I-17 Edge Gateway Signage and Landscape			
63 Bulter Avenue and Humphrey's Street Gateway Signage + Landscape			
64 Lone Tree Road and Pine Knoll Drive Gateway Signage and Landscape			
65 Riordan Road and Knoles Drive Gateway Signage and Landscape			
66 University Drive and San Francisco Street Gateway Signage + Landscape			



PRIMARY FUNDING SOURCE

- ATHLETICS-FUNDED
- AUXILIARY
- LOCAL FUNDING
- PHILANTHROPY
- STATE-APPROVED FUNDS/ T&F/ BONDS
- THIRD-PARTY PARTNERSHIPS
- TUITION AND FEES

Phase 01 Projects

Phasing was determined after meetings with the steering committee and university leadership and considered many factors, including prioritization, sequencing, swing space needs, cost assumptions, and funding opportunities. The Plan evaluates which buildings can alleviate high levels of deferred maintenance by renovation or replacement versus which buildings are worth re-investment and renovation.

Proposed demolitions consider many factors such as condition, buildings that are well below average (poor or critical), beyond the return on investment, and poor programmatic fit. Buildings that fit some of the previous list and that sit on sites that could increase density are also candidates for demolition.

Renovations were prioritized over demolition and replacement as a means to reduce embodied carbon caused by the need to replace an existing structure. Renovations are critical as NAU continues to address deferred maintenance.

Proposed new buildings were carefully considered. There is minimal space increase for academic and administrative functions. A core tenant of the Plan was no new space added without purpose. The expansion of space is centered around a need for additional study, lounge, wellness, housing, and dining to better support the student experience.

Partnership sites are located at the edges of campus. These sites are nimble but should support ideas that bring community and industry onto campus.

The projects below identify priorities for long-term capital improvements consistent with the timeline of this plan, and are not in priority order.

	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
	Milton Property Demo	Demolition	16,500		
61	Indigenous Welcome Signage	Gateway Improvements			
61	Milton Edge Open Space	Open Space and Landscape			
	Peterson Hall	Demolition	39,439		
2	Interdisciplinary Science and Academic Complex (ISAAC)	New Construction			100,000
41	Bury Hall	Swing Space Renovation		17,470	
34	South Beaver Street School	Renovation		30,271	
	Huffer Lane Facility	Demolition	5,220		
1	Social and Behavioral Sciences	New Construction			108,000
21	Institute of Human Development*	Swing Space Renovation		12,642	
49	E-W Connection - State Trust Land to South Quad	Open Space and Landscape			
50	South Quad Improvements	Open Space and Landscape			
14	Native American Cultural Center	Addition			36,000
22	University Union Dining Services	Major Renovation		127,575	
32	University Union Fieldhouse	Renovation (functional upgrades)		45,000	

TABLE LEGEND

DEMOLITION

OPEN SPACE/
LANDSCAPE

RENOVATION

NEW BUILD/
REPLACEMENT

CIRCULATION

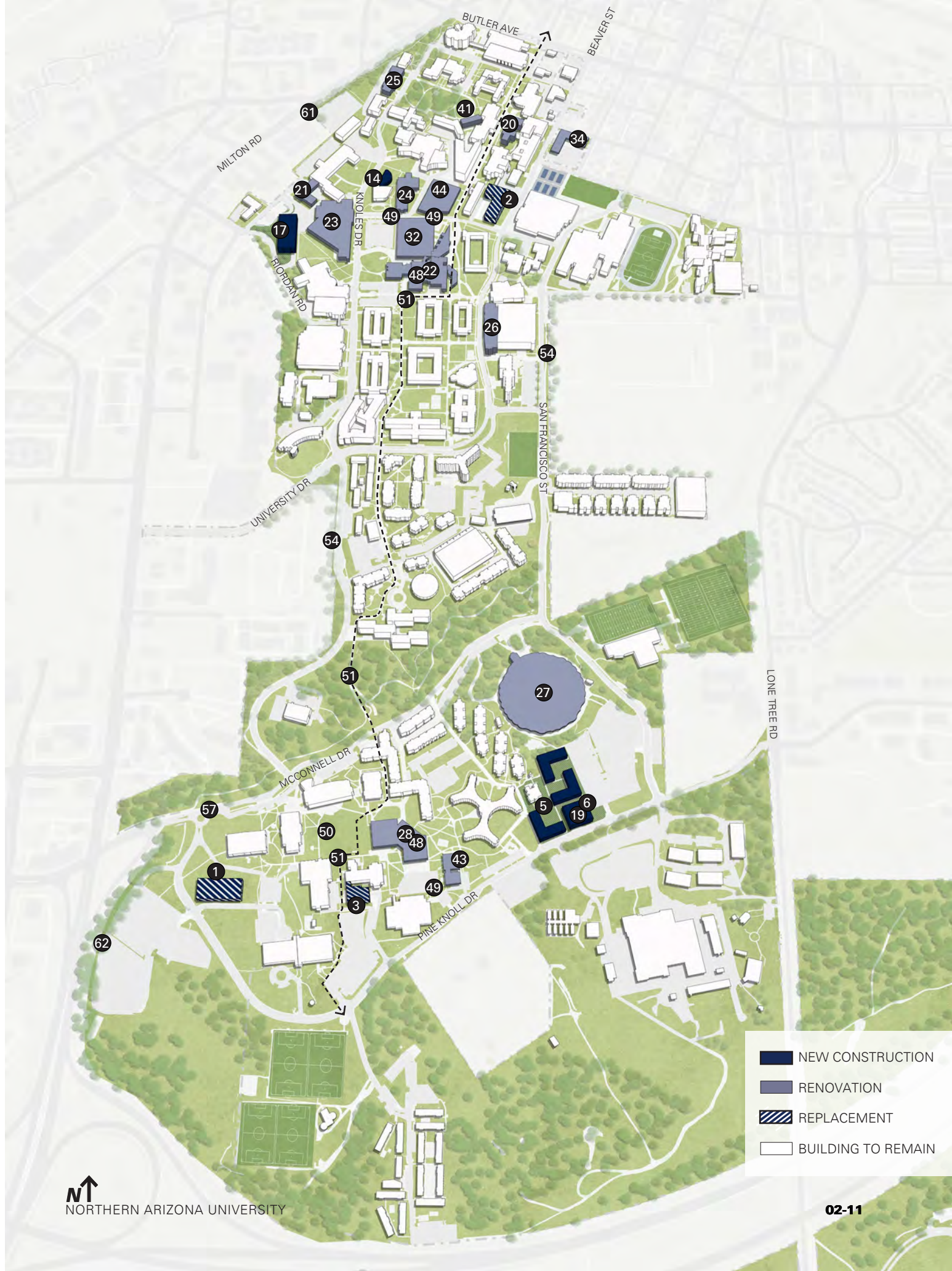
INFRASTRUCTURE

Continued on page 38

* Indicates Secondary Effect Renovation Project

** Historically Sensitive Renovation

+ Does not include new parking structures



- NEW CONSTRUCTION
- RENOVATION
- REPLACEMENT
- BUILDING TO REMAIN

Phase 01 Projects

Continued from page 36

The projects below identify priorities for long-term capital improvements consistent with the timeline of this Plan, and are not in priority order.

	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
22	University Union Food Court	Renovation		24,767	
22	University Union Student Services	Renovation		24,354	
49	E-W Connection - Cline to HLC	Open Space and Landscape			
23	Cline Library	Major Renovation		211,312	
17	Cline Library Parking (400)	Parking Structure			128,000
5	South Campus Apartments	New Construction			204,000
6	South Community + Wellness	New Construction			20,300
19	South Campus Resident (345)	Parking Structure			96,000
24	Adel Mathematics	Major Renovation		43,488	
25	Gammage**	Major Renovation		43,684	
26	Student Academic Services	Interior Renovation		111,915	
27	J. Lawrence Walkup Skydome	Building Upgrades		254,360	
28	Du Bois Ballroom	Interior Renovation		92,946	
54	Cemetery Screening - Vegetation Visual Barrier	Open Space and Landscape			
51	Pedway Landscape Improvements	Open Space and Landscape			
57	McConnell Drive Improvements	Circulation			
62	I-17 Edge Gateway Signage + LS	Gateway Improvements			
3	Nursing Replacement Building	New Construction			34,500
20	Physical Sciences Building	Major Renovation		51,318	
	Babbitt Academic Annex	Demolition	39,033		
42	Interconnect North and South Heating Systems	Infrastructure			
43	Conversion of South Campus Plant to Low Temperature Hot Water	Infrastructure			
44	Conversion of North Campus Plant to Low Temperature Hot Water	Infrastructure			
45	Conversion of buildings from local heating systems to a centralized heating system	Infrastructure			
46	Deep Energy Retrofits by building	Infrastructure			
48	Electrify On Campus Commercial Kitchens	Infrastructure			
Totals			(100,192) GSF	1,091,102 GSF	+ 466,800* GSF

TABLE LEGEND

DEMOLITION

OPEN SPACE/
LANDSCAPE

RENOVATION

NEW BUILD/
REPLACEMENT

CIRCULATION

INFRASTRUCTURE

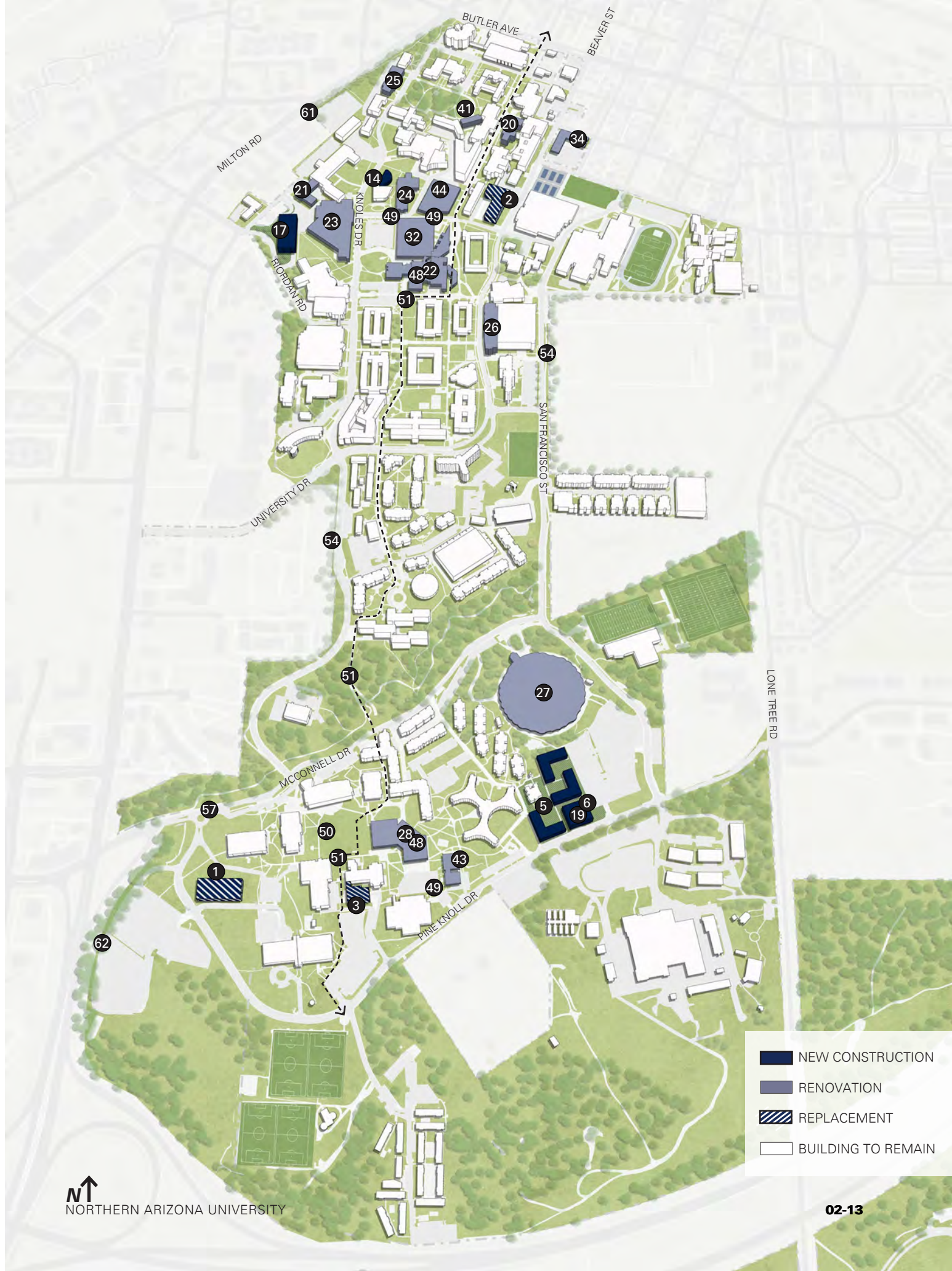
Phase 01 Total Project Costs: \$846,643,000

Cost Estimates are total project cost, based on 2023 dollars (no escalation), and based on rough order of magnitude costs per square foot.

* Indicates Secondary Effect Renovation Project

** Historically Sensitive Renovation

* Does not include new parking structures



- NEW CONSTRUCTION
- RENOVATION
- REPLACEMENT
- BUILDING TO REMAIN

Phase 01 Projects

Interdisciplinary Sciences and Academic Complex (ISAAC)

Bury Hall Renovation: As an enabling project for ISAAC (Phase 01) and Arts and Humanities Building (Phase 02), and a swing space resource for future renovation projects such as Adel Mathematics, Bury Hall is the ideal candidate – offices, conference rooms, meeting rooms, and lounge spaces.

The building currently has over \$2M in deferred maintenance and requires the following system updates:

Project Information:

- *Project Size: 30,271 GSF*
- *Building Program: Swing Space for Classrooms*
- *Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$9.8M*
- *Deferred Maintenance Impacts: Resolves \$2.4M*

South Beaver Street School Renovation: The second enabling program for ISAAC and Arts and Humanities is renovating the South Beaver School. The renovation of the building is focused on creating a hub of classrooms that can be utilized as swing spaces as buildings are renovated over time. The existing gymnasium will be converted into four (4) additional classrooms creating twelve (12) classrooms total.

Part of Flagstaff Unified School District (FUSD), South Beaver Elementary School was an elementary school up until its closure in 2010. The school was leased, and later purchased, by Northern Arizona University (NAU) and is now used for the intensive English program for non-native English speakers.

The building was a former segregated school, serving Flagstaff's Southside's Hispanic community, and therefore provides historical significance to the campus and community alike. The building is on the National Register of Historic Places, and any renovation must follow guidelines set forth by the State Historic Preservation Office (SHPO). In the short-term, it is advisable for the university to focus on the interior renovation of the building to add classrooms, and in future phases focus on the restoration of the building's exterior.

There is an opportunity for exterior work to create a welcoming gateway into campus adjacent to the historic neighborhood through enhanced landscape, pedestrian pathways, and signage.

The building has over \$2M in deferred maintenance and requires the following system updates (it is also important to note that the building is not connected to campus-wide infrastructure):

Project Information:

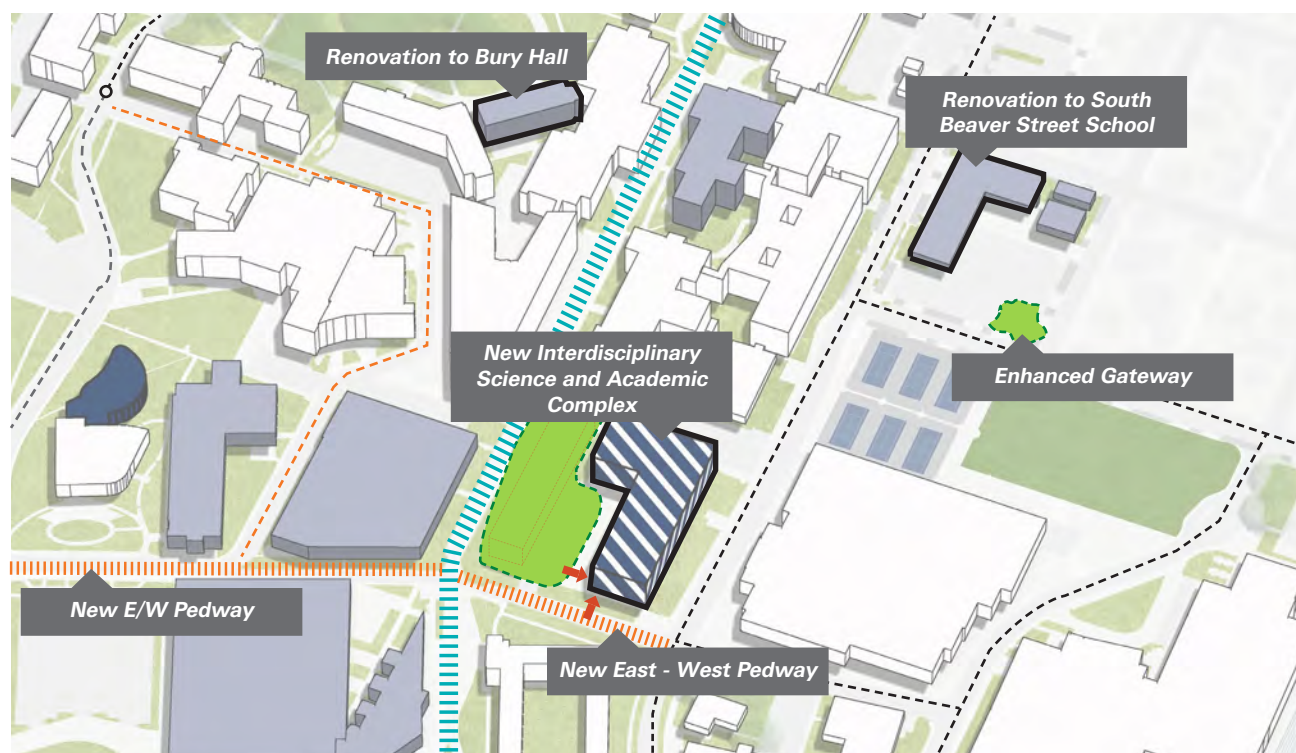
- *Project Size: 17,470 GSF*
- *Building Program: Swing Space for Workspace (Offices, Meeting and Conference Rooms, Lounges)*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$27.4M*
- *Deferred Maintenance Impacts: Resolves \$2.8M*

Demolish Peterson Hall: The final enabling project to make way for the new ISAAC building is the demolition of Peterson Hall. The building is well beyond its useful life and is primarily empty of programs. The building has \$3M in deferred maintenance, which would be eliminated with the demolition of the building.

Project Information:

- *Project Size: Reduction of 39,439 GSF*
- *Building Program: n/a*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$395K*
- *Deferred Maintenance Impacts: Removes \$3M*

- VEHICULAR CIRCULATION
- - - - - SERVICE AND EMERGENCY
- ENHANCED GREENSPACE
- ||||| IMPROVED EAST-WEST CONNECTIONS
- ||||| PEDWAY IMPROVEMENTS



Build ISAAC Building: The Interdisciplinary Science and Academic Complex, or ISAAC, is a new academic replacement building that will house a consolidated School of Earth and Sustainability (SES) and interdisciplinary science-based research. The building is 102,000 GSF over four (4) stories.

The School of Earth and Sustainability is currently spread across ten (10) buildings. The opportunity to consolidate the school into a single building will eliminate current redundancies and create a sense of community for faculty, staff, and students that is missing today. The academic and research programs are varied – from programs that focus on the policy of climate programs to geology programs that require large rocks. This variety will require a mix of space types, and with the ability to be under one roof, the programming of the building should allow for inter-school collaboration opportunities.

The research space should include specialized research labs from across north campus buildings that require specialized space as well as shelled lab space to recruit high-profile research to NAU. Where possible, putting research on display will showcase the work being done by faculty researchers and students. Examples include: remote sensor instrumentation, computer science and informatics, adaptive central western landscapes, and other centers of excellences that involve interdisciplinary work.

The building should host a variety of wet and dry labs that are flexible and adaptable to be modified over time and focus on opportunities for collaborative spaces, such as shared working spaces, meeting spaces with the ability for both in-person and virtual collaboration, and student gathering and study spaces. The research pods in the Applied Research and Development building are ideal modular spaces with lab space for the principal investigator, and meeting/touchdown space for the research team.

In addition to the SES and research space, the building will also house several teaching labs that can be utilized during renovations to the Biological Sciences and Physical Sciences buildings.

Building Program:

• <i>School of Earth and Sustainability</i>	<i>30,000 asf</i>
• <i>Research Space</i>	<i>20,000 asf</i>
• <i>Teaching Labs (9)</i>	<i>7,200 asf</i>
• <u><i>Student Gathering Space</i></u>	<u><i>4,000 asf</i></u>
<i>Total asf:</i>	<i>61,200 asf</i>
<i>60% efficiency – 102,000 GSF</i>	

Project Information:

- *Project Size: 102,000 GSF (4 stories)*
- *Building Program: School of Earth and Sustainability, Research, Teaching Labs*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$94.9M*
- *Deferred Maintenance Impacts: n/a*

Secondary Impacts:

- *Allows for full renovations of Geology and Geology Annex*
- *Opens up pockets of space in Biological Sciences (1,653sf); Physical Sciences (7,984sf); and Science Laboratory (1,895sf) for swing or program expansion.*

Renovate Physical Sciences Building: Once the new ISAAC Building is complete, NAU will renovate several buildings to create higher quality and functioning space. The first is the Physical Sciences Building, which is planned to become the anchor for Physics, Astronomy, and Planetary Science. The building today is in good condition. However, several specialized research spaces and SES programs will be vacated in the ISAAC building, and there is an opportunity for consolidation of academic programs, functional building updates to best support high-level science education, and completion of the energy retrofits and building system updates in alignment with sustainability goals.

Programs planned to consolidate into a renovated Physical Sciences Building are:

- *Ashurst – 832 asf*
- *Biological Sciences – 783 asf*
- *Peterson – 3,395 asf*
- *Physical Sciences – 20,073 asf*
- *Science and Health Building – 1,769 asf*

While programs in Science Annex, Atmospheric Observatory, and Wettaw will remain in place.

Project Information:

- *Project Size: 51,318 GSF*
- *Building Program: Physics, Astronomy, and Planetary Science, Teaching Labs, Classrooms*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$41.7M*
- *Deferred Maintenance Impacts: Resolves \$1.4M*

Nursing Building

Build New Nursing Building: The current Nursing Building is in poor condition and accounts for \$2.4M in deferred maintenance costs. The existing building is not functionally adequate for the Nursing program.

This replacement building will become the new home of the School of Nursing and will connect to the Health Professions Building to create a Health and Human Science Complex that encourages interdisciplinary learning and research through shared spaces and amenities.

The new Nursing Building will house the programs from the existing School of Nursing Building, as well as programs relocated and consolidated from the SEC Building. The community clinics in the Health Professions Building (dental hygiene, physical therapy, and speech-language-hearing) will be relocated into the new Nursing Building. They should be programmed and designed to be patient-centered, with intuitive wayfinding, adequate patient space, and convenient parking. The department support space will remain in the Health Professions Building, but with the new physical connection between the buildings, the flow between work space and clinic space will be accounted for.

A Simulation Lab was recently (2023) opened in the lower level of Du Bois Student Union and may not be cost-effective to relocate in the short-term, but should be considered relocating to Health Professions during the Phase 03 Renovation.

Project Information:

- *Project Size: 34,500 GSF (3 stories)*
- *Building Program: College of Nursing*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$32.3M*
- *Deferred Maintenance Impacts: Removes \$2.4M*

Secondary Impacts:

- *Demolition of Existing Nursing Building*
- *Renovation of 5,400 sf of the Student and Academic Services Building, 4th Floor.*

- VEHICULAR CIRCULATION
- - - - - SERVICE AND EMERGENCY
- ENHANCED GREENSPACE
- ||||||| IMPROVED EAST-WEST CONNECTIONS
- ||||||| PEDWAY IMPROVEMENTS

Social and Behavioral Sciences

New Social and Behavioral Sciences West

Building: The current SBS West Building is in poor condition and accounts for \$9.6M in deferred maintenance costs.

A replacement building will be built to relocate programs within Social and Behavioral Sciences into a new, modern, and purpose-built building. Programs from the existing SBS West Building (45,200 sf), Student and Academic Services (12,200 sf), Institute of Human Development (8,450 sf), Health and Learning Center (1,880), and Eastburn Education Center (1,870 sf) will be housed within the new four-story structure.

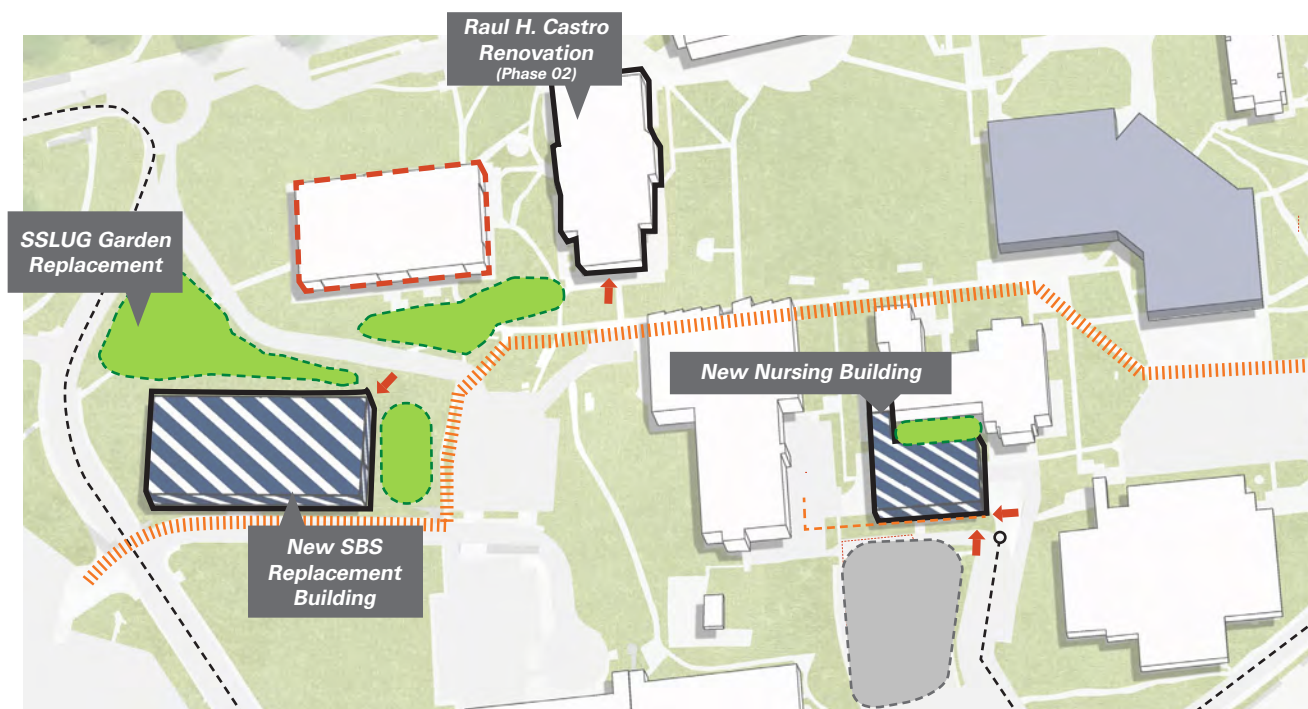
The location of SBS as an entry point to the community could be a useful way to both showcase and engage community partnerships. With this reimagined facility, and a renovation to neighboring Castro, there is an opportunity to showcase current work, expand faculty collaborations around research/teaching and provide community space for collaboration.

Project Information:

- *Project Size: 108,000 GSF, 4 stories*
- *Building Program: Consolidate Social and Behavioral Sciences programs*
- *Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$87.8M*
- *Deferred Maintenance Impacts: Resolves \$9.66M*

Secondary Impacts:

- *Demolition of SBS West and Huffer Lane Facility*
- *Renovation of 12,200 sf of the Student and Academic Services Building, 3rd Floor.*
- *Renovation of 8,450 sf within Institute of Human Development*



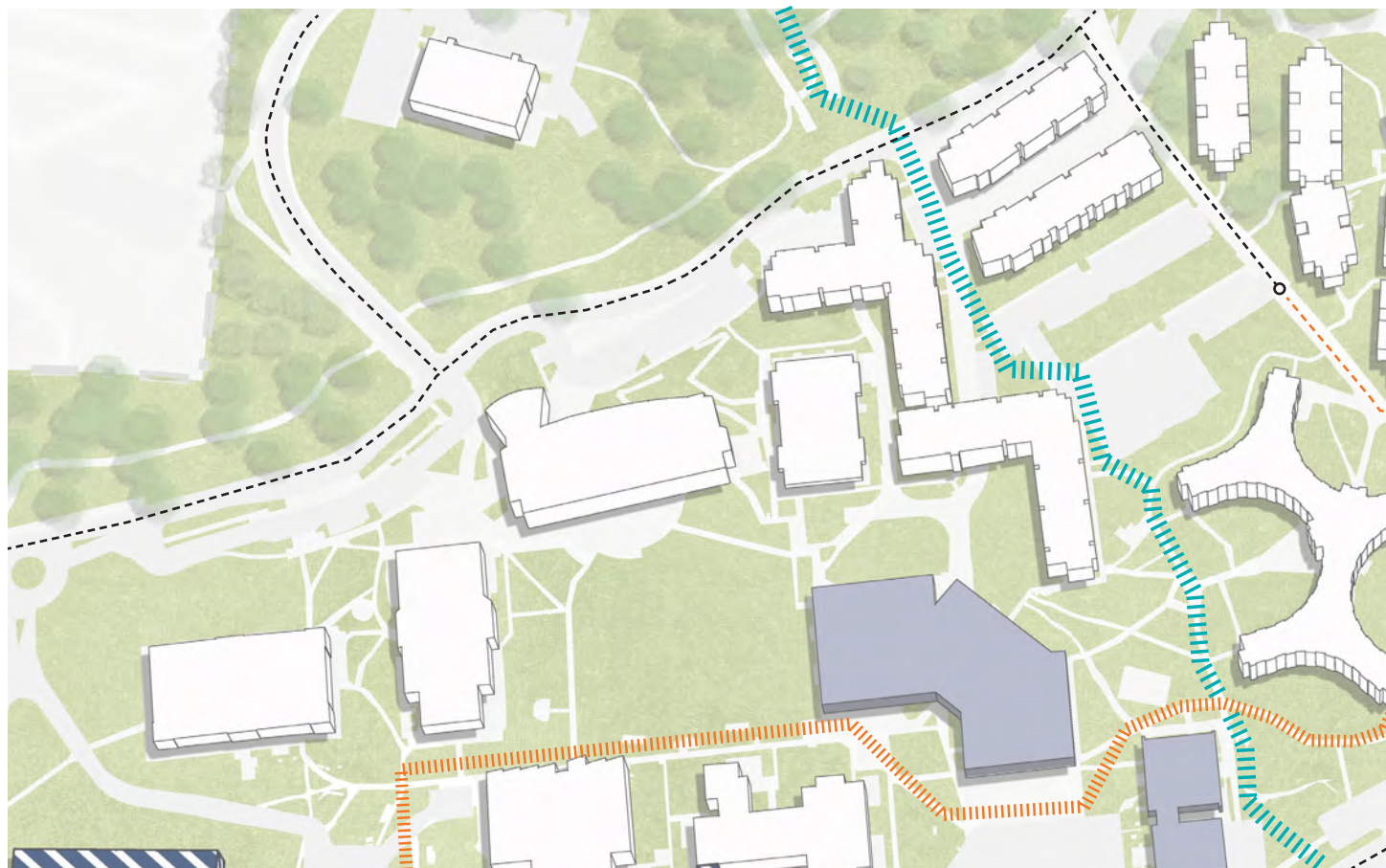
South Campus Housing Village

Apartment Complex: The need for quality and affordable campus housing to handle the current demand for upper-division students, makes housing expansions and modernization strategies essential. The vision for the South Campus Housing Village is to establish a new residential community of approximately 500 students. The driver to complete the new South Campus Housing Village is to reduce the current demand for upper-division students wanting to live in high-quality on-campus housing.

This project will build three new housing buildings with approximately 500 new beds in total where parking lot P66A currently stands. The new housing buildings will incorporate active lounges to support student experiences, passive lounges for studying, and shared kitchens to encourage community and

student services. The building massing will create courtyards that offer students outdoor social areas. The housing community should support connectivity between the courtyards, not create socially isolated spaces. In addition, the exterior gathering and social environments should be coordinated with social spaces on the lower levels of the buildings.

To facilitate safer circulation and connect housing with other south campus functions, a new east-west connection is critical to complete the new housing development.



Project Information:

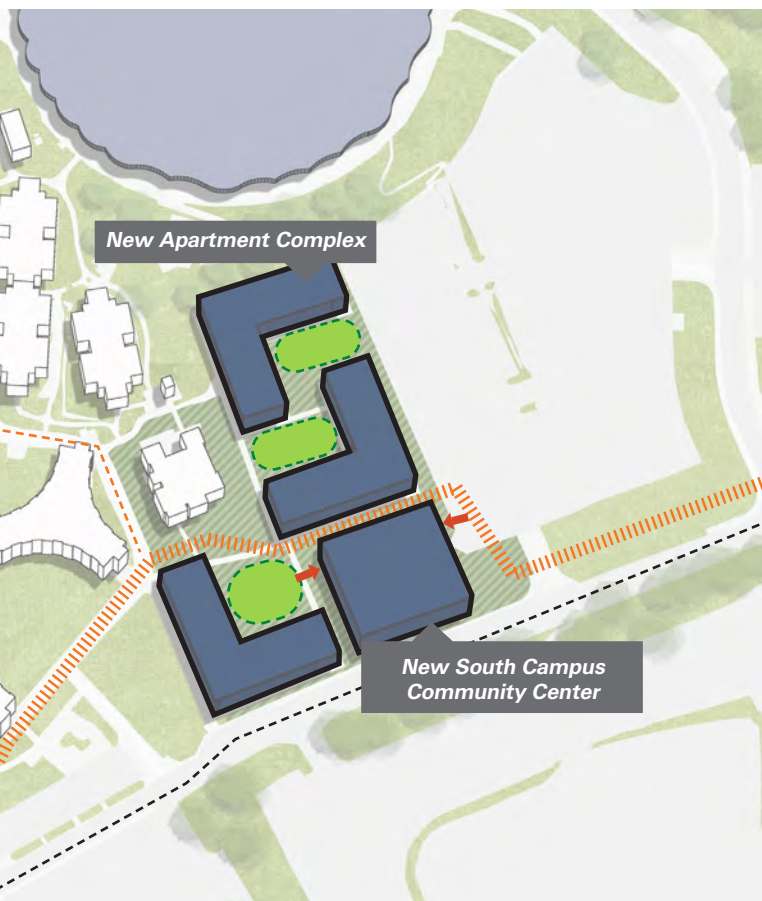
- *Project Size: 204,000 GSF total, 4 stories each building (500 Apartment Beds, planned for 400sf/bed)*
- *Building Program: Undergraduate Student Housing*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$128M*
- *Deferred Maintenance Impacts: n/a*

South Campus Community Building and Parking

Structure: A new South Campus Community Building will provide much-needed amenity space for south campus residents, such as fitness spaces, meeting rooms, study spaces, and space for services and support. A new parking structure paired with the South Campus Community Building replaces 200 spaces and provides parking for 40% of the residents within the new housing community.

Project Information:

- *Project Size: 31,200 GSF total, 3 stories program; 96,000 GSF, 4 stories parking (275 spaces)*
- *Building Program: Fitness Center, Student Meeting Space, Study Space, Services, and Parking*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$28.1M*
- *Deferred Maintenance Impacts: n/a*



Additions

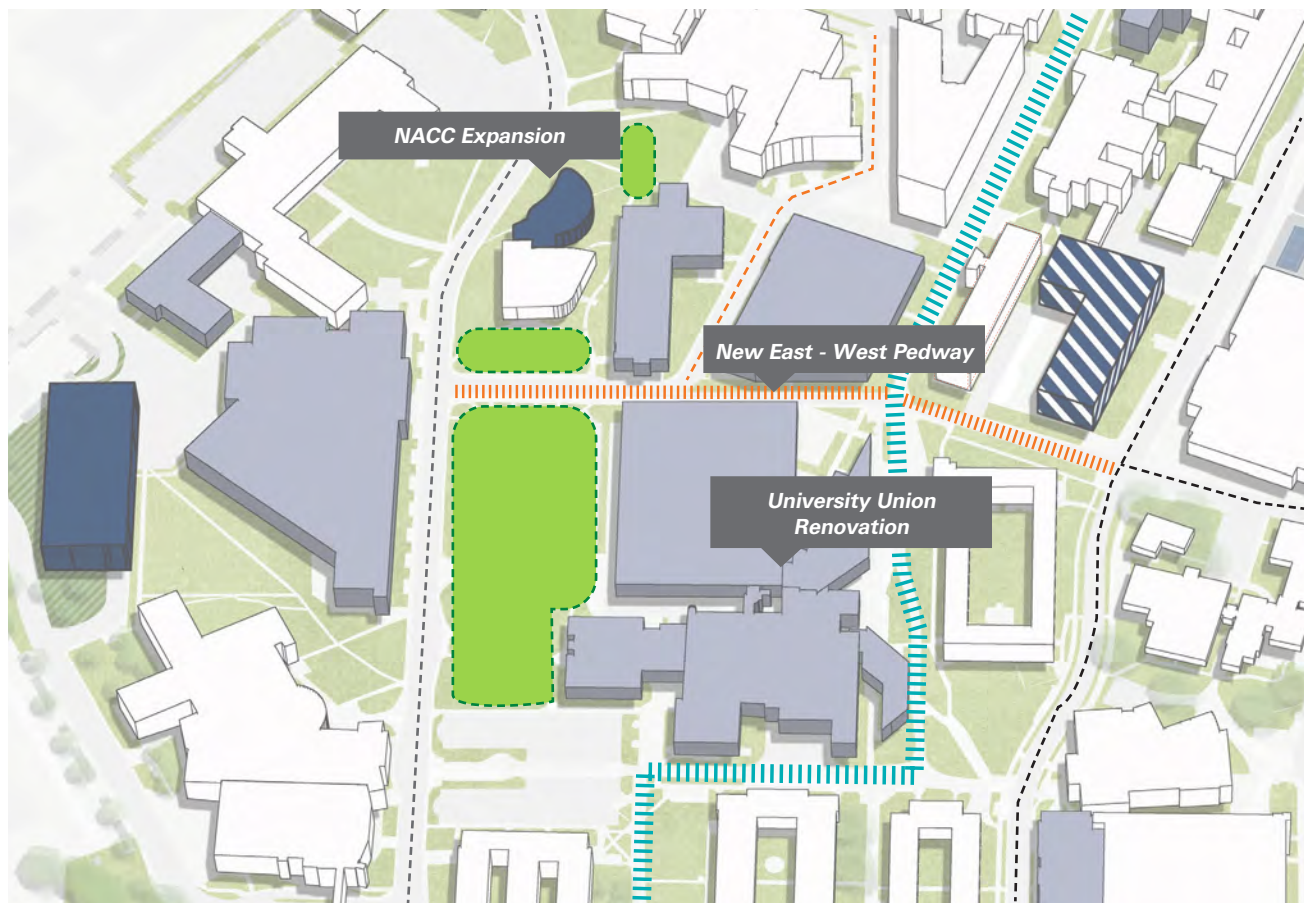
Native American Cultural Center Expansion:

Building upon the northside of the existing Native American Cultural Center (NACC), a new three-story addition will house offices, conference rooms, and classrooms for the Institute for Tribal Environmental Professionals (ITEP), the Institute for Native-serving Educators (INE), and the Tribal Leadership Initiative (TLI). A secondary project to the existing NACC will address the high energy use within the existing building.

Programming of the NACC will extend into a new proposed lawn space where lot P16 currently sits. This lawn will provide a four-season space for ceremonies/teaching and surround the space with an Indigenous medicine garden as well as space to host Pow Wows and/or large gatherings.

Project Information:

- *Project Size: 36,000 GSF total, 3 stories*
- *Building Program: ITEP, INE, and TLI*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$29.3M*
- *Deferred Maintenance Impacts: n/a*



Renovations

University Union Master Plan and Interior

Renovation: The University Union is made up of several buildings – the Dining Services building, (constructed in 1986 and expanded in both 1989 and 2014), the Fieldhouse (constructed in 1965), and the “Wedge,” which expanded dining and study space in 2008. In total, the complex is over 200,000 square feet. The University Union is currently very transactional (limited study and lounge space and no dedicated student organization space) and needs to become more student oriented in the future.

As a next step, the Master Plan recommends a future comprehensive visioning study for the University Union. As directed by a more detailed study, the university should consider a comprehensive renovation of the University Union, including the following key improvements and new program elements:

- The Hot Spot renovation (improve outside queuing area/access, seating arrangements and server, expand kitchen and other back-of the house facilities),

- Provide student-oriented spaces such as dedicated lounges and study areas, beyond food area seating,
- Evaluate relocation of some administrative/ student support functions out of the University Union and replace them with informal social gathering spaces,
- Provide meeting spaces to satisfy the unmet demand of various student clubs and organizations. Consider E-Gaming in the University Union.

While the campus dining demand is currently satisfied with respect to the capacity, distribution and variety of offerings (assuming future renovation of The Hot Spot), some additional offerings should be considered based on the projected growth of on-campus student housing. As the recommendations for new housing include apartment-style units with full kitchens, the additional dining should be delivered in a retail configuration.

Fieldhouse: As a phase 01 project, functional updates to the Fieldhouse should be made to make the building functional for large events, including adding additional restrooms, addressing acoustics, and modifying egress. A full building renovation and the potential to add either a multi-use sporting floor and/or an indoor ice rink is proposed in a later phase.

Project Information:

- *Project Size:* 200,000 GSF total, 1-2 stories
- *Building Program:* Student Space, Dining, Auxiliary Services
- *Timeline Horizon:* Phase 01, Short-term
- *Cost Estimates (Total Project Costs in 2023 dollars):* \$61.2M
- *Deferred Maintenance Impacts:* \$8.6M

- VEHICULAR CIRCULATION
- SERVICE AND EMERGENCY
- ENHANCED GREENSPACE
- IMPROVED EAST-WEST CONNECTIONS
- PEDWAY IMPROVEMENTS

Adel Mathematics Renovations: Adel requires a major renovation to best serve students and faculty. The current condition of the building is poor and requires major system updates from a deferred maintenance standpoint. As with other renovations to academic buildings, the deferred maintenance and energy retrofits should be paired with modernization and optimization of space within the building.

The 20,000+ sf Lumberjack Math Center is currently located in the Student and Academic Services Building. This program is planned to remain in place for the long-term.

Project Information:

- *Project Size: 43,488 GSF total, 2 stories*
- *Building Program: Mathematics*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$35.3M*
- *Deferred Maintenance Impacts: Resolves \$4.2M*

Gammage Renovation: As a historic structure on the campus, a thoughtful renovation to Gammage is a critical component to maintain the history and nostalgia of NAU's north campus. The building is currently home to Financial Aid and several administrative programs. With the relocation of Financial Aid to the Student and Academic Services Building, Gammage will become home to NAU leadership functions. The building is on the National Register of Historic Places, and any renovation must follow guidelines set forth by the State Historic Preservation Office (SHPO).

Project Information:

- *Project Size: 43,684 GSF total, 2 stories*
- *Building Program: Administration and Leadership*
- *Timeline Horizon: Phase 01, Short-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$39.5M*
- *Deferred Maintenance Impacts: Resolves \$2.6M*

Cline Library: A phased approach to Cline Library is proposed. This option renovates the existing facility in phase 01 and adds building expansion in phase 02. A primary benefit of this option is the ability to create a phased implementation strategy that can be tailored to available capital funding.

Phase 01 is an interior renovation that prioritizes functional upgrades and student space to create a new and expanded heart to the library. Cline Library is planned to transform to provide more group study, collaboration, and engagement spaces in order to create an active and vibrant space. The library will continue to evaluate the demand for print collections and evolve the physical footprint of facilities to address emerging teaching, learning, and research needs. This renovation will address \$15M in deferred maintenance.

It is important to recognize that Phase 02 of the Cline Library work is the strategic demolition of the 1960's and 1980's wings to make way for an expansion, thus investment into those areas should be strategic and well-considered with the timeline of the Phase 02 project.

Cost - \$36.8M

Skydome: Several projects have been identified for Skydome improvements, including updating locker rooms for football and women's basketball, updating lights, improving the concessions experience, and improving egress/circulation throughout the building. This project will be phased across phase 01 and phase 02.

Cost - \$10M

Du Bois Ballroom: The Ballroom located in Du Bois Union will be renovated into a modern ballroom space for large campus events. The space requires updated technology, lighting, finishes, and furniture.

Cost - \$2.8M

Open Space Projects:

Pedway Improvements: Along the Pedway, a toolkit for open spaces provides a new role for the pathway as a gathering space. The project seeks to provide flexible, various-sized outdoor spaces that will encourage social gatherings and informal outdoor learning environments. As further discussed in the Indigenous Planning Chapter, the Pedway is an opportunity for Indigenous designs to be applied on campus. The main elements include the proposed Sovereignty Path with cultural signifiers, such as native vegetation, cultural and language opportunities, artwork, and a Walk of Nations. These upgrades along the Pedway connect the Native American Cultural Center and the Hogan.

East-West Connections: The proposed east-west connections are critical to functionality and the pedestrian experience. In phase 01, the following east-west connections should be completed:

- Lot P62 to South Quad
- Cline Library to Health and Learning Center



PROPOSED PEDWAY IMPROVEMENTS

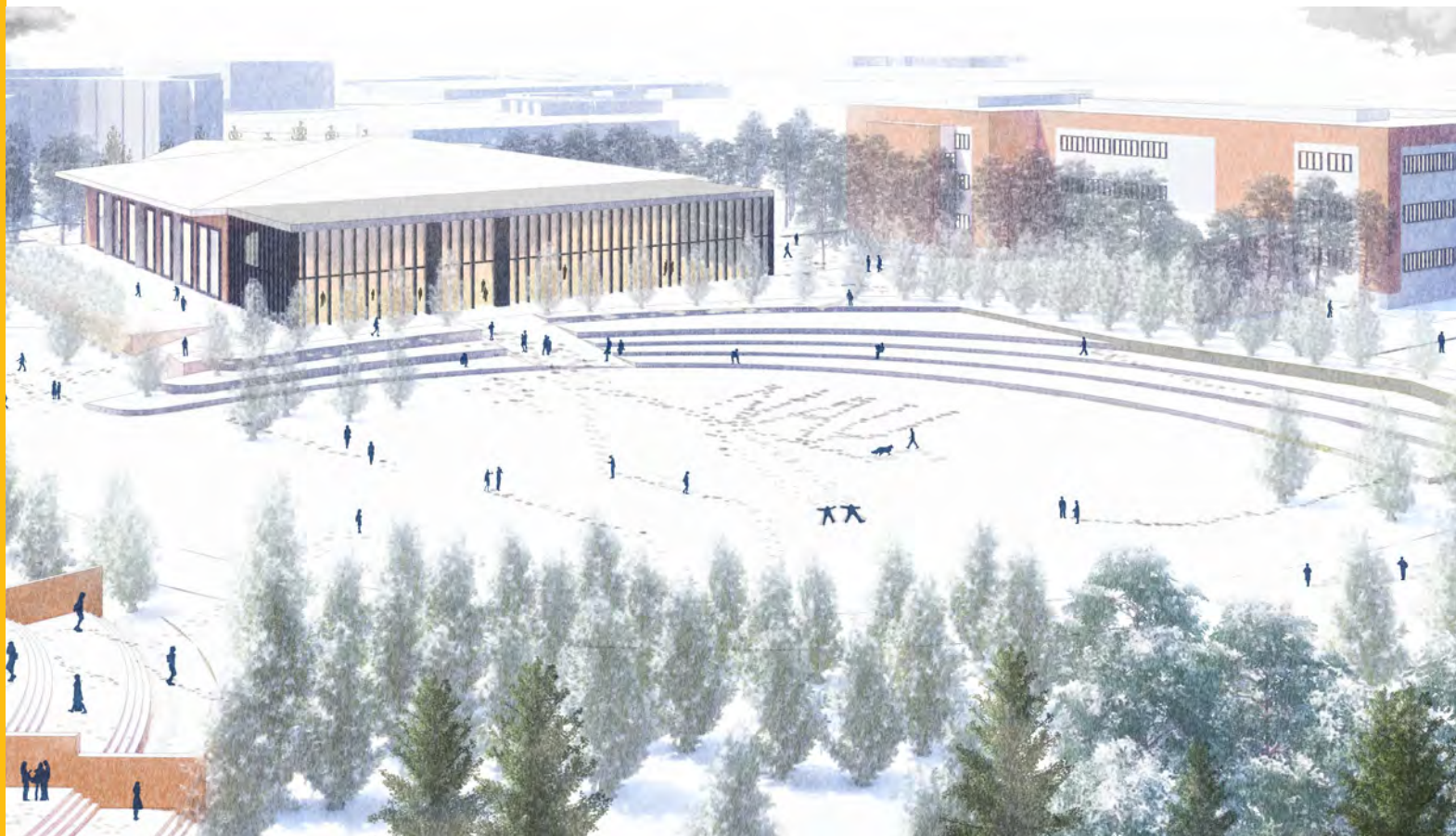
South Quad Improvements: The vision of the South Quad is to become a vibrant, student-centered amenity further activating south campus. In alignment with the 2015 Landscape Master Plan, the objectives remain in place:

1. Improve pedestrian, service and emergency circulation.
2. Create a venue for large community events, concerts, and festivals.
3. Capitalize on the incredible mountain views with new seating areas, overlooks and amenities.
4. Improve on the aesthetics and design of the space.

The design for this quadrangle is centered on a few key concepts that give it form, visual quality and adaptability. The south and east edges of the space offer a vista to the San Francisco Peaks. These

edges are composed to capitalize on the views and create an environment that supports events, social gatherings, or just simply sitting and enjoying the view. The second concept is the quad's capacity to host a wide array of events, concerts, and game day activities. Design features include terraced lawn steps for passive recreation, amphitheater-style seating, a spruce garden that builds on the existing stand of mature trees, and improved service and emergency vehicle access. The project also provides the opportunity for sustainability efforts to be put on display, through native plantings, bioswales, rain collection, and limitations of turf grass use.

Cemetery Screening: Through a vegetative barrier, the two adjacent cemeteries will be screened visually. This screening will also prevent students walking through the cemetery.



PROPOSED SOUTH QUAD IN WINTER

Circulation Projects:

Cline Library Parking Structure: As an enabling project to remove interior surface lots on north campus, this new four-level parking structure replaces approximately 400 parking spaces. It will primarily serve those entering from the west, either using Riordan Road, or Riordan Ranch Road. Surface parking east of the parking structure will be converted to plaza space adjacent to the Cline Library.

Cost: \$11.5M

McConnell Drive Improvements: Identified in the Campus Traffic and Circulation Study (2013), a roundabout provides traffic calming benefits and efficient movement through the busy intersection. As a secondary option, a T-intersection would include a traffic signal to control traffic for pedestrian crossings. “Barn dance” signal timing may be considered (includes a pedestrian phase in which all pedestrians cross both legs of the intersection simultaneously). A detailed traffic operations analysis is required. Other suggested ideas are a pedestrian tunnel or roadway bridge under

McConnell to eliminate at-grade crossings. The major elements of the improvements are:

- Realign McConnell Road to the south.
- Construct a single lane roundabout at the intersection of McConnell Dr. and Pine Knoll Dr.
- Improve Behavioral Sciences fire access road for pedestrians.
- Bus stop / pullout improvements.

The 2022 Traffic Impact Analysis determined the roundabout at McConnell and Pine Knoll to require double lane with slip lanes for rights onto McConnell and Pine Knoll. The roundabout would impact the existing entry sign. A raised median along McConnell was necessary to control Pedestrian crossings. McConnell also shifts significantly to the south to minimize the impacts on the FEMA regulated Floodway, Sinclair Wash, in order to minimize our NEPA requirements/impacts.



PROPOSED I-17 ENHANCED SIGNAGE AND IMPROVED LANDSCAPE

Phase 02 Projects

The projects below identify priorities for long-term capital improvements consistent with the timeline of this plan, and are not in priority order.

	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
	Geology Annex	Demolition	7,904		
7	Milton Community Building	New Construction			28,800
58	Milton Entry/Riordan Ranch	Circulation			
	Roseberry Apartments	Demolition	34,558		
30	Geology **	Major Renovation		22,559	
	SBS West	Demolition	71,312		
31	Raul H Castro SBS	Major Renovation		63,321	
8	Student Services Pavilion	New Construction			39,000
59	Pedestrianize Knoles Drive	Circulation			
49	E-W Connection - Performing Arts to Bookstore	Open Space and Landscape			
53	Library Plaza	Open Space and Landscape			
12	Cline Library Expansion	Addition			58,800
65	Riordan Rd Edge Gateway Signage + Landscape	Gateway			
33	Babbitt Admin Center*	Interior Renovation		29,423	
26	Student Academic Services*	Interior Renovation		111,915	
27	J Lawrence Walkup Skydome	Building Upgrades		254,360	
	Nursing Building	Demolition	19,696		
49	E-W Connection - South Quad to East of Du Bois	Open Space and Landscape			
13	Du Bois Student Center	Addition			18,000
35	Old Main **	Renovation		31,259	
4	Arts + Letters Replacement	New Construction			78,800
	Academic Annex	Demolition	3,600		
47	Implement Biomass or Geothermal	Infrastructure			
29	Biological Sciences	Major Renovation		86,964	
Totals			(137,070) GSF	499,801 GSF	+ 223,400 GSF

TABLE LEGEND

DEMOLITION

OPEN SPACE/
LANDSCAPE

RENOVATION

NEW BUILD/
REPLACEMENT

CIRCULATION

INFRASTRUCTURE

Phase 02 Total Project Costs: \$490,460,000

Cost Estimates are total project cost, based on 2023 dollars (no escalation), and based on rough order of magnitude costs per square foot.

* Indicates Secondary Effect Renovation Project

** Historically Sensitive Renovation

+ Does not include new parking structures

Phase 02 Projects

Milton Area Improvements

New Milton Community Building: NAU peeks into Flagstaff's busiest thoroughfare at this premier site along Milton Avenue. The outward focus on the site is an exceptional opportunity to facilitate engagement and collaboration between the university and the community.

The building will:

- Engage the community on campus and provide insight into the programs and activities happening at NAU.
- Host community and campus events within ample meeting spaces.
- Provide educational spaces and displays that honor the history of the site where the proposed building will sit, including Indigenous Peoples and the site's history in relation to the Green Book.

While a specific program for the new building has yet to be established, the intent is to create a highly flexible and adaptable building that can change with the needs of NAU and the community.

Project Information:

- *Project Size: 86,400 GSF, 3 stories*
- *Building Program: Community-based*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$70.2M*
- *Deferred Maintenance Impacts: n/a*

Demolish Geology Annex:

As an enabling project for the new Milton Community Building, the Geology Annex will be demolished. The building houses the School of Earth and Sustainability, which is planned to relocate into the ISAAC building during phase 01. The building has \$95K in deferred maintenance, which would be eliminated with the demolition of the building.

Project Information:

- *Project Size: Reduction of 7,904 GSF*
- *Building Program: Academic*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$79K*
- *Deferred Maintenance Impacts: Removes \$895K*

Demolish Roseberry Hall Apartments:

As an enabling project for the new Milton Community Building, the Roseberry Apartments will be demolished. Roseberry currently houses approximately 200 beds. Prior to demolition, these beds must be replaced in an NAU-revenue generating housing community. Options being tested are the addition of beds to the South Village Apartments. Roseberry Hall has \$3.7M in deferred maintenance, which would be eliminated with the demolition of the building.

Historical Context: In the 1950s, dorm space was in critically short supply. The owner of the Park Place Motel (demolished) proposed a joint venture to build a dual-purpose dormitory and motel expansion for the motel that the university (then Arizona State College) could lease during the semesters and that could serve the motel's business at other times. The Park Plaza Motel was listed in Victor H. Green's Travelers' Green Book.

Project Information:

- *Project Size: Reduction of 34,588 GSF*
- *Building Program: Housing*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$345K*
- *Deferred Maintenance Impacts: Removes \$3.7M*

- VEHICULAR CIRCULATION
- - - - - SERVICE AND EMERGENCY
- ENHANCED GREENSPACE
- IMPROVED EAST-WEST CONNECTIONS
- PEDWAY IMPROVEMENTS





PROPOSED MILTON AREA IMPROVEMENTS

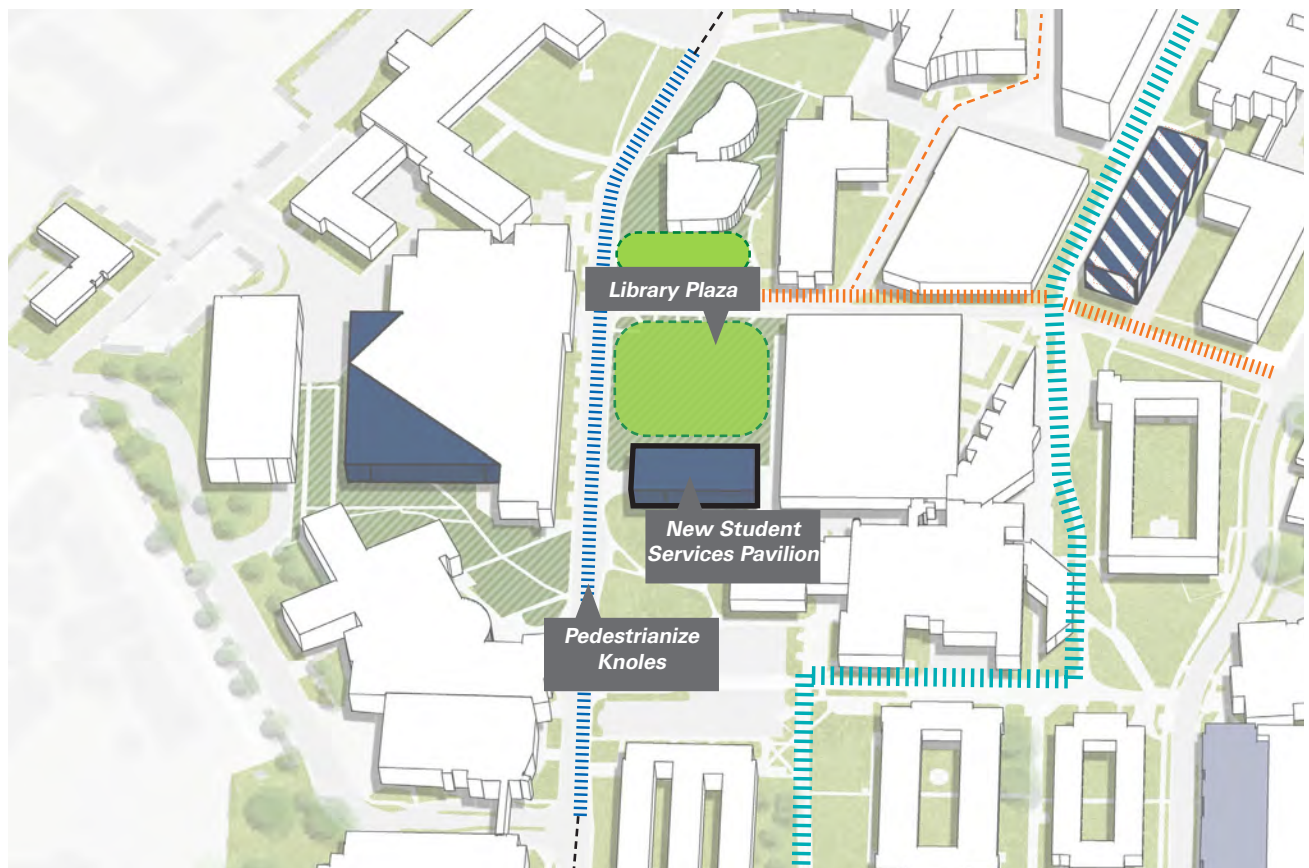
New Student Services Pavilion

The 2019 Space Study revealed a lack of student space on the campus for studying, socializing, and meeting. A new three-story structure will house student space for clubs, organizations, meeting spaces, and lounge space on what is currently lot P13. The new building will be a pavilion-like structure, highly-transparent, with flexible and large open spaces. Adjacent to the new pavilion, is a new open space, which is outlined within Phase 02 Open Space projects.

- VEHICULAR CIRCULATION
- - - - - SERVICE AND EMERGENCY
- ENHANCED GREENSPACE
- ||||| IMPROVED EAST-WEST CONNECTIONS
- ||||| PEDWAY IMPROVEMENTS

Project Information:

- *Project Size: 39,000 GSF*
- *Building Program: Student Life, Clubs and Organizations*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$31.7M*
- *Deferred Maintenance Impacts: n/a*



Arts and Letters Replacement Building

As a second phase to ISAAC, a new replacement building for Arts and Letters will be built on the site of Babbitt Academic. As a point of sequencing, the programs from Babbitt Academic (English, Global Languages, Philosophy), will be placed in Swing Space during the construction of ISAAC, and will remain in place until the Replacement Building is complete, or a renovation to Babbitt Academic occurs - this decision-point is dependent upon availability of funding and project timelines.

In addition to Letters programs, Interior Design Studios and Fine/ Applied Arts functions from Performing and Fine Arts will be relocated into the new replacement building to provide additional square footage for larger studios, and a re-imagined Composition Center located at the ground floor that serves students university-wide.

Project Information:

- *Project Size: 78,800 GSF*
- *Building Program: College of Arts and Letters (English, Global Languages, Philosophy, and Design)*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$31.7M*
- *Deferred Maintenance Impacts: n/a*

Additions

Cline Library Addition:

In alignment with the Library Master Plan's Option One, One Bold Move, and as a second phase to the functional renovation of Cline Library, strategic demolition and an addition will be placed to expand the library and re-order the interior organization of the library into a more unified experience.

Per the Library Master Plan, "By aligning the floor levels of old and new, and by right-sizing the collections and study spaces, Option 1 proposes a radical transformation of Cline Library, offering a new building face towards the community, state of the art new facilities for Special Collections and Archives, and a newly expanded central atrium space to serve as the building heart.

Removing the constraining structural system and obsolete mechanical systems of the older library wings allows for greater programmatic flexibility, more efficient storage of collections and the ability to expand the impact of environmental solutions that match NAU's goals as outlined in the draft Climate Action Plan."

Project Information:

- Project Size: 268,593 GSF
- Building Program: Library/Study and Student Space
- Phase 02, Mid-term
- Cost Estimates (Total Project Costs in 2023 dollars): \$89.4M
- Deferred Maintenance Impacts: n/a



Image Credit: Sasaki, NAU Library Master Plan

Du Bois Addition:

An expansion of dining seats is needed to support the new 1,000 student residents. An addition to the Du Bois Union is proposed with student seating and expanded food venues (as required). The building addition will be placed along the South Campus Quad and could feature indoor/outdoor elements that encourage users to be outdoors when the weather is appropriate.

Project Information:

- *Project Size: 18,000 GSF*
- *Building Program: Dining and Student Space*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$14.6M*
- *Deferred Maintenance Impacts: n/a*

Renovations

Babbitt Administration Renovation:

With the relocation of NAU Leadership to Gammage, Babbitt Administration becomes available for re-use. The building is located along the edge of the campus, and would best serve as a public-facing building, holding a consolidation of special collections from throughout academic Colleges and the Libraries, event and meeting space, and/or

Project Information:

- *Project Size: 29,423 GSF*
- *Building Program: Collections and meeting spaces*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$24M*
- *Deferred Maintenance Impacts: Resolves \$2.8M*

Biological Sciences Renovation: The Biological Sciences Building, is planned to become the anchor for Biological Sciences, along with the programs remaining in Wettaw and Science Lab. The building today is in fair condition, however there is an opportunity for consolidation of academic programs from Peterson, functional building updates to best support high-level science education, and completion of the energy retrofits and building system updates in alignment with sustainability goals. Renovation will likely need to occur in phases as to not require expensive swing space.

Project Information:

- *Project Size: 86,964 GSF*
- *Building Program: Biological Sciences*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$70.7M*
- *Deferred Maintenance Impacts: Resolves \$4.2M*

Raul H. Castro Social and Behavioral Sciences

Renovation: As a parallel effort to the programming of the new SBS Replacement Building, and a second phase of modernizing and optimizing instructional, workspace, lab space, research space, and student space for both the College and for students university-wide. The building is listed as being in good condition and as with other renovations to academic buildings, energy retrofits should be paired with modernization and optimization of space within the building.

Project Information:

- *Project Size: 63,321 GSF*
- *Building Program: College of Social and Behavioral Sciences*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$51.4M*
- *Deferred Maintenance Impacts: Resolves \$1.4M*

Geology Renovation: With the completion of the ISAAC building, the Geology Building, is planned to be renovated, and utilized as swing space in the short-term, but long-term a program has yet to be determined. The building's location to the North Quad and the comparatively small-scale of the building's interior, it would be ideal for administrative space, meeting space, or student gathering space. The building today is in poor condition, and as a historic structure on the campus, a thoughtful renovation to Geology is a critical component to maintain the history and nostalgia of NAU's north campus. The building is on the National Register of Historic Places, and any renovation must follow guidelines set forth by the State Historic Preservation Office (SHPO).

Project Information:

- *Project Size: 22,559 GSF*
- *Building Program: Short-term will serve as swing space, Flexible for future needs in long-term*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$18.3M*
- *Deferred Maintenance Impacts: Resolves \$3.1M*

Old Main Renovation:

As NAU's most iconic historic structure, a thoughtful renovation to Old Main is a critical component to maintain the history and nostalgia of NAU's north campus. The building is currently home to Advancement and Alumni Engagement, Gallery Space, and several administrative programs. After the historically-sensitive renovation, the Foundation will remain in Old Main as the primary tenant. The building is on the National Register of Historic Places, and any renovation must follow guidelines set forth by the State Historic Preservation Office (SHPO).

Project Information:

- *Project Size: 31,259 GSF*
- *Building Program: NAU Foundation*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$28.3M*
- *Deferred Maintenance Impacts: Resolves \$1.3M*

Student and Academic Services Renovation:

Although a relatively new building on the campus, Student and Academic Services holds several academic functions that are planned to be relocated into new academic replacement buildings - Psychological Sciences into the new SBS Replacement Building and Health Sciences into the new Nursing Replacement Building.

This provides the opportunity to further consolidate service functions, primarily from Gammage and Gateway. These programs include Financial Aid, Academic Success Centers, Career Development, Advising, Curriculum and Assessment, and Admissions. Programs to remain in the building are Enrollment Services, First Year Experience, Curriculum and Assessment, and the Lumberjack Math Center.

Project Information:

- *Project Size: 58,000 asf across the second, third, and fourth floors.*
- *Building Program: Consolidated Student and Academic Services*
- *Phase 02, Mid-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$21M*
- *Deferred Maintenance Impacts: n/a*

Open Space

Library Plaza: This new Library Plaza presents an incredible opportunity to develop a new outdoor student life hub in the heart of campus. As a space that is inclusive for all, its proximity to the Native American Cultural Center (NACC) provides an opportunity to tie native and Indigenous landscape as a four-season ceremonial space and gathering place for students. This area serves as a commitment to inclusivity, education, and celebration of the Indigenous pride. The Library Plaza will relocate 149 spaces from P13 into a nearby parking structure. This area of campus is heavily congested, and currently pedestrian / vehicle conflicts are present. The proposal of closing Knoles during peak hours to single-occupancy vehicles allows for a pedestrian focused area between the major hubs of the Fieldhouse, Union, and Library.

East-West Connections: The proposed east-west connections are critical to functionality and the pedestrian experience. In phase 02, the following east-west connections should be completed:

- Performing Arts Center to Bookstore
- South Quad to East of Du Bois Union



PROPOSED LIBRARY PLAZA

Circulation

Pedestrianize Knoles: Knoles Drive is a main corridor that connects the north, central, and south of campus. Currently, transit and campus shuttles operate in mixed traffic on Knoles Drive. During peak class changes, buses and shuttles are subject to congestion conditions. The Plan proposes to restrict private vehicle access on Knoles Drive between Tormey Avenue and Riordan Road, with exceptions to handicapped parking and other needs. Buses, campus shuttles, and bicycles will be allowed to use Knoles Drive, but all other private vehicles will be restricted during peak times. In addition to reducing delays for buses and shuttles, this strengthens the connection between the University Union and the Cline Library. This new pedestrian path can connect into a proposed Pedway along Knoles Drive, with streetscape and way-finding.



PROPOSED PEDESTRIANIZED KNOLES DRIVE AND LIBRARY PLAZA

Phase 03 Projects

The projects below identify priorities for long-term capital improvements consistent with the timeline of this plan, and are not in priority order.

	Bundled Projects	Project Type	Demolition GSF	Renovation GSF	New Build GSF
32	University Union Fieldhouse	Renovation		88,019	
15	Facility Services	Addition			17,000
38	Facility Services	Major Renovation		127,981	
37	Health Professions	Renovation		59,826	
16	Engineering Addition (location TBD)	Addition			20,000
39	ROTC + C4P Lab Building	Renovation		25,182	
64	Lone Tree Edge Gateway Signage + Landscape	Circulation			
18	Transportation Center + Garage	Parking Structure + Circulation			200,000
49	E-W Connection - east of DuBois to Kinsey + HPC	Open Space and Landscape			
	Butler Office Building	Demolition	9,195		
	Humphreys Office Building	Demolition	2,177		
	Printing Services	Demolition	5,111		
9	Northend Mixed-Use Building	New Construction			105,000
60	Pedestrianize Humpherys Road	Circulation			
63	Bulter Edge	Open Space and Landscape			
66	University Drive/San Francisco	Gateway			
	Gateway Success Center	Demolition	16,662		
10	Central Campus Apartments	New Construction			220,000
55	Central Quad Improvements	Open Space and Landscape			
51	Pedway Improvements	Open Space and Landscape			
49	East-West Connection	Open Space and Landscape			
56	Sinclair Wash Improvements	Open Space and Landscape			
52	FUTS Trail Connections	Open Space and Landscape			
40	Rolle Activity Center	Renovation		47,697	
36	Eastburn Education Center	Renovation		78,047	
11	Multi-Purpose Arena	New Construction			200,000
Totals			(33,145) GSF	426,752 GSF	+ 562,000* GSF

TABLE LEGEND

DEMOLITION

OPEN SPACE/
LANDSCAPE

RENOVATION

NEW BUILD/
REPLACEMENT

CIRCULATION

INFRASTRUCTURE

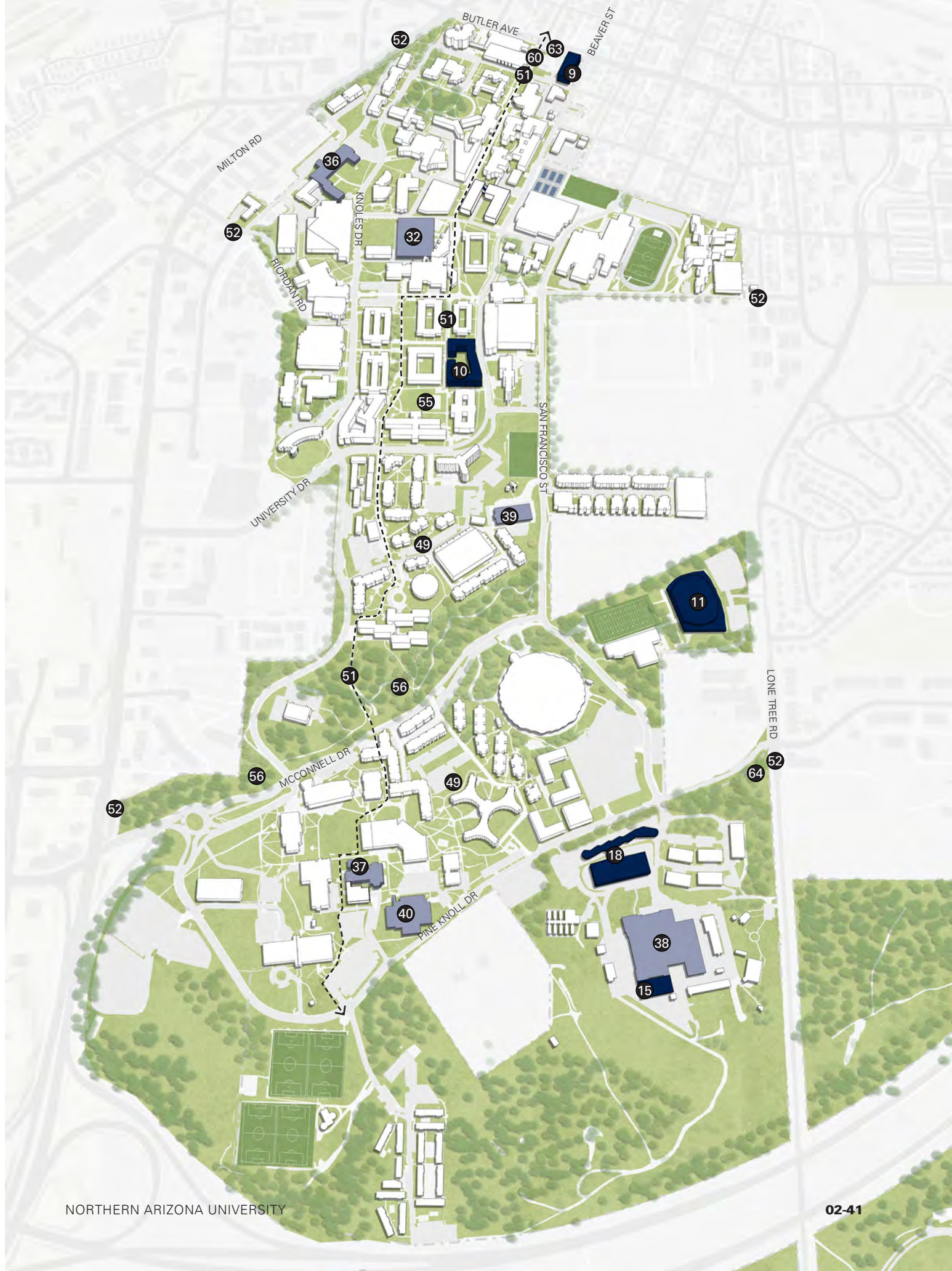
Phase 03 Total Project Costs: \$680,465,000

Cost Estimates are total project cost, based on 2023 dollars (no escalation), and based on rough order of magnitude costs per square foot.

* Indicates Secondary Effect Renovation Project

** Historically Sensitive Renovation

+ Does not include new parking structures



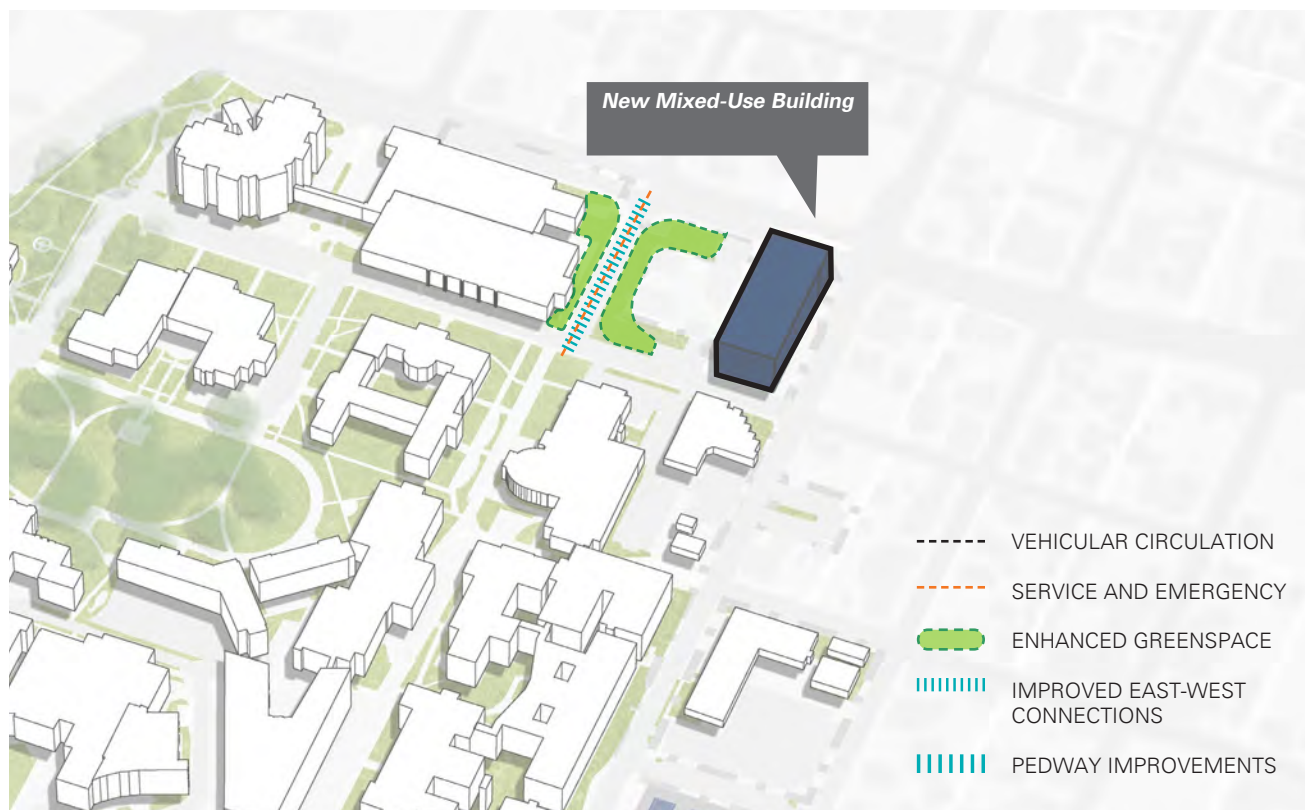
Phase 03 Projects

North Campus Improvements

New Northend Mixed-Use Building: The final addition of on-campus housing will occur along the north edge of the campus, at the intersection of Butler Avenue and Beaver Street.

The university is interested in providing more residential options for graduate students, students with families, and employees since the off-campus market in Flagstaff is costly. This proposed housing project supports critical recruitment and retention efforts for upper-division students, faculty, and staff.

The new four-story mixed-use apartment building (located where lot P1C and the Butler Office Building currently sit) will include 200 new apartment beds across three stories. Because of the building's proximity to the City of Flagstaff, the first floor will house public-facing NAU programs and/or retail space that serve both campus and community users.



Project Information:

- *Project Size: 105,000 GSF*
- *Building Program: Public Program, Retail, Housing*
- *Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$72.2M*
- *Deferred Maintenance Impacts: Removes \$1.6M (demolitions of Humphreys Office Building, the Butler Office Building, and Printing Services)*

Secondary Effects:

Several buildings are planned to be demolished to build the new Mixed-Use building including the Humphreys Office Building, the Butler Office Building, and Printing Services. Programs will be relocated prior to building demolition.



PROPOSED MIXED USE BUILDING AND CAMPUS EDGE

Central Campus Housing

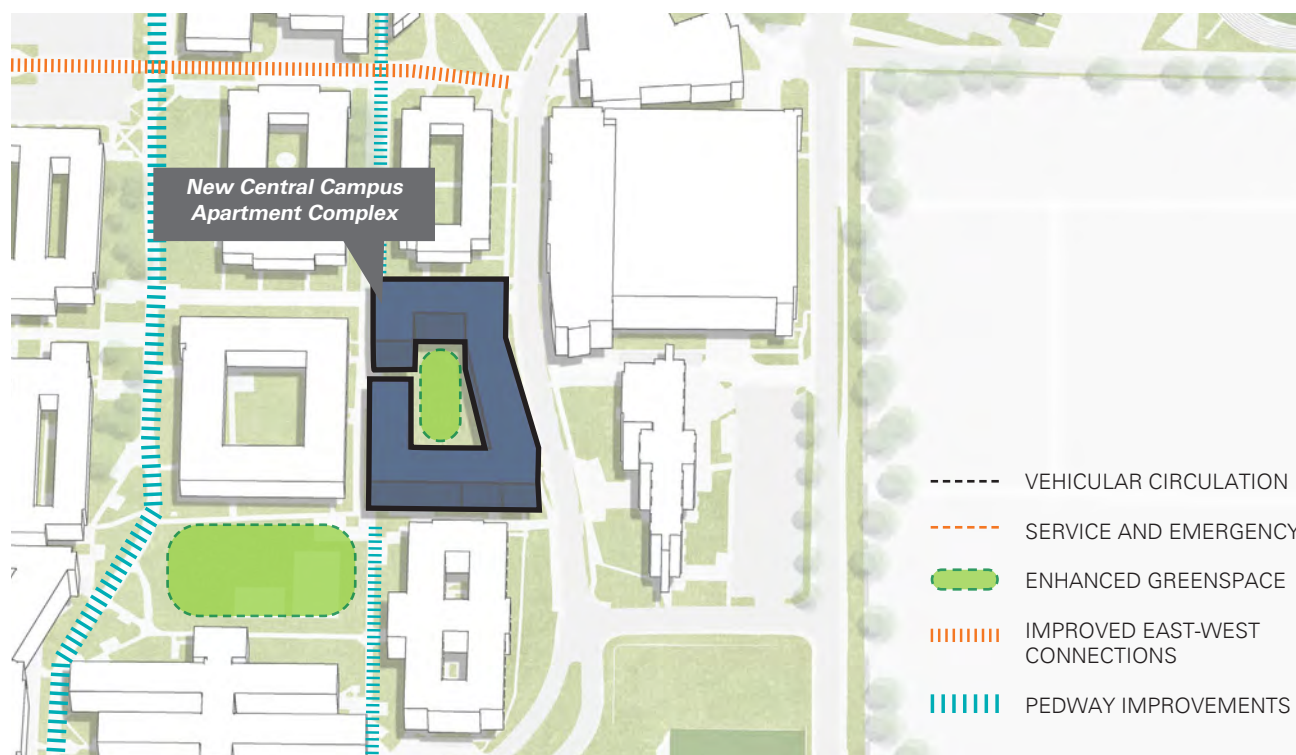
Apartment Complex: As a second phase to add apartment beds onto campus, a new 500-bed apartment complex is proposed on the current Gateway Center site, which will be demolished. Like the South Campus Housing Village, the driver is to reduce the current demand for upper-division students wanting to live in high-quality on-campus housing.

This project will build a single new housing building with approximately 500 new beds. Similar to the South Campus Housing Village, the new housing buildings will incorporate active lounges to support student experiences, passive lounges for studying, and shared kitchens to encourage community and student services. The building massing will create a courtyard that offer students outdoor social areas.

The exterior gathering and social environments should be coordinated with social spaces on the lower levels of the buildings.

Project Information:

- *Project Size: 220,000 GSF total, 5 stories (500 Apartment Beds, planned for 400sf/bed)*
- *Building Program: Undergraduate Student Housing*
- *Timeline Horizon: Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$152M*
- *Deferred Maintenance Impacts: \$829K (demolition of Gateway Student Success Center)*

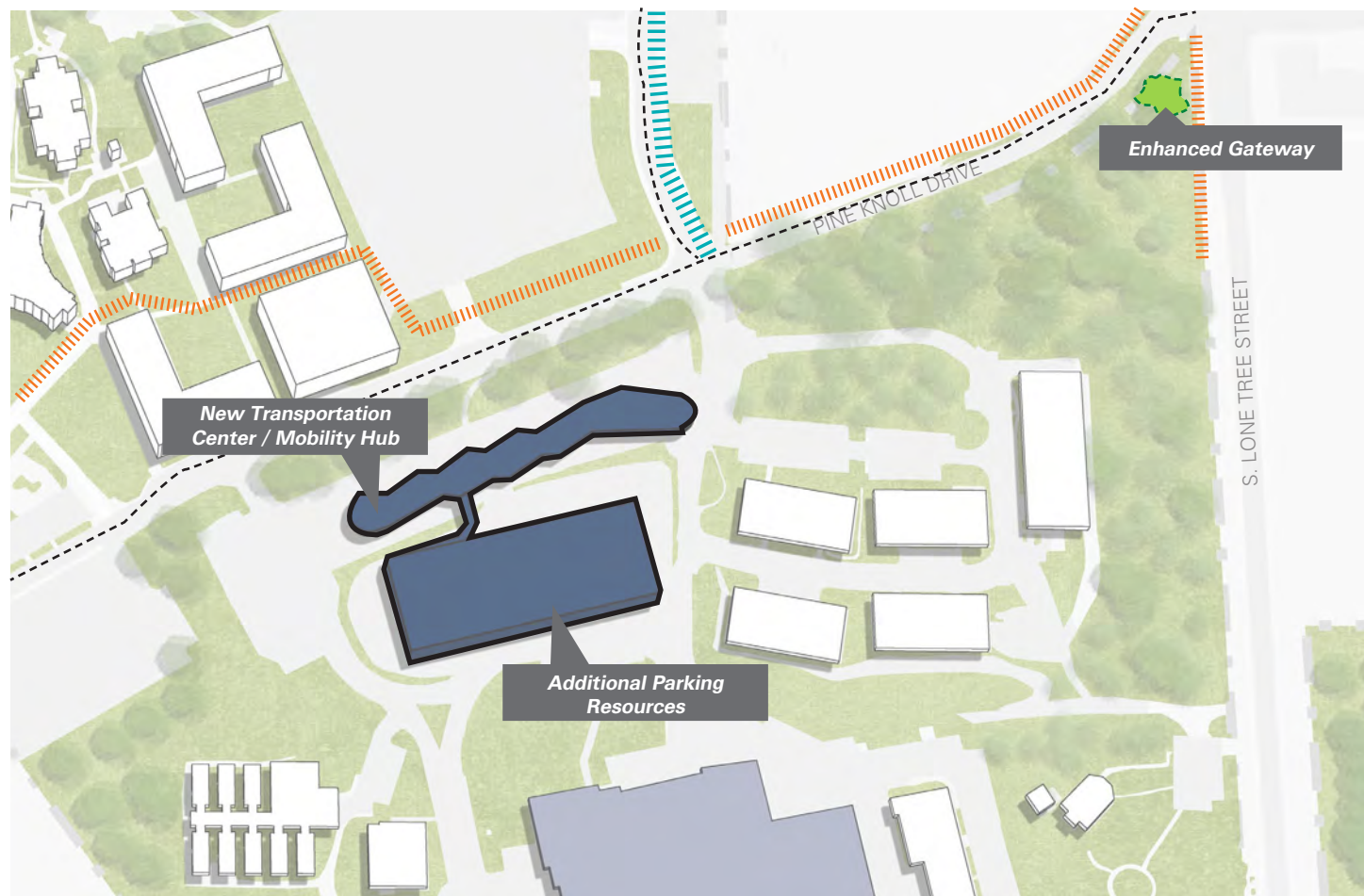


Transportation Center / Mobility Hub

A new Transportation Center / Mobility Hub will be located along Pine Knoll Drive within existing lot P64. This location will provide multimodal connections to the southern end of campus, serving several large event facilities, like the Skydome and new multi-purpose arena. The site will also accommodate covered campus shuttle parking / storage for transportation services and a new 400-space parking structure. This parking structure will include pedestrian access from the parking structure to the mobility hub. The parking structure rooftop may also be equipped with solar panels.

Project Information:

- *Project Size: 200,000 GSF (approximately 400 spaces)*
- *Building Program: Transportation Center, Transportation Services, and Parking*
- *Timeline Horizon: Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$30M*
- *Deferred Maintenance Impacts: n/a*



Multi-purpose Arena

As part of the Campus Master Plan, an additional high-level study was completed to understand the viability of adding a multi-purpose arena to the campus. The arena would primarily serve the community, as a premier venue for a wide range of events, including concerts, sports competitions, conferences, and community gatherings.

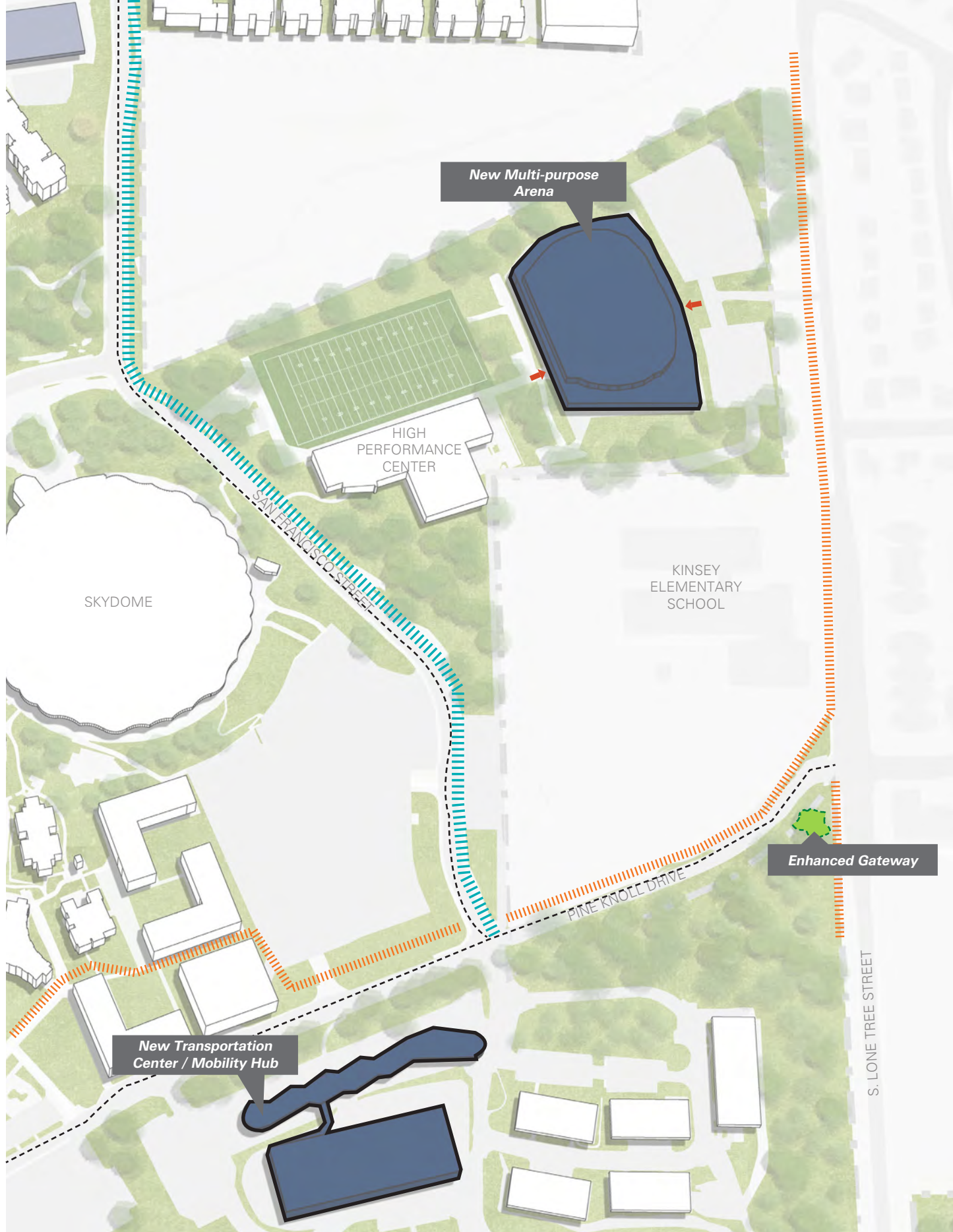
While the arena project is primarily for community and non-athletics events, the addition of the arena positively impacts NAU Athletics by creating a purpose-built competition space as well as the entire student population through an expansion of recreation space. Several of NAU's NCAA Division I programs are competing in less-than-ideal spaces. Rolle Activity Center is inadequate for men's and women's basketball programs and women's volleyball. A new competition space is desired for these athletics programs and may be required in the future.

NAU severely lacks recreation space, specifically on south campus. Through the Master Plan, NAU has identified building a new recreation and wellness space within the South Campus Community Building, and with the addition of an arena, Rolle could be almost completely vacated by NCAA and converted to critical recreation, fitness, and wellness spaces to serve the entire student population.

Along Lone Tree Road, which is planned to be widened through a future municipal project, the new arena becomes a new gateway to the university. Along with the arena, the new community gateway could include a welcome center, ice rink, and other features that the city and its residents can embrace. The arena can anchor to a larger public edge along Lone Tree, connected into the campus fabric.

Project Information:

- *Project Size: 220,000 GSF total*
- *Building Program: Community Events and Entertainment, Sports, and NAU Division I Sports*
- *Timeline Horizon: Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$179M*
- *Deferred Maintenance Impacts: n/a*



Additions

Facilities Services Renovation and Addition: As a strategy to consolidate functions and remove low density buildings from the campus, a renovation and addition to the Facilities Services building will house displaced programs such as Printing Services and expanded needs for Operations.

Project Information:

- *Project Size: 127,900 GSF (renovation) and 17,000 GSF (addition)*
- *Building Program: Facilities, Maintenance, Operations, Printing Services*
- *Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$40.6M - renovation; \$13.8M - addition*
- *Deferred Maintenance Impacts: Resolves \$7.8M*

Engineering Addition: As the College of Engineering continues to grow by adding new programs, finding interdisciplinary collaboration opportunities, and embracing new partnerships, additional space may be required, but more likely is a focused consolidation effort to relocate functions closer to existing Engineering buildings. While the master plan does not determine a definitive location for the addition, functions such as engineering-specific advising and disparate labs space will benefit from being closer to the anchor building - Engineering Technology.

Project Information:

- *Project Size: 20,000 GSF*
- *Building Program: Engineering Programs - Advising, Lab Space*
- *Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$16.3M*
- *Deferred Maintenance Impacts: n/a*

Renovations

Fieldhouse Renovation: As a second phase to the Phase 01 renovation, the Fieldhouse will be renovated into multi-purpose space that can support intermurals and large events for students and community. The university is investigating the feasibility of putting an indoor ice rink within the building. This requires further study to understand how that use of space will impact the utilization of the building, the wayfinding challenges of bringing the public into the center of campus, and the financial and revenue impacts of the project.

Project Information:

- *Building Program: Auxiliary, Student Space*
- *Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$12.5*
- *Deferred Maintenance Impacts: n/a*

Health Professions: As a parallel effort to the programming of the new Nursing Replacement Building, and a second phase of modernizing and optimizing instructional, workspace, clinical, lab space, research space, and student space for the College. The building is in poor condition and has a deferred maintenance backlog of over \$5M. As with other renovations to academic buildings, energy retrofits should be paired with modernization and optimization of space within the building. The Health Professions building will be physically connected through a pedestrian bridge that creates a seamless complex-feel for students, faculty, and patients.

Project Information:

- *Project Size: 59,826 GSF*
- *Building Program: Health Professions*
- *Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$48.6M*
- *Deferred Maintenance Impacts: Resolves \$5M*

Rolle Activity Center: As court-sport-based athletics programs (basketball and volleyball) relocate into the new Multi-purpose Arena, Rolle Activity Center will transform into a student recreation space that expands the presence of fitness and wellness on south campus. Outside of D1 women's volleyball practice, the building will become the South Campus recreation center. It will require a renovation that supports recreation functions similar to what is found today at the Health and Learning Center, including basketball courts, weight and fitness areas, multi-purpose rooms, and functional training amenities.

Project Information:

- *Project Size: 47,697 GSF*
- *Building Program: Recreation and Wellness*
- *Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$38.8M*
- *Deferred Maintenance Impacts: Resolves \$4.5M*

Eastburn Education Center: As the College of Education continues to grow by adding new programs, finding interdisciplinary collaboration opportunities, and embracing new partnerships, additional space may be required. While the master plan does not determine a definitive program need driving the renovation, the building has both functional and system upgrades that would benefit the students and university in the long-term.

Project Information:

- *Project Size: 78,047 GSF*
- *Building Program: College of Education*
- *Phase 03, Long-term*
- *Cost Estimates (Total Project Costs in 2023 dollars): \$63.4M*
- *Deferred Maintenance Impacts: \$890K*

Open Space

East-West Connections: The proposed east-west connections are critical to functionality and the pedestrian experience. In phase 03, the following east-west connections should be completed:

- Du Bois Union to High-Performance Center
- Skyview to ROTC
- Sinclair Wash

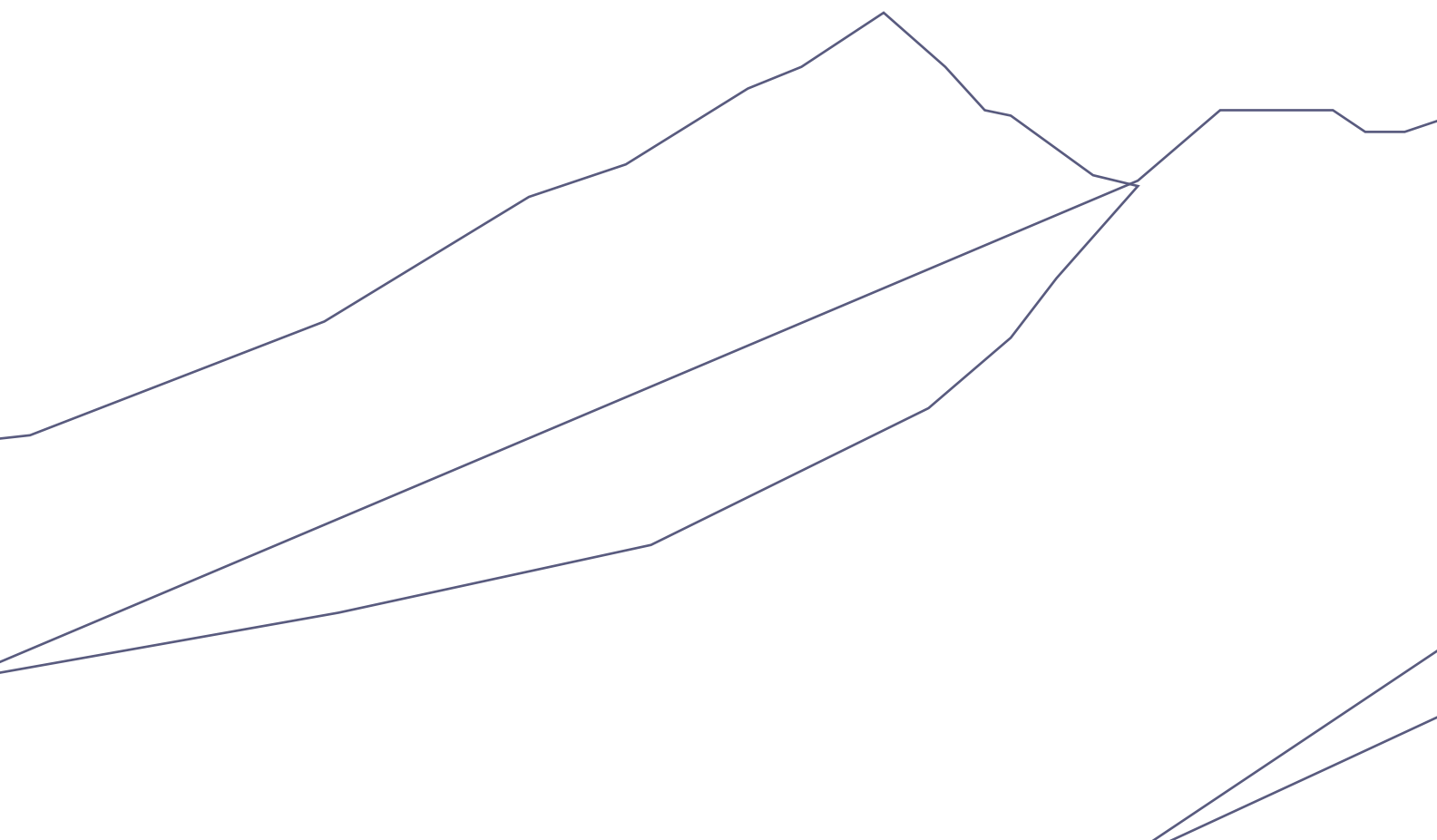
Trails Connections: The enhanced plan also provides accessibility to active transportation options and connects to off-campus mobility networks, including FUTS, by extending the current trails to the edges of campus. The Sinclair Wash is a major connection point that will be improved.

Circulation

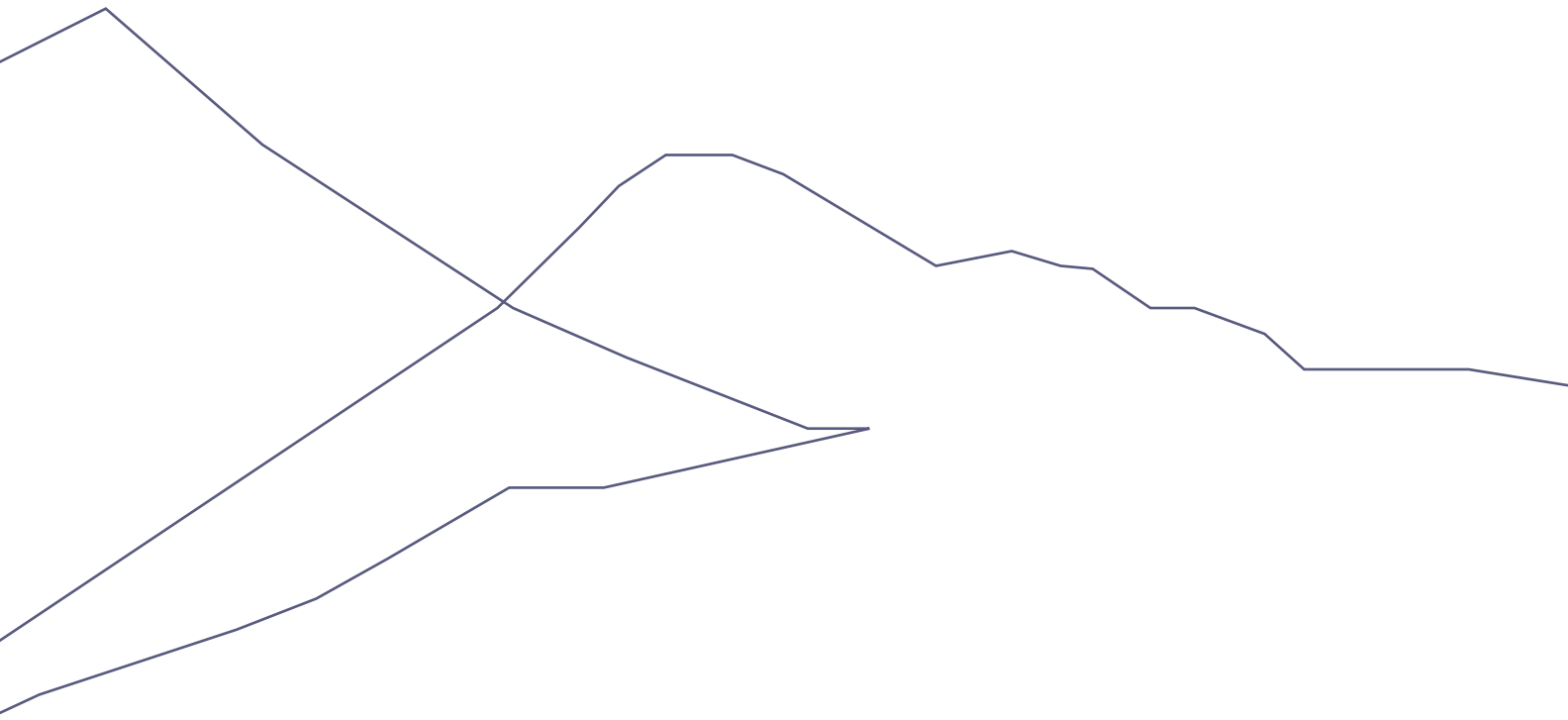
Pedestrianize Humphrys:

The design of the building will include pedestrian realm improvements in support of the campus' urban edge. The existing Pedway can be extended north to Butler Avenue, creating a new pedestrian portal onto the campus.

03



Buildings and Facilities



A Refocus On Building Assets - To Optimize and Address Deferred Maintenance

Buildings on the NAU campus are a testament to the institution's growth over the years. Old Main was completed in 1899, the year the institution was established as the Northern Arizona Normal School, 13 years before Arizona became a state. Old Main served as the primary academic building at the time, and as student population grew and the university expanded its academic programs, new buildings were added to accommodate the needs of the campus community. In the 1960s and 1970s, a period of rapid growth, several notable buildings were constructed, including the School of Business Administration and the College of Education. Over time, more modern buildings, like the Student-Athlete High Performance Center, Health and Learning Center, and Applied Research and Development buildings have also become integral parts of the campus landscape.

Today, Northern Arizona University is home to a diverse range of modern and state-of-the-art facilities that enhance the educational experience and support the university's diverse academic programs. The campus features a blend of contemporary architectural designs, which along side the natural surroundings creates a picturesque environment for learning and research.

The Master Plan focuses on addressing NAU's current and future needs of the campus through the efficient utilization of space and ability to continually adapt and enhance the physical infrastructure to meet evolving needs of students, faculty, and staff, while providing an innovative campus environment.

Through careful assessment and analysis, outdated or underutilized structures were identified for demolition, making way for replacement buildings that better align with the university's goals and vision. This process allows NAU to optimize its land use and create flexible spaces for modern facilities that cater to ever-evolving academic needs.

The Master Plan also proposes several renovation projects to enhance existing buildings, ensuring they meet today's functionality, accessibility, and sustainability standards. Renovations can breathe new life into historic structures while preserving their architectural significance and following sustainable practices. Sustainability is a key driver throughout this Plan and a measuring tool for buildings and facilities. Deep energy renovations for all proposed renovated buildings will advance climate action goals and reduce operational costs of these buildings.

The construction of net-new buildings accommodates growing academic programs and support services. These new facilities include academic replacement buildings, student housing, community spaces, and parking structures.

Reorganizing the campus over time allows for an opportunity to establish hubs of service and academics, creating a cohesive feeling across campus.

Statewide Locations:

- Create space for **high-growth programs** (Phoenix Biomedical Campus, Yuma, Pima, etc.)
- Evaluate **leased** space
- Update **branding and signage** at all locations
- Create spaces for **building community** at all locations
- The more we expand out, could result in **stress on services**
- Get ready for expansion at these locations with the **new A++ program**

Climate Action Plan Priorities

The Climate Action Plan sets the following priorities for building design, construction, and operation at NAU:

- Utility plant investments must be commissioned during the construction/renovation project.
- Establish the utility plant and utilities capital investment needs for renewal and replacement, and operate in energy efficient ways. Also, that utility billing motivates energy use efficiency. (Note: only auxiliaries are billed for utility use.)
- Regular collection and analysis of Flagstaff Mountain Campus utility data by standardized means.
- NAU regularly undertakes building recommissioning, and always once buildings are operational.
- Ensure that campus buildings are operated with energy efficiency as a driver for temperature, humidity, and lighting, and utilize efficient building occupancy scheduling.
- Confirmation that investments in reducing greenhouse gas emissions and/or conserving energy have a desired return on investment, and that the billing structure for water motivates conservation.
- Robust data collection and analysis of Flagstaff Mountain Campus water use on a regular basis.
- Establish standards for executing solid waste management programs for waste diversion, water collection, and disposal.
- Improve campus stormwater management policies and practices.



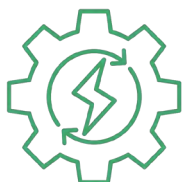
RESOURCE EFFICIENCY

Reducing building energy demand is best accomplished in during the design phase of projects. For the Flagstaff Mountain Campus, NAU projects very modest new construction or major renovations in the next decade.



CULTURE OF SUSTAINABILITY

The Climate Action Plan targets a full transition of the Flagstaff Mountain Campus from fossil fuel to 100% renewable or clean energy. The university should minimize its energy costs and anticipate changing regulations and financial risks associated with reliance on fossil fuels. Respondents asked for more activity to reduce building energy demand and further consideration of biomass as a fuel source.



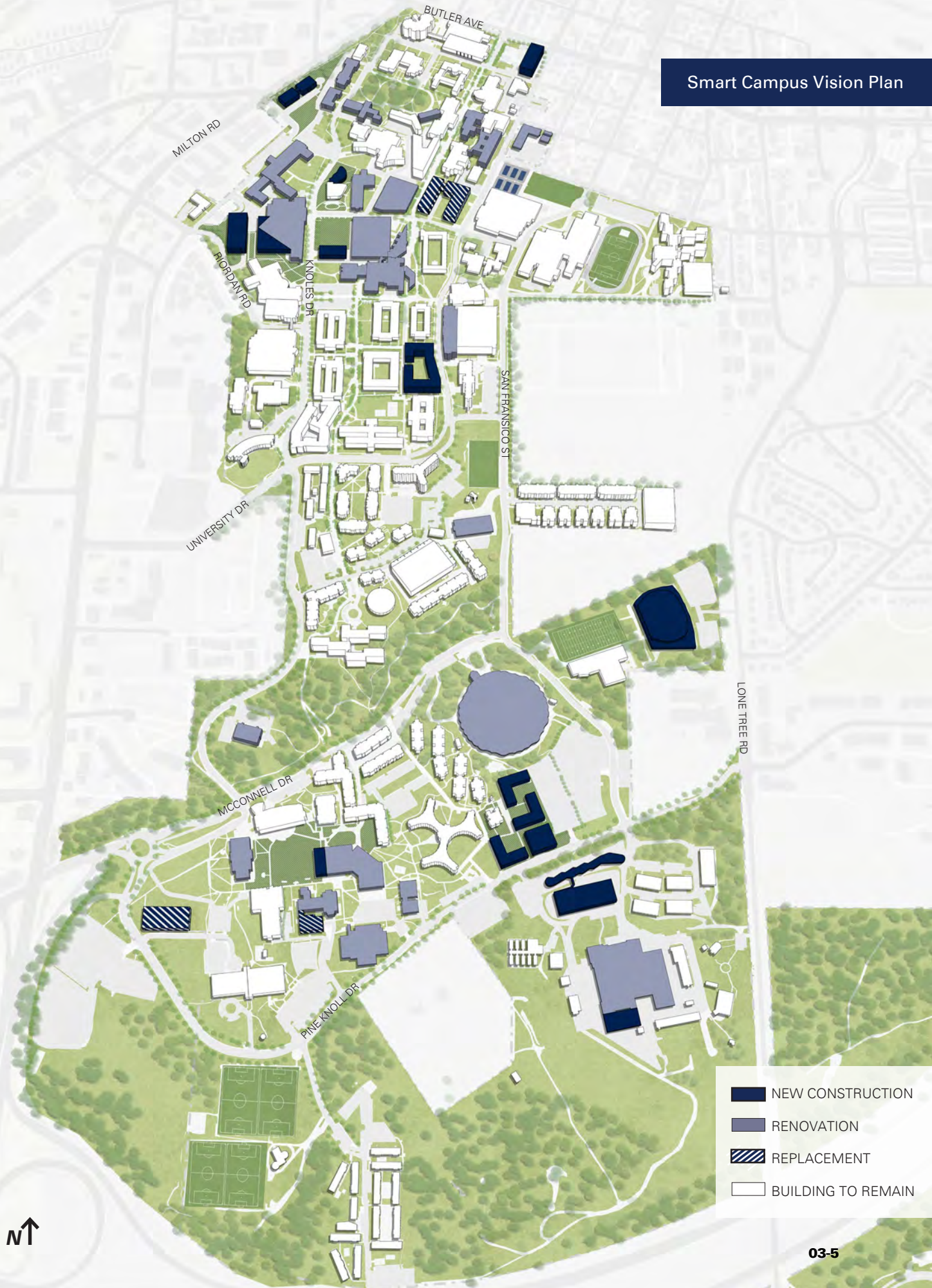
CARBON NEUTRALITY

NAU's Flagstaff Mountain Campus has issued greenhouse gas emission inventories on a nearly annual basis since 2007. During this time, the Flagstaff Mountain Campus' occupiable space grew by more than one million gross square feet. Countering the increase in energy and greenhouse gas emissions that would be expected to occur with this growth, the university credits its investments in reducing building energy demand and improving efficiencies of its plants and distribution systems as having mitigated the energy and emissions impacted that would be expected with campus growth. NAU Flagstaff Mountain Campus will realize carbon neutrality by 2030.

PROPOSED BUILDING RECOMMENDATIONS

KEY POINTS:

- **Prioritize renovation** over demolition where possible.
- **Replace poor condition space** for academic and administrative functions.
- **Increase density** to best utilize land assets.
- **Ensure programs functionally fit** the buildings they inhabit.

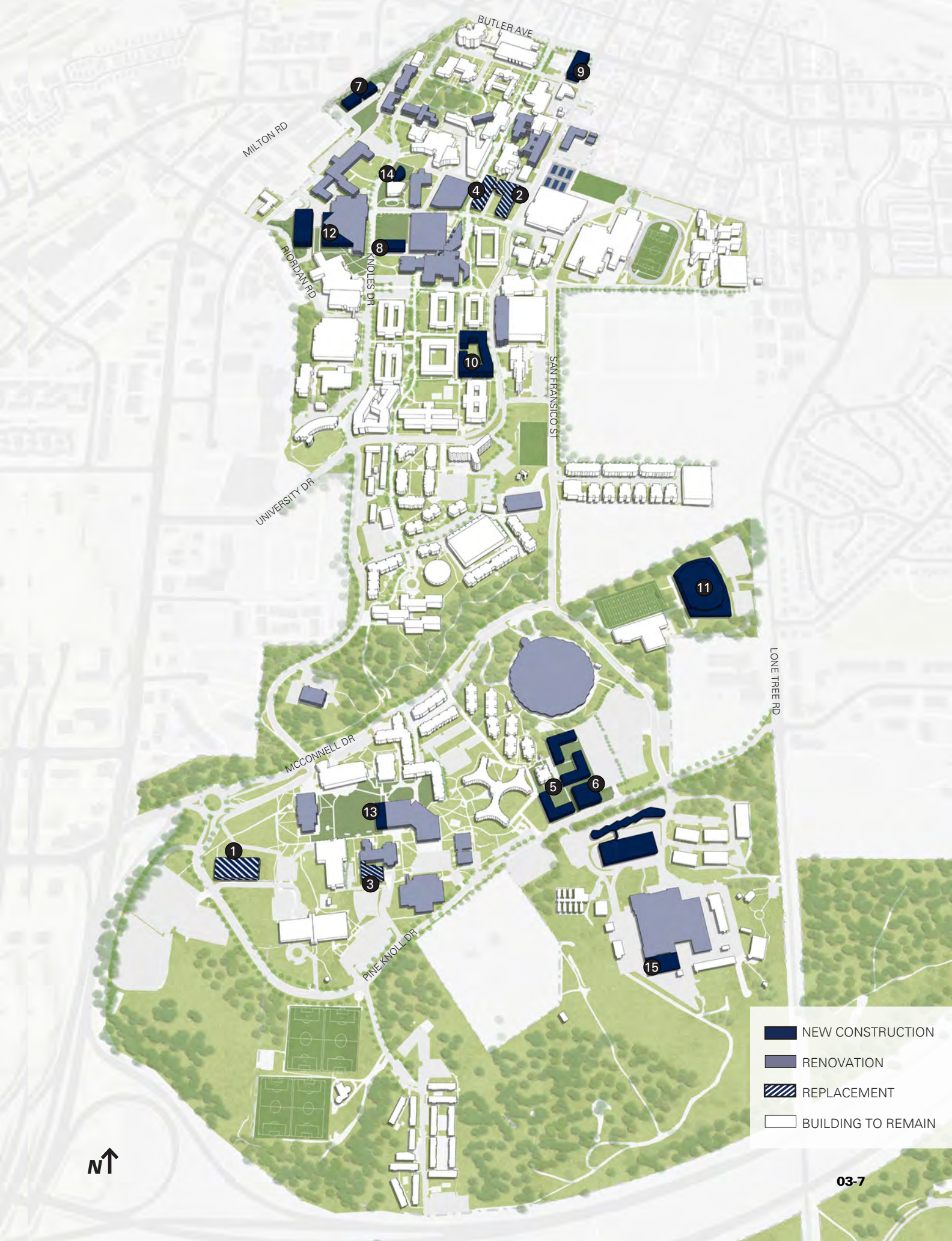


- NEW CONSTRUCTION
- RENOVATION
- REPLACEMENT
- BUILDING TO REMAIN

Proposed New Construction

- **Focus on replacement of poor condition spaces** for academic and administrative functions.
- **Expansion of space is needed** for study, lounge, wellness, housing, and dining to better support the student experience.
- **Partnership sites are located at the edges of campus** – these sites are nimble but should support ideas that bring community and industry onto campus.

		GSF
REPLACEMENT BUILDINGS 		323,000
1	Social and Behavioral Sciences Replacement Building	108,000
2	Interdisciplinary Science and Academic Complex (ISAAC)	102,000
3	Nursing Replacement Building	34,500
4	Arts and Letters Replacement Building	78,800
NET-NEW BUILDINGS		905,600
5	South Campus Apartment Complex	204,000
6	South Campus Community, Recreation, and Wellness Building	31,200
7	Milton Community Building	84,000
8	Student Pavilion Building	39,000
9	Northend Mixed-Use Complex	105,000
10	Central Campus Apartment Complex	220,000
11	Multi-purpose Arena	220,000
ADDITIONS		149,800
12	Cline Library Addition	58,800
13	Du Bois Student Union Addition	18,000
14	Native American Cultural Center Addition	36,000
15	Facility Services Addition	17,000
16	Engineering Addition (location TBD)	20,000
		1,378,700 GSF



MILTON RD

BUTLER AVE

JORDAN RD

KNOLLS DR

UNIVERSITY DR

SAN FRANCISCO ST

MCCONNELL DR

PINE KNOLL DR

LONE TREE RD

- NEW CONSTRUCTION
- RENOVATION
- REPLACEMENT
- BUILDING TO REMAIN



Proposed Demolitions

Demolitions:

- **Poor condition.** The condition of the building is below average, and the building is beyond its return on investment (ROI).
- **Increase density.** The site in which the building is sitting can or should increase in density.
- **Program fit.** The building is not purpose-built, or no longer serves the programmatic needs of NAU.

#	Impacted Buildings	Deferred Maintenance	GSF
Demolitions			
1	PETERSON	\$3,035,618	39,439
2	BABBITT ACADEMIC ANNEX + BUILDING 23a	\$655,872	39,033
3	HUMPHREYS OFFICE BUILDING	\$56,635	2,177
4	PRINTING SERVICES	\$621,551	5,111
5	BUTLER OFFICE BUILDING	\$947,293	9,195
6	GEOLOGY ANNEX	\$895,411	7,904
7	ROSEBERRY APARTMENTS	\$3,720,374	34,558
8	GATEWAY STUDENT SUCCESS CENTER	\$818,876	16,662
9	NURSING	\$2,362,649	19,696
10	HUFFER LANE FACILITY	\$149,801	5,220
11	SBS WEST	\$9,593,755	71,312
TOTAL		\$22,857,835	250,307

* Per September 23 Capital Improvement Plan 2025-2028

**MILTON PROPERTY
BUILDING DEMOLISHED**

- DEMOLITION
- RENOVATION
- BUILDING TO REMAIN

Proposed Renovations

Renovations:

- **Deferred Maintenance.**
The condition of the building is below average, and the building is beyond its ROI.
- **Suitability.** The building is not purpose-built, or no longer serves the programmatic needs of NAU.
- **Carbon footprint.** The most sustainable buildings are those that are already built.

#	Impacted Buildings	Deferred Maintenance	GSF
Renovations			
12	GAMMAGE	\$2,557,152	43,684
13	BURY	\$2,388,232	17,470
14	PHYSICAL SCIENCES	\$1,357,845	51,318
15	ADEL MATHEMATICS	\$4,187,290	43,488
16	INSTITUTE FOR HUMAN DEVELOPMENT	\$16,951	12,642
17	CLINE LIBRARY	\$15,420,040	211,312
18	UNIVERSITY UNION FIELDHOUSE	\$938,607	88,019
19	UNIVERSITY UNION DINING SERVICES	\$5,623,798	66,566
	UNIVERSITY UNION STUDENT SERVICES	\$1,699,800	24,354
	UNIVERSITY UNION FOOD COURT	\$265,239	24,767
20	STUDENT AND ACADEMIC SERVICES	-	-
21	DU BOIS BALLROOM	\$1,664,385	-
22	J. LAWRENCE WALKUP SKYDOME	\$11,729,757	-
23	SOUTH BEAVER STREET SCHOOL	\$2,094,097	30,271
24	OLD MAIN	\$1,311,576	31,259
25	GEOLOGY	\$3,130,445	22,559
26	BIOLOGICAL SCIENCES	\$4,150,705	86,964
27	BABBITT ADMINISTRATIVE CENTER	\$2,753,620	29,423
28	RAUL H. CASTRO SOCIAL AND BEHAVIORAL SCIENCES	\$1,356,634	63,321
29	EASTBURN EDUCATION CENTER	\$890,408	78,047
30	ROTC AND C4P LAB	\$400,155	25,182
31	HEALTH PROFESSIONS	\$5,769,417	59,826
32	ROLLE ACTIVITY CENTER	\$4,451,801	47,697
33	FACILITIES SERVICES	\$7,762,226	127,981
TOTAL		\$81,920,180	1,279,096

* Per September 23 Capital Improvement Plan 2025-2028

- DEMOLITION
- RENOVATION
- BUILDING TO REMAIN

PROJECTS BY PRIMARY BUILDING USE



FUTURE	ACADEMIC
EXISTING	
FUTURE	ADMIN + STUDENT
EXISTING	SUPPORT
FUTURE	RESIDENTIAL
EXISTING	
FUTURE	ATHLETICS + RECREATION
EXISTING	
FUTURE	COMMUNITY +
EXISTING	PARTNERSHIP
FUTURE	FACILITIES + OPERATIONS
EXISTING	
FUTURE	PARKING STRUCTURE
EXISTING	
FUTURE	RESIDENTIAL AND
EXISTING	PARTNERSHIP
FUTURE	STUDENT SUPPORT AND
EXISTING	PARKING

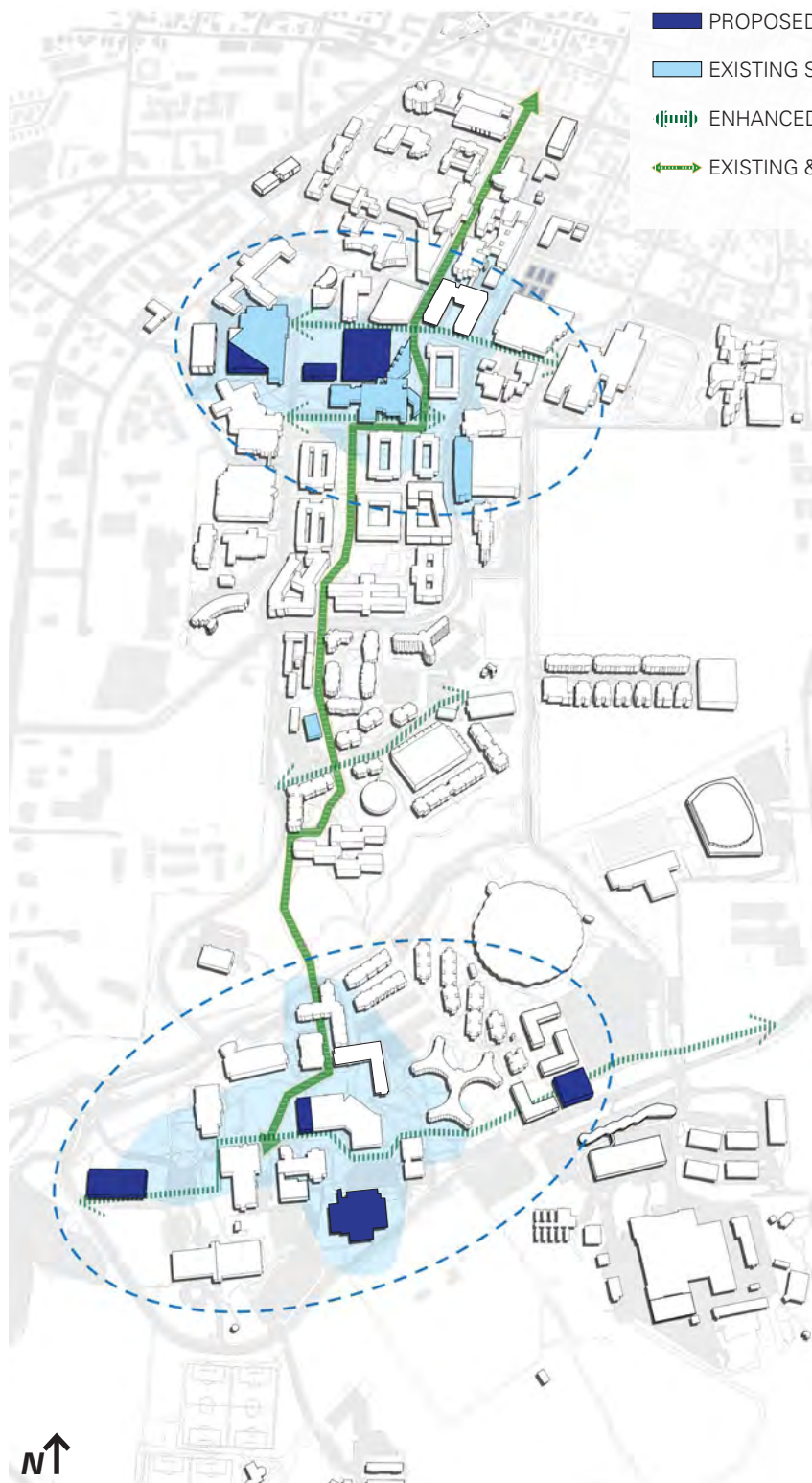
The current arrangement of buildings on campus reflects a historical need for space, resulting in a somewhat scattered layout. In the proposed plan, the focus is to continue to place new buildings in concentrated use zones, and to consolidate programs that may be disparate. For example, in areas primarily dedicated to housing infill projects continue to support a strong residential life experience. Academics continue to develop in the north and south ends of the campus through higher density academic buildings. The expansion of services is critical on the south campus through community spaces, expanded recreation.

UNIONS + DINING



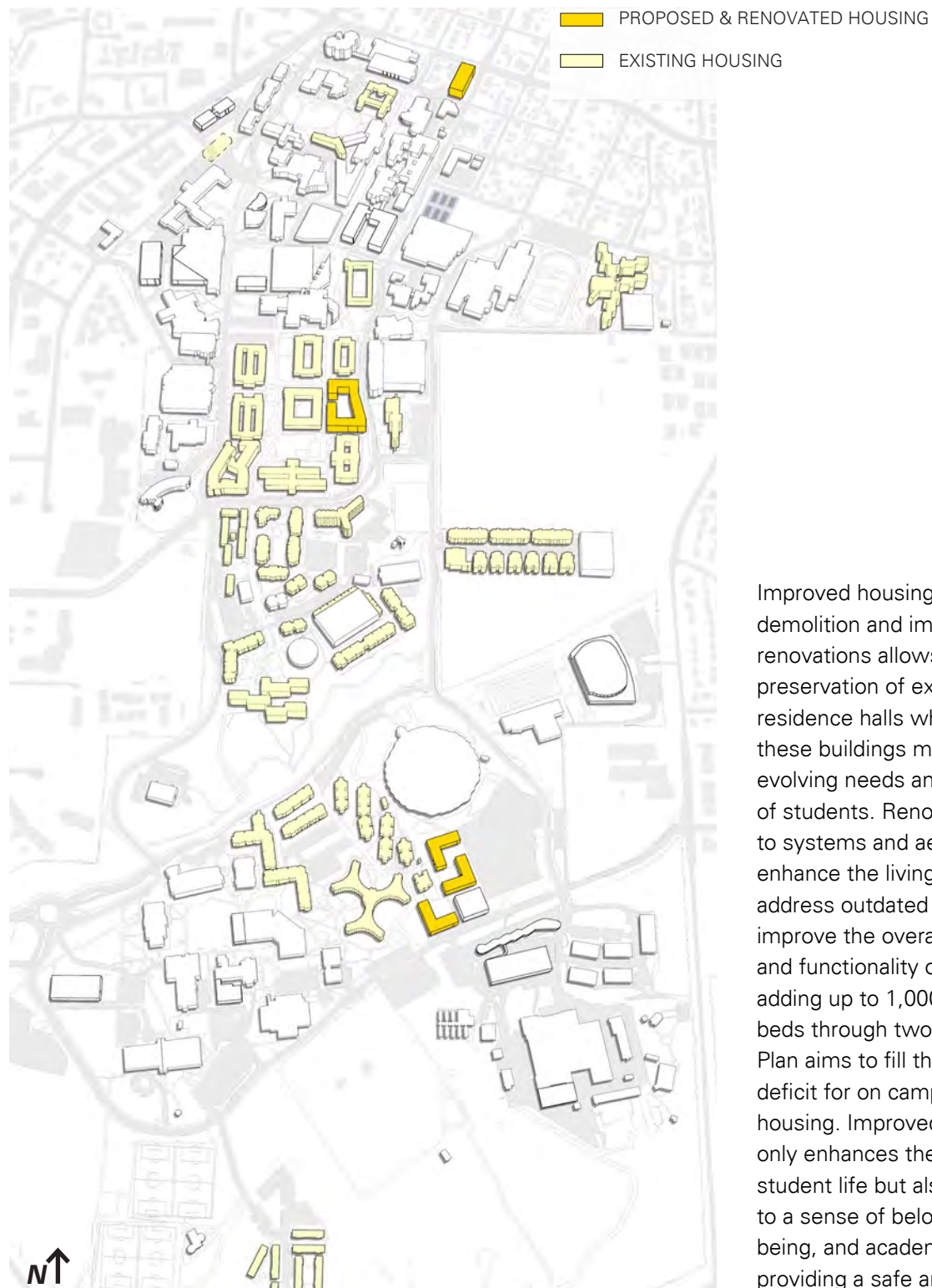
The proposed improved University Union provides a central hub for student life, offering a variety of student-oriented spaces such as lounges, study areas, and dedicated spaces for student organizations and removing nonstudent functions. These spaces foster social connections, collaboration, and a sense of community among students. Well-designed and expanded dining areas, like at Du Bois Center and the new South Campus housing complex ensure that students have access to dining options, while accommodating dietary preferences and needs. Adequate dining space reduces overcrowding and wait times, encouraging healthy eating habits and social interaction.

STUDENT SUPPORT



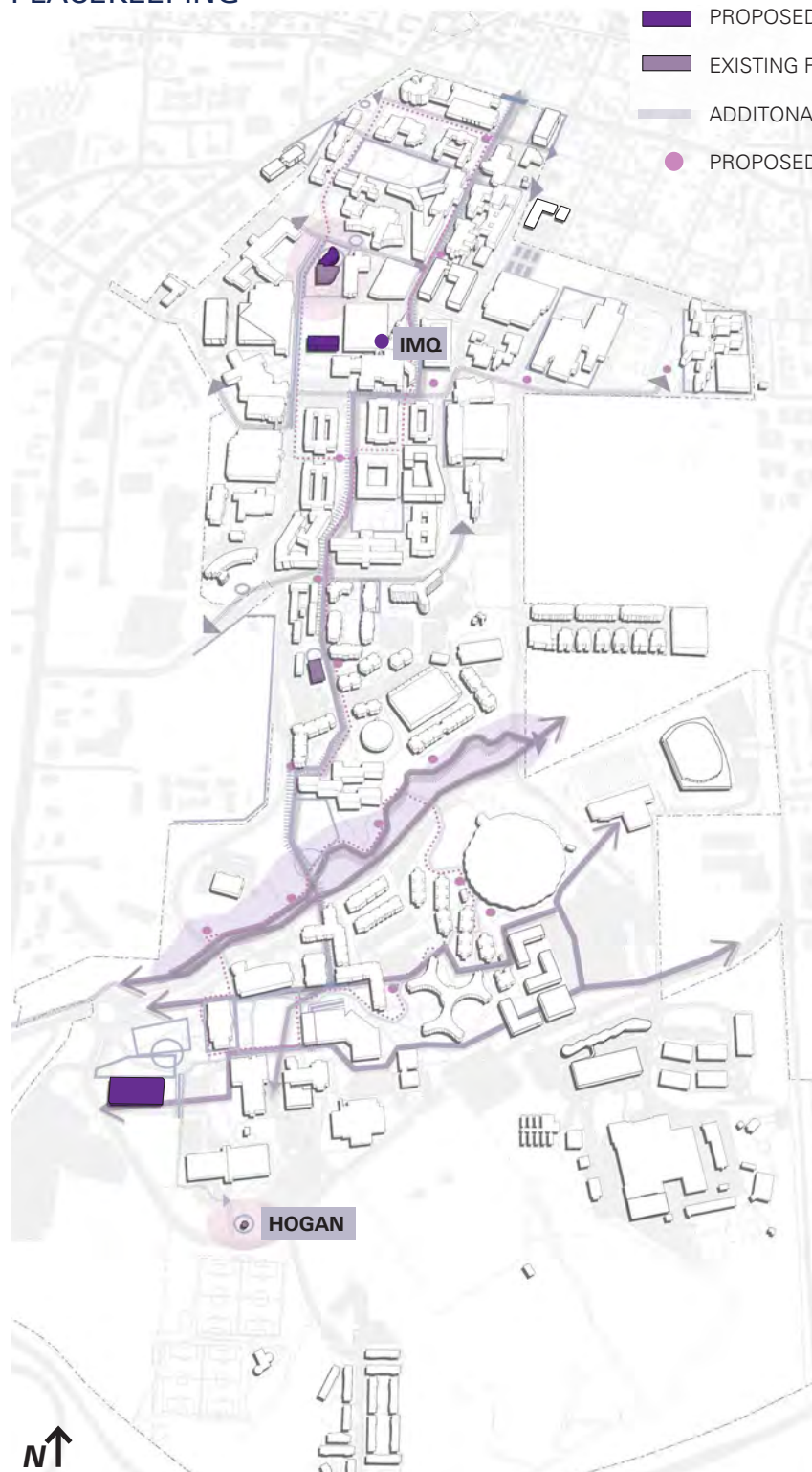
Establishing a south campus support hub ensures convenient access to essential services regardless of a student's location on campus. With a north and south hub in place, students can easily access resources such as academic advising, career services, health services, counseling, and other administrative support. This decentralized approach brings vital services closer to students, reducing the need to travel long distances and saves time. It promotes accessibility and inclusivity, especially for those residing in different parts of the campus. These hubs demonstrate commitment to student success, ensuring support is readily available to address student's diverse needs and empowering them to thrive academically, professionally, and personally.

STUDENT HOUSING



Improved housing with minimal demolition and implementing renovations allows for the preservation of existing residence halls while ensuring these buildings meet the evolving needs and expectations of students. Renovations to systems and aesthetics enhance the living experience, address outdated facilities and improve the overall comfort and functionality of housing. By adding up to 1,000 apartment beds through two phases, The Plan aims to fill the current deficit for on campus student housing. Improved housing not only enhances the quality of student life but also contributes to a sense of belonging, well-being, and academic success by providing a safe and comfortable living environment.

EQUITY + INDIGENOUS PLACEKEEPING



Equity ensures fairness, inclusivity and equal opportunities for all members of the university community. Prioritizing equity, NAU fosters an environment where individuals from diverse backgrounds, including different races, ethnicities, genders, abilities, and socio-economic statuses, feel valued, respected, and supported. Equity eliminates barriers and discrimination, promoting a level playing field where every student, faculty, and staff member has the opportunity to thrive and succeed. It is crucial for NAU to address historical and systemic inequities, creating a campus culture that celebrates diversity and actively works to dismantle biases. This Plan places a focus on equity by increasing the buildings and programs focused around it.

Previous Plans Summary

Previous plans and studies have evaluated campus building and facility needs. Assessments occurred over time, and many fall within the 2020 - 2023 Facility Condition Assessment Reports.

Specific to this topic:

- Flagstaff Campus Master Plan (2010)
- NAU Library Master Plan (2021)
- 2020 - 2023 Facility Condition Assessment Reports

The plans identified issues of campus buildings, including deferred maintenance costs, aging infrastructure, underutilized space, accessibility concerns, and energy inefficiencies. These studies aim to enhance the university's overall infrastructure and learning environment. The Facility Condition Assessment Report provided an evaluation of existing maintenance challenges, while the Library Master Plan focused on transforming to flexible spaces, technology, and resources. These plans aimed to address immediate repair needs and meet the needs of the university community, with an enriching academic experience.

FLAGSTAFF CAMPUS 2010 MASTER PLAN

The 2010 Master Plan focused on enhancing the buildings and facilities on campus, and aimed to address the growing needs of the university community by improving existing structures, constructing new buildings, and facilities. The emphasis was on sustainability, accessibility, and modernization, with a particular focus on upgrading technology infrastructure, ensuring energy efficiency, and providing adequate space for academic, recreational, and administrative purposes. The Master Plan aimed to create an environment that promotes learning and research while accommodating the university's evolving needs.

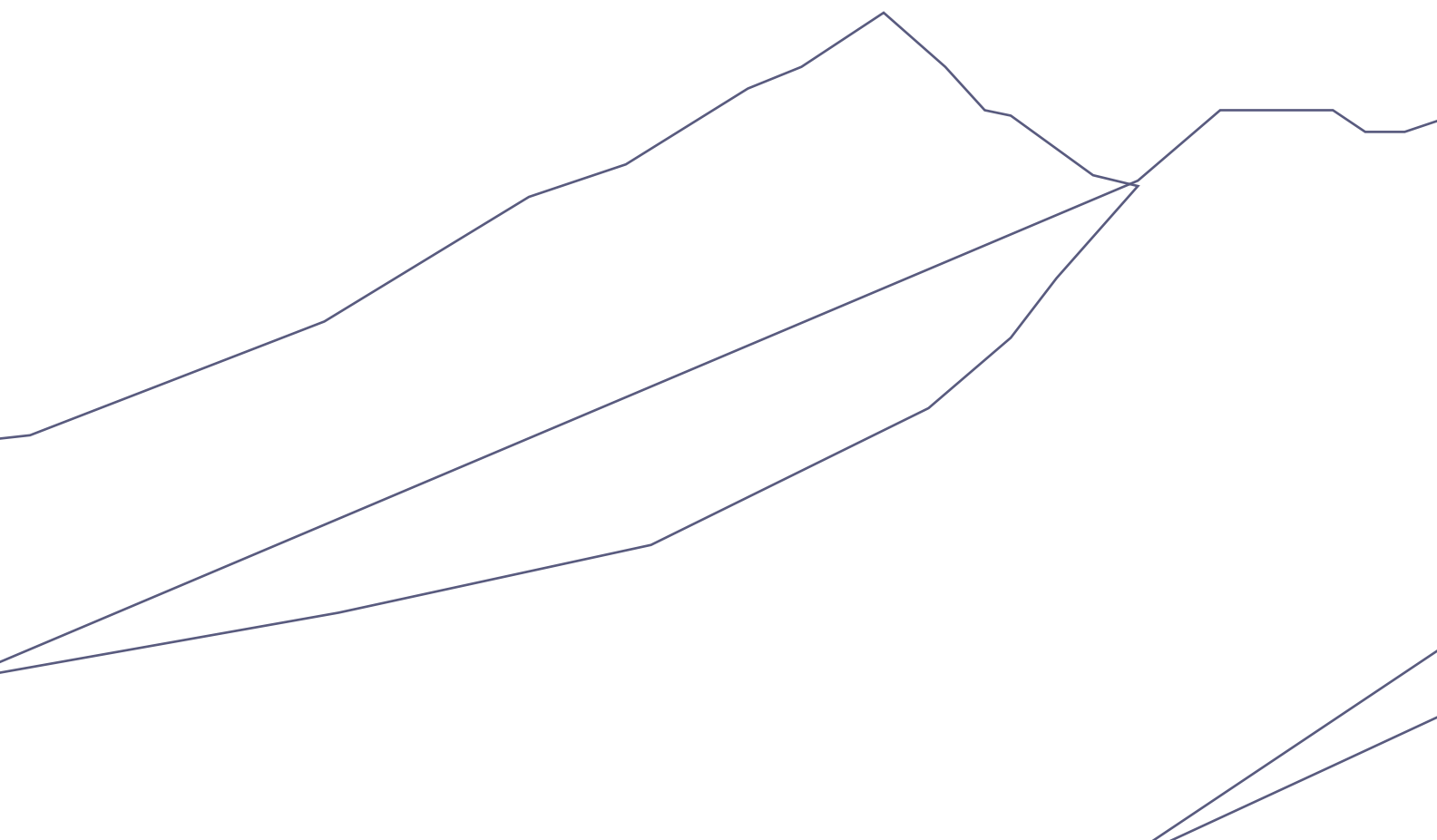
2021 LIBRARY MASTER PLAN

The 2021 Library Master Plan looked at transforming the university's library facilities to meet the changing needs of students and faculty. The plan suggested a major relocation of Special Collections and Archives (SCA) to engage with the university and broader communities as well as a consolidation of the MakerLab and Studios into a Creative Commons. Both of these projects are currently located at the front of the building and would open up this space to make it more welcoming and inclusive. Also, a state-of-the-art collection space for SCA with environmental controls was included in the Plan along with the demolition of the 1960s and 1980s sections of the building to create more functional and environmentally sustainable space and infrastructure.

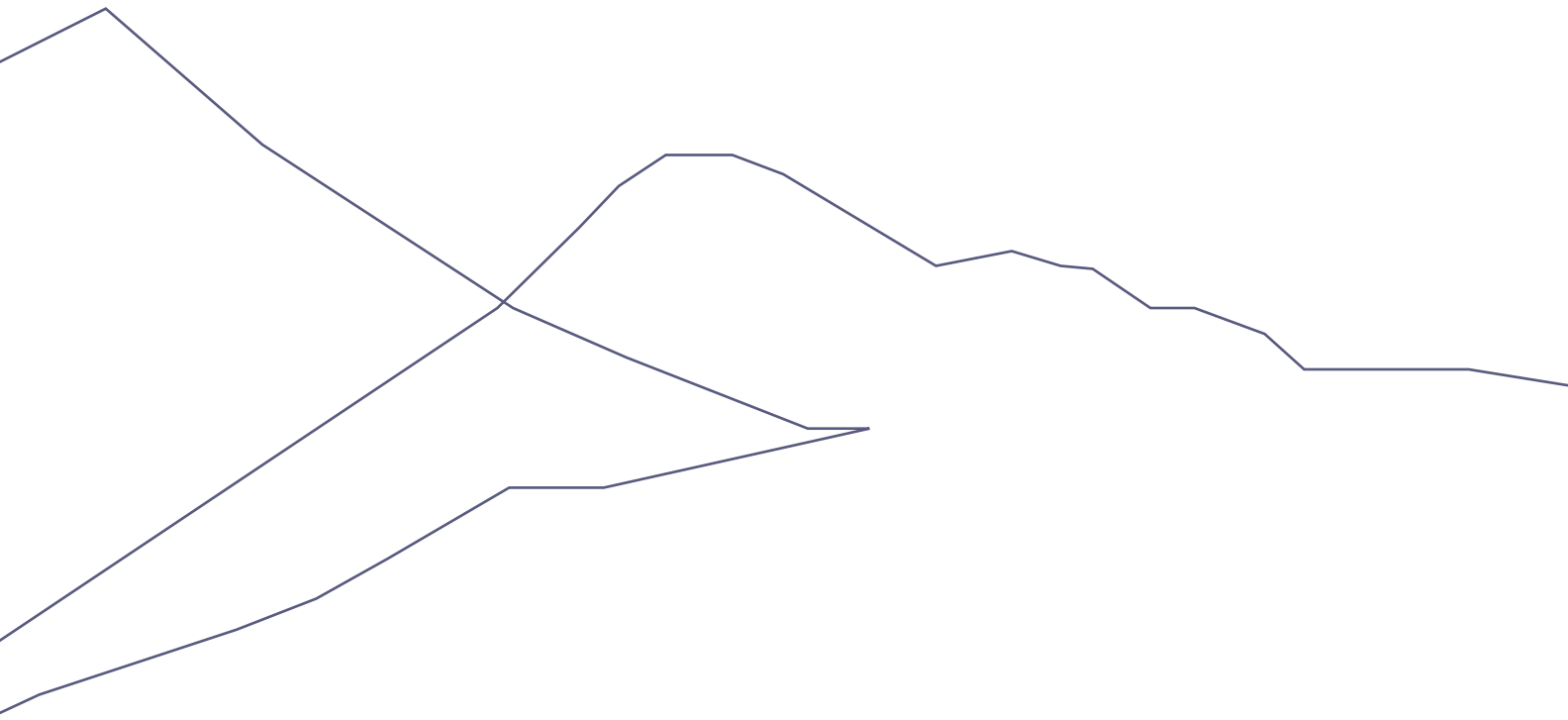
2022 FACILITY CONDITION ASSESSMENT REPORT

This report identified existing maintenance and infrastructure challenges, highlighting areas that required immediate attention. It assessed the aging infrastructure, identified necessary repairs and renovations, and outlined the financial implications of addressing these issues. The report served as a roadmap for prioritizing facility improvements, ensuring the safety, functionality, and longevity of the university's buildings. It highlighted the need for strategic planning and resource allocation to maintain and enhance the overall condition of the campus facilities.

04



Student Life



Student life and campus living is a crucial asset for NAU, playing a significant role in student recruitment, retention, and community building.

The university recognizes that auxiliary operations, including housing, are essential for its long-term financial sustainability. This Plan acknowledges and aims to address deferred maintenance issues within existing housing over time. Overall student satisfaction with campus living is high, and there is a limited supply of affordable housing in the off-campus market, leading to a growing interest among upper-division students to return to on-campus living. This Plan and NAU explore the possibility of providing housing support for faculty and staff. The Plan assumes, based on a spring 2023 housing demand analysis, demand for up to 1,000 new apartment style beds with the need for renovations to existing buildings and taking certain buildings offline.

NAU has an adequate capacity, variety, and distribution of dining services across campus, which generate strong revenue for the University. However, there are infrastructure issues in the University Union's food service area, including kitchen size. The Du Bois Center renovation, 2017, was successful but additional capacity is still needed to serve a growing campus population. The University Union lacks student-oriented spaces such as lounges, study areas, and dedicated student organization spaces. This Plan suggests undertaking a comprehensive renovation of the University Union to address programmatic and aesthetic deficits. The future of additional dining options should consider the type and location of new housing developments. Another critical component of student life is

comprehensive wellness. This includes supporting students' mental and physical health with counseling resources and recreational spaces. Demand for counseling services has increased since the Covid-19 pandemic and is anticipated to continue to rise as stigma around receiving counseling decreases. The Plan proposes distributed counseling resources across campus to "meet students where they are" and make sure any and all students can get the help they need. These services are proposed within a new satellite recreation facility on South Campus. This facility will help alleviate competing demands from athletics and student recreational users that currently plague Rolle Activity Center.

"As a university that serves first generation college students as well as minorities, it is important to consider who NAU students are, and how the university is serving them to achieve their academic goals. Meeting basic needs is an essential component to academic success and overall wellbeing for students."

- NAU Faculty Member

Climate Action Plan Priorities

In respect to student life and wellness, the NAU Climate Action Plan recommends:

NAU Flagstaff Mountain Campus will be a campus community whose academics, research and operations collaborate to address climate change adaptation and mitigation. This Plan's development engages university administration, faculty, staff, operations, and students to identify the best means of expanding university climate adaptation and mitigation activities and programs. This Plan uses current information to establish consensus support for programs and initiatives and an administrative structure to further guide the transition of campus culture in support of climate change adaptation and mitigation by activating a living laboratory concept.



RESOURCE EFFICIENCY

NAU Flagstaff Mountain Campus will align and collaborate with the City of Flagstaff to meet university and city climate goals and objectives. In the *Climate Action and Adaptation Plan* (CAAP) (2018), the city stated its vision for 80% carbon reduction by 2050 through climate change mitigation and adaptation actions, prompting revision to the 2018 city CAAP to shift the net zero carbon emissions date to 2030 revisions to the city CAAP. NAU is participating in this update and the NAU CAP will work to find alignment with city goals and activities as articulated in its 2018 plan and subsequent updates and plans.

Reduce the volume of waste associated with university dining.

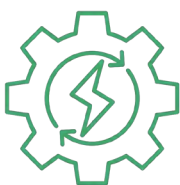


CULTURE OF SUSTAINABILITY

Resolve the university's food and housing insecurities.

Provide for the public's health during an epidemic or pandemic

Increase campus and community social well-being: promote equity by ensuring that each university program, policy and standard practice undertaken to reduce campus greenhouse gas emissions is free from bias in its impact.



CARBON NEUTRALITY

Community resilience suggested that the Flagstaff Mountain Campus divest from fossil fuels, better address justice and equity, address food and housing insecurity on campus and ensure that CAP measures avoid disproportionate impact on vulnerable populations.

Housing Recommendations

During interaction with NAU's leadership and housing officers and based on a review of the existing conditions, the following strategic issues were identified with respect to Campus Living:

- Campus Living is a strategic asset for NAU aiding in recruitment, retention, community building, and student success.
- Availability of on-campus housing is very important to NAU students as the off-campus market in Flagstaff is very expensive.
- NAU will not introduce a residency requirement for any class in the foreseeable future.
- NAU will likely need additional housing capacity due to growing interest by upper-division students returning to campus housing after living off campus.
- The university administration expressed interest in providing more residential options to graduate students and students with families.
- In addition to student housing, NAU views potential workforce housing support as a critical faculty/staff recruitment and retention asset.
- Growth of the auxiliary income, including housing, is vitally important to NAU's financial sustainability due to declines in tuition revenues.
- Future housing should consider density of living communities, should NAU incur unexpected growth of the Flagstaff campus.

KEY POINTS:

- **Minimal Demolition**
- **Ongoing Renovations.** All campus living communities will have ongoing renovations to systems and aesthetics
- **Filling the demand.** Additional 500+ apartment beds added to open sites. (In two phases, up to 1,200 beds, as demand arises)
- **Consideration of faculty/staff housing** over time to mitigate the on-growing Flagstaff housing market rising.

Quantitative data analysis indicated NAU should add up to 1,200 new student beds due to current need. These beds will address the additional demand by upper-division undergraduate students (primarily juniors and seniors) and graduate students who cannot find affordable off-campus accommodations and, therefore, seek to return to on-campus housing. Any potential renovations causing de-densification of the existing residential facilities will add to the deficit.

With respect to the unit types for additional housing, NAU should focus on apartment-style units (units with full kitchens) due to the additional demand being generated by upper-division students seeking higher amenity levels. In addition, single-occupancy bedrooms should make up the majority of the new offerings as the target market is typically willing to pay some premium for privacy. Some double-occupancy may be considered to offer lower price points.

Mixed Use Complex
200 Apartment Beds

LEGEND

- EXISTING HOUSING
- PROPOSED HOUSING
- EXISTING DINING LOCATION
- RENOVATED OR NEW DINING LOCATION

DINING TYPES

- MARKET/CONVENIENCE
- GRAB AND GO RETAIL
- TRADITIONAL ALL YOU CARE TO EAT
- CAFE
- FULL-SERVICE RESTAURANT

**Central Campus
Student Complex**
500 Apartment Beds

**South Campus
Housing Village**
500 Apartment Beds



NORTHERN ARIZONA UNIVERSITY

04-5

Unions and Dining Recommendations

KEY POINTS:

- **Strengths.** There is good capacity, variety, and distribution of dining services across campus.
- **Demand.** There will need to be additional dining tied to new housing projects and south campus locations.
- **Address food service infrastructure** issues at the University Union, including kitchen size.
- **Du Bois Ballroom Renovation.**
- **University Union is a hub of student life** but lacks student-oriented spaces: lounges, study areas, dedicated student organization space, etc.

Conversations with NAU's leaders and the review of previous studies and existing campus documents revealed the following strategic issues:

- Campus-wide dining capacity and distribution appear sufficient to serve students (University Union second level seating is currently underutilized suggesting additional patron capacity).
- The offerings of community and retail dining services appear well balanced, especially when supplemented by the mobile/delivery services.
- Food service faces a number of infrastructure-related challenges in the University Union, including small sizes of the production kitchen and loading dock as well as old equipment.

- The Du Bois Center renovation, completed in 2015, was very successful and well received by the campus community. Future improvements to the Hot Spot should match the quality achieved at the Du Bois Center.
- Food service and conferencing business are profitable to the university, which is very important to the long-term financial sustainability of the institution.
- The University Union is currently very transactional (limited study and lounge space and no dedicated student organization space) and needs to become more student oriented in the future.
- The 2019 Strategic Space Study suggested shortage of study space and lounges on campus, further reinforcing the notion of necessary programmatic improvements to NAU's offerings, including those in the University Union. Furthermore, any future improvements to the facility should be driven by a master plan assuring a consistent long-term strategy.
- Update of the University Fieldhouse to increase use and provide more activity on campus.
- Addition of new Student Pavilion on existing parking P16 to increase available space for student events and activities, engagement opportunities, and student organizations.

New Student Pavilion
Additional Student Space

Du Bouis Addition
Expanded dining space

**South Complex
Housing Village**
New dining options

- DINING**
- NEW UNIONS + DINING
 - EXISTING UNIONS + DINING
- DINING TYPES**
- MARKET/CONVENIENCE
 - GRAB AND GO RETAIL
 - TRADITIONAL ALL YOU CARE TO EAT
 - CAFE
 - FULL-SERVICE RESTAURANT



UNIVERSITY UNION

The university should consider a comprehensive renovation of the University Union including the following key improvements and new program element:

- The Hot Spot renovation (improve outside queuing area/access, seating arrangements and serverly, expand kitchen and other back-of the house facilities)
- Provide student-oriented spaces such as dedicated lounges and study areas, beyond food area seating and consider more specific usage areas for popular activities such as E-Gaming
- Evaluate relocation of some administrative/ student support functions out of the University Union and replace them with informal social gathering spaces
- Provide meeting spaces to satisfy the unmet demand by various student clubs and organizations
- Place additional dining options near housing on central campus, especially touch-less convenience kiosks and quick grab options.
- A new Student pavillion addresses a lack of student space on the campus for studying, socializing, and meeting. A new three-story structure will house student space for clubs, organizations, meeting spaces, and lounge space on what is currently lot P13. The new building will be a pavillion-like structure, highly-transparent, with flexible and large open spaces.

While the campus dining demand is currently satisfied with respect to the capacity, distribution and variety of offerings (assuming future renovation of The Hot Spot), some additional offerings should be considered based on the projected growth of on-campus student housing. As the recommendations for new housing include apartment-style units with full kitchens, the additional dining should be delivered in a retail configuration.





Health and Wellness Recommendations

KEY POINTS:

- **Comprehensive wellness** “front and center”
- **Outdoors.** Use outdoor spaces to promote four-season physical activities
- **South campus services.** “meet students where they are”
- **Address the deficit of indoor recreation space** by adding a satellite recreation facility on south campus (within housing community and/or Rolle)

A number of strategic issues were raised during meetings with NAU leadership. The most important ones include:

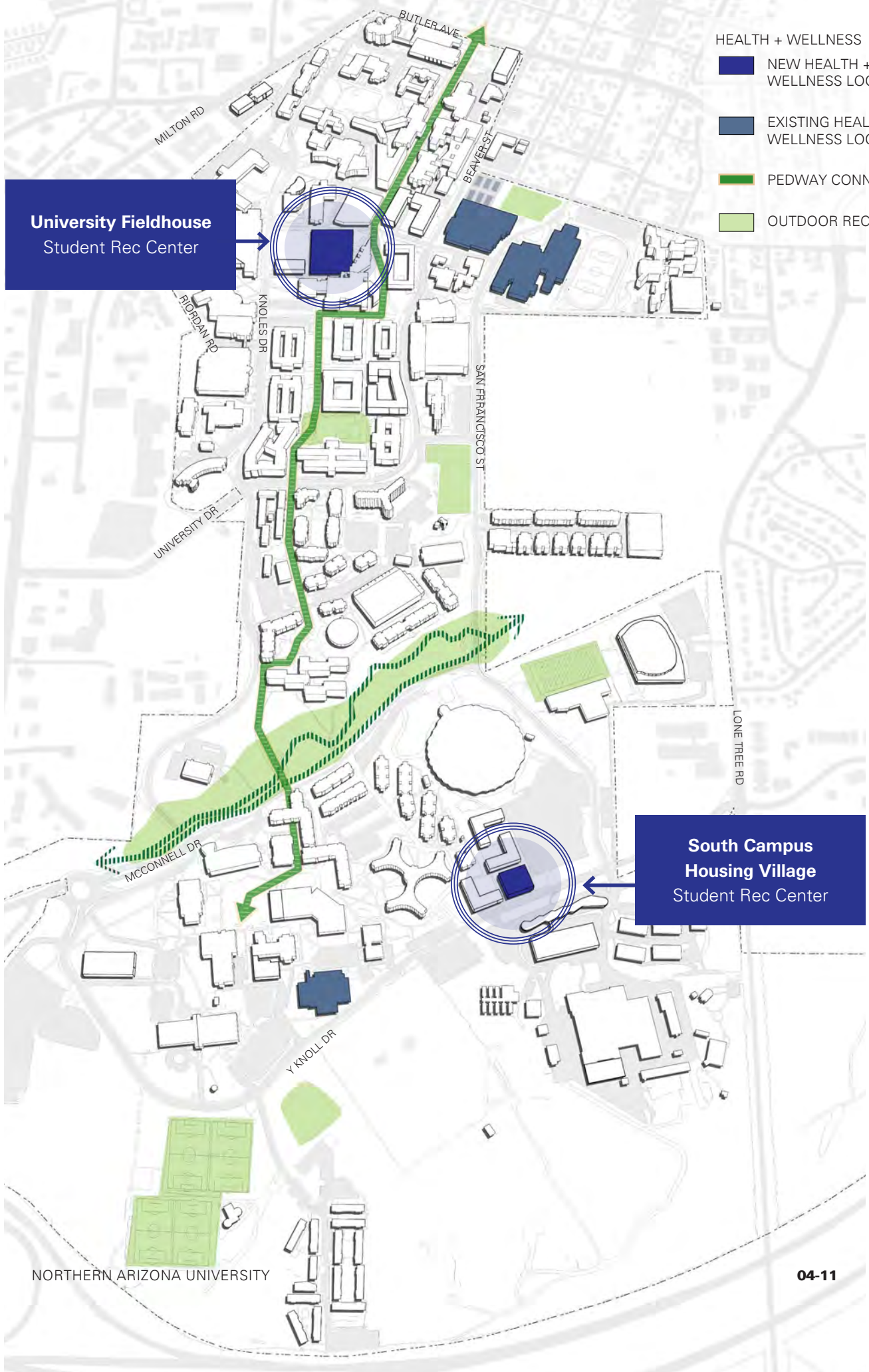
- Wellness is a key initiative for NAU – a comprehensive approach to wellness around its eight dimensions should be “front and center” for the university.
- Mental health is critical to student success and a growing concern for student supporters. There is a strong demand for counseling services at NAU, partly due to limited options in the community.
- NAU strives to promote a preventive, as opposed to a reactive, approach to healthcare.
- Students need to be made aware of available services and the services should be offered at convenient locations: “We need to meet students where they are.”
- The utilization of telehealth is growing, but students still prefer physical appointments.

- Recreational facilities are an important asset for NAU contributing to desired enrollment outcomes (recruitment and retention).
- Community building is another important aspect of the recreational operations helping create a sense of belonging on campus.
- There is a need to develop an intentional approach to serve graduate students with respect to recreation and health.
- There is a shortage of indoor recreation space on campus. The key additional program elements should include basketball courts, weight and fitness areas, multi-purpose rooms, and functional training amenities.

In addition to the administrative input, the planning team conducted a quantitative analysis of recreational space on campus using NIRSA (National Intramural Recreation Sports Association) Guidelines at 10-12 GSF/students. **There is a deficit of approximately 72,000 – 115,000 GSF of indoor recreation space.** Furthermore, The 2019 Strategic Space Study showed demand for additional six (6) mental health counseling offices.

Based on recreational and wellness space analysis, the planning team concluded that NAU should provide a satellite recreation operation on the South Campus to address the space deficit (80,000 – 125,000 GSF). The following key program elements should be included in the new facility: weight and fitness, multipurpose courts and rooms, and functional training areas. This facility should be available to all students, not just those that live in the proposed new housing community.

In addition, NAU should provide counseling services across campus in a distributed model within the new satellite recreation facility and in various on-campus housing locations.



- HEALTH + WELLNESS
- NEW HEALTH + WELLNESS LOCATION
 - EXISTING HEALTH + WELLNESS LOCATION
 - PEDWAY CONNECTION
 - OUTDOOR RECREATION

University Fieldhouse
Student Rec Center

**South Campus
Housing Village**
Student Rec Center

Safety Recommendations

Prior planning efforts did not identify specific safety initiatives. Rather, improved place making, lighting, and circulation proposed in the 2015 Landscape Master Plan and the 2018 Multi-modal Assessment will all support safety. Security upgrades as part of proposed ongoing building renovations also support safety and Crime Prevention Through Environmental Design (CPTED) Design Standards.

SAFETY PRIORITIES

Lighting: Many users raised the issue of pathways that feel dangerous late in the evening due to lack of sufficient lighting. Locations on south campus and along campus edges were most commonly identified as lacking lighting. If the Sinclair Wash Trail is to be used as meaningful campus east-west circulation, it needs to be lit at night and needs to address accessibility issues. The improvements of Sinclair Wash area and inclusion of Indigenous design elements provide opportunity to enhance lighting opportunities and aesthetics. Flagstaff's status as a dark sky community complicates the ability to augment lighting on campus. Furthermore, lighting in the vicinity of the Lowell Observatory must also be minimized to keep the south and southeast of its location free from as much light pollution as possible.

One potential solution to these trade-offs could be a "night walk" that consolidates pedestrian movements at night between buildings that are open late onto a single well-lit path so that overall the dark sky nature of the campus is preserved while still addressing safety concerns.

There are ongoing efforts to replace campus site lighting with LED 10/90 lighting. This is the result of a Dark Sky Coalition and Police Department input on the NAU Lighting Design Guidelines and Standards. Currently, NAU replaces new lights as needed but would benefit from a study and proactive plan

in place to replace lighting effectively without an adjacent project triggering the replacement.

Blue Light Emergency Phones: The issue of non-functional blue light emergency phones was raised, as well as the lack of ability for the NAU Police Department to centrally manage the emergency phones. Each device must be manually checked to ensure functionality. In the future, a cohesive, centralized approach to campus emergency communications will serve safety priorities better. Smartphone apps can replace Blue Light Emergency Phones and would allow for seamless connections to the NAU Police Department that any campus user can use.

Future Building Design: Design for renovation of existing buildings and for new construction on campus needs to incorporate safety considerations. Architecture and design play an important role in making public buildings and spaces feel safer. Effective use of bollards, selection of glass, egress planning, and door hardware can all contribute to perceptions of safety and actual safety for building occupants and visitors. Many new classrooms often include lock down switches that an instructor can push to secure a room quickly without needing to approach the door in preparation for threatening situations. Guidelines and consistency across campus hardware and security protocol generated by emergency management and facilities management leadership can support safety as well.

Smart Campus Elements: The inclusion of smart campus elements, including wayfinding, signage, and transportation options also play into campus safety. The inclusion of campus smartphone apps is another benefit to keep campus users connected and safe.



Previous Plans Summary

Previous plans and studies have evaluated campus buildings and facilities needs. These include:

- Flagstaff Campus Master Plan (2010)
- 2020 - 2023 Facility Condition Assessment Reports

In these plans, the university strived to enrich student life and well-being on campus. The Facility Condition Assessment Report identified maintenance and infrastructure challenges. In alignment with this, the 2010 Master Plan prioritized improving recreational spaces, expanding student organizations and clubs, and enhancing campus amenities. By addressing the facility-related concerns and implementing the strategies outlined in the Master Plan, the university sought to create an environment that promotes social engagement, personal development, and a positive overall student experience at NAU.

FLAGSTAFF CAMPUS 2010 MASTER PLAN

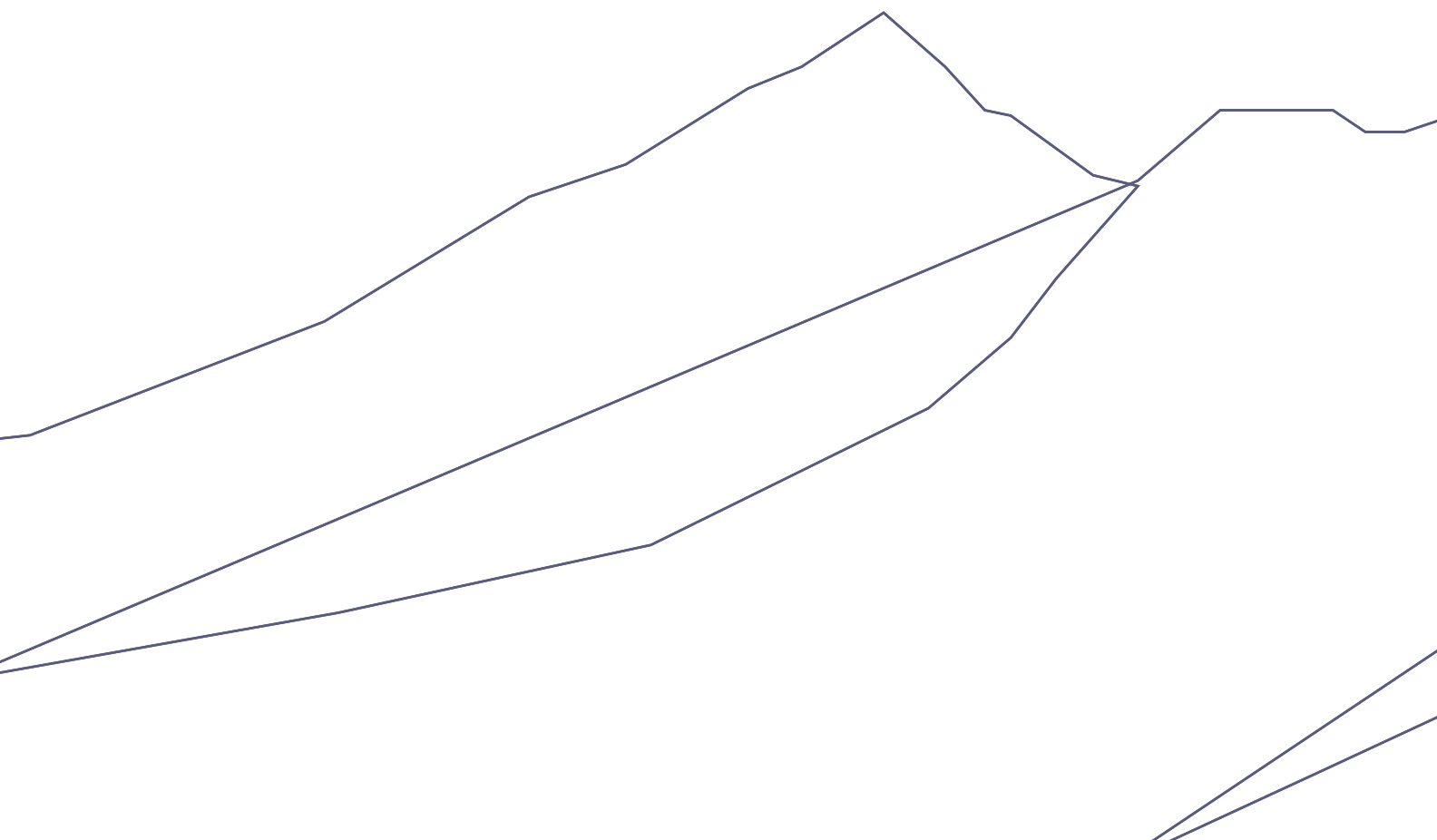
The 2010 Master Plan for the Flagstaff Campus placed a significant emphasis on enhancing student life on campus. It aimed to create a vibrant and inclusive environment that fosters social engagement, personal development, and overall well-being. The Master Plan outlined strategies to improve recreational spaces, expand student organizations and clubs, and enhance campus amenities. It sought to provide students with ample opportunities for extracurricular activities, leadership development, and community involvement. By prioritizing student life enhancements, the 2010 Master Plan aimed to cultivate a supportive and enriching experience for all students at the NAU Flagstaff Campus.

2022 FACILITY CONDITION ASSESSMENT REPORT

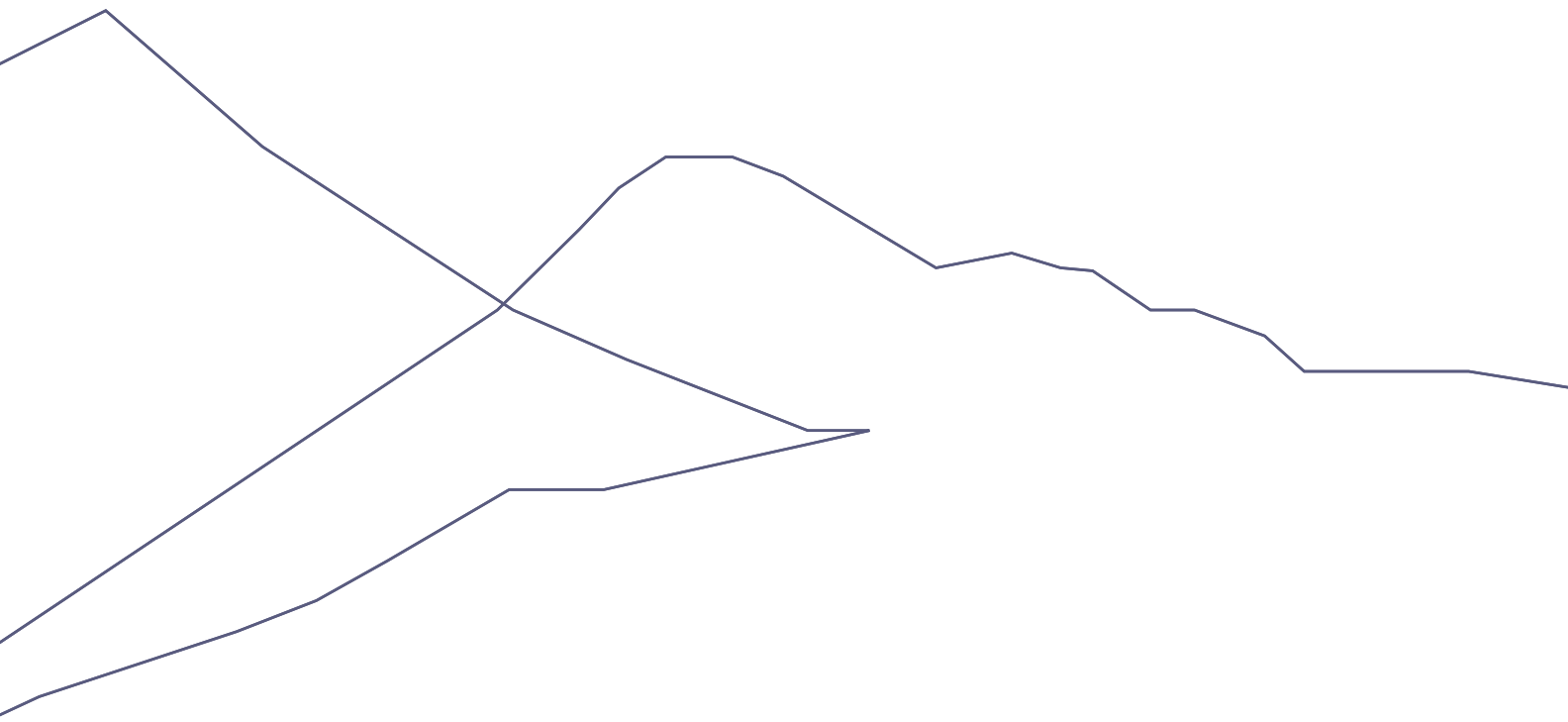
This report provided an evaluation of the condition of the residential and student life buildings on campus. It identified maintenance and infrastructure challenges specific to these buildings, highlighting areas that required immediate attention. It assessed issues such as aging infrastructure, safety concerns, and the need for repairs and renovations. The report aimed to prioritize improvements that would enhance the living experience for students, ensuring safe and functional residential spaces for the student life community.



05



Open Space and Landscape



The Landscape and Open Space of Northern Arizona University are Essential for Immersive Engagement.

Campus landscape and open spaces contribute to the identity of Northern Arizona University and serve diverse functions such as teaching, learning, biodiversity, recreation, outdoor gatherings, relaxation, carbon sequestration, climate adaptation, and cultural expression.

The outdoor spaces throughout campus also play a pivotal role throughout each season. In spring, the landscape blooms with colorful flowers and trees, adding beauty and vibrancy to the surroundings and providing a welcoming environment for outdoor activities. In the summer, the landscape offers shaded areas and tree canopies, providing relief from the heat for recreation and relaxation, and also becomes popular for outdoor pursuits. In the fall, the foliage is showcased with trees displaying vibrant colors and a scenic atmosphere as well as providing cooler temperatures for campus users to enjoy. In the winter, the landscape hosts snow activities and brings a different environment to the campus. It also provides needed functions, like locations for snow storage. Per the 2015 Landscape Master Plan (LMP), the landscape should incorporate species to provide year-round interest and integrate evergreens for structure and ground plane.

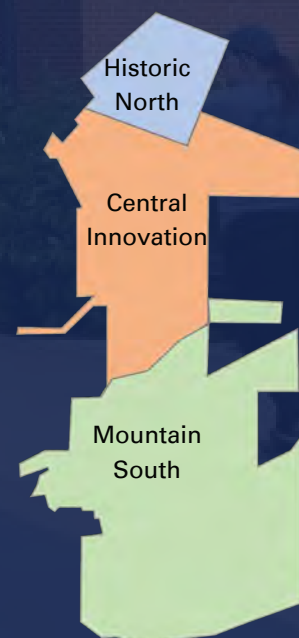
The Master Plan focuses on optimizing the campus outdoor space to create a useful and sustainable environment. Campus landscapes will enhance the user experience, help conserve resources such as water, labor, energy, and promote biodiversity.

The proposed landscape improvements will energize areas that are currently underutilized. By completing the mobility network across campus and connecting all sidewalks and pathways, the campus can become a seamless network that is welcoming and navigable to all who visit.

The organizing spine of the pedestrian network is the campus Pedway. Improvements and points of interest added along the Pedway will enhance the user experience and the campus brand, maximizing the benefit of this unique campus asset.

The landscape also plays a critical role in welcoming visitors to campus, beginning at the campus edge and throughout its space. Enhancing the campus gateways with interesting landscape and intuitive wayfinding provides a cohesive feeling of arrival and destination before even entering the grounds.

The campus character zones, outlined in the 2015 Landscape Master Plan, lend themselves to be enhanced and provide areas of campus to have specific plantings, feelings, and looks. These character zones provide a sense of place when in a specific area of campus and include: Historic North Campus, Central Innovation Campus, and Mountain South Campus.



**CAMPUS LANDSCAPE
CHARACTER ZONES**

Climate Action Plan Priorities

The NAU Climate Action Plan recommends the following initiatives related to campus landscape:

- Local rock and native grasses are the next generation of campus landscape aesthetic.
- Study how manicured lawn areas are used by students and use this to guide use of chemicals and planting strategies. Refrain from intensive lawn maintenance where it is not justified by use patterns.
- Improve metering to generate a reliable understanding of landscape water use and establish a starting point for landscape water use reduction goals and strategies. Expand use of water efficient irrigation systems.
- Assess means of improving campus stormwater management and support improved groundwater recharge. A regional priority, the City of Flagstaff plans to redirect reclaimed water to use as a source for recharge.
- Further invest in forest management as it impacts climate change and is integral to the Flagstaff Mountain Campus. NAU manages both forested land on campus and a forest east of Flagstaff. The Arizona State Land Department granted NAU permission to educate, conduct research and help manage nearly 50,000 Centennial Forest acres. NAU is responsible for generating an inventory and assessment of value for the uses and natural resources in the Centennial Forest at least every 10 years and submit annual operating plans to the Arizona State Land Department. NAU is responsible for submitting a longterm plan for the forest health, restoration, and ecosystem management.



RESOURCE EFFICIENCY

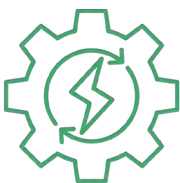
NAU should reduce the footprint of campus managed landscapes, increase use of native and naturalized plants, install and plant materials to reduce heat island effect, and reduce chemical use. Also, the university should employ restorative and regenerative site design and adapt management practices to combat climate change. The University should adhere to the planned water budget with the region's increased water need due to the capital investments anticipated which rely on the community's water supply.



CULTURE OF SUSTAINABILITY

The landscape serves as a research space for establishing native or threatened species, meadow grasses, best practices, stormwater management, environmental education/ biocultural interpretation, soil carbon, above ground carbon management (trees and shrubs), and more.

The Flagstaff Mountain Campus should minimize water use (both potable and reclaimed) in landscape management, eliminate the use of inorganic fertilizers and pesticides, particularly those that have adverse effects on pollinators and beneficial insects, and increase spaces used for gardens, bioswales and naturalized habitats.



CARBON NEUTRALITY

NAU has ongoing projects that contribute to preserving the natural carbon cycle in its forest management and are valued living laboratory experiences. These include: silviculture treatments (regenerating and cultivation of healthy forests), pine needle composting, campus landscape management to promote use of native and naturalized species, inventories of forest plots, and biocrust (communities of living organisms on soil that stabilize the surface) restoration projects. The forest management plans can be used as a framework to lend the university's unique expertise in forest management to other projects, avoiding carbon emissions through forest preservation and increasing sequestration through restoration projects.

PROPOSED OPEN SPACE

KEY POINTS:

Landscape projects on three scales will knit the campus together with interventions supporting experience and sustainability.

Small Projects can be implemented as funding allows and have a big impact across campus. These projects include: The removal of non-functioning turf areas, and increased proportions of native species and biodiverse ecological restoration through turf conversion; landscape surrounding impacted buildings will be improved with any new project; all future landscaping will consider snow holding and removal; and the opportunity for gardens, including indigenous ethnobotanical gardens, indigenous gardens, and interpretative landscaping beyond the arboretum and north quad. These additions will teach about culture and the environment and help to immerse the community via seating and other outdoor gathering spaces.

Medium Projects activate the Pedway and proposed east-west connections.

Large Projects transform open space into programmed and iconic places.

Improved and Utilized Campus Open Space

Proposed open spaces build upon the existing structure defined by the development of the campus. It promotes open spaces that are active and filled with a vibrant lifestyle. These spaces are more organic and unstructured to adapt to student life. Through observations of existing conditions on campus and feedback collection from a variety of campus groups, the following themes emerged:

MODIFY AND IMPROVE CAMPUS LANDSCAPE TO REINFORCE SUSTAINABILITY AND CLIMATE ACTION PLAN GOALS

The Plan aims to enhance sustainability and achieve climate action goals by updating tree inventory data and the tree canopy, promoting sustainability education, conserving water, utilizing Sinclair Wash, analyzing the environmental impact of landscape types, and expanding efficient watering systems. The LMP provides a robust plant palette that should be referenced in any new designs moving forward as it thoughtfully and characteristically selected plants for the campus.

COMPLETE CONTINUOUS MOBILITY NETWORK, FOCUSING ON PEDWAY IMPROVEMENTS

As changes to the campus occur, it is important to not only add new but also enhance existing connections in the mobility network. The Pedway is an important connecting element that intertwines both internal and external outlets.

IMPROVE UNDERUTILIZED OUTDOOR SPACES

The creation of flexible and diverse areas that connect users to their environment will improve utilization. The landscape offers many opportunities for change that reflect lower costs and higher impact than building projects, while aligning with institutional goals, like those from the Climate Action Plan. Improving outdoor spaces, especially along the Pedway, enhances social interactions, facilitates informal learning environments, promotes physical and mental well-being, fosters creativity and cultural expression, and creates inviting and functional areas that contribute to a vibrant campus community.

ENHANCE THE CAMPUS EDGE

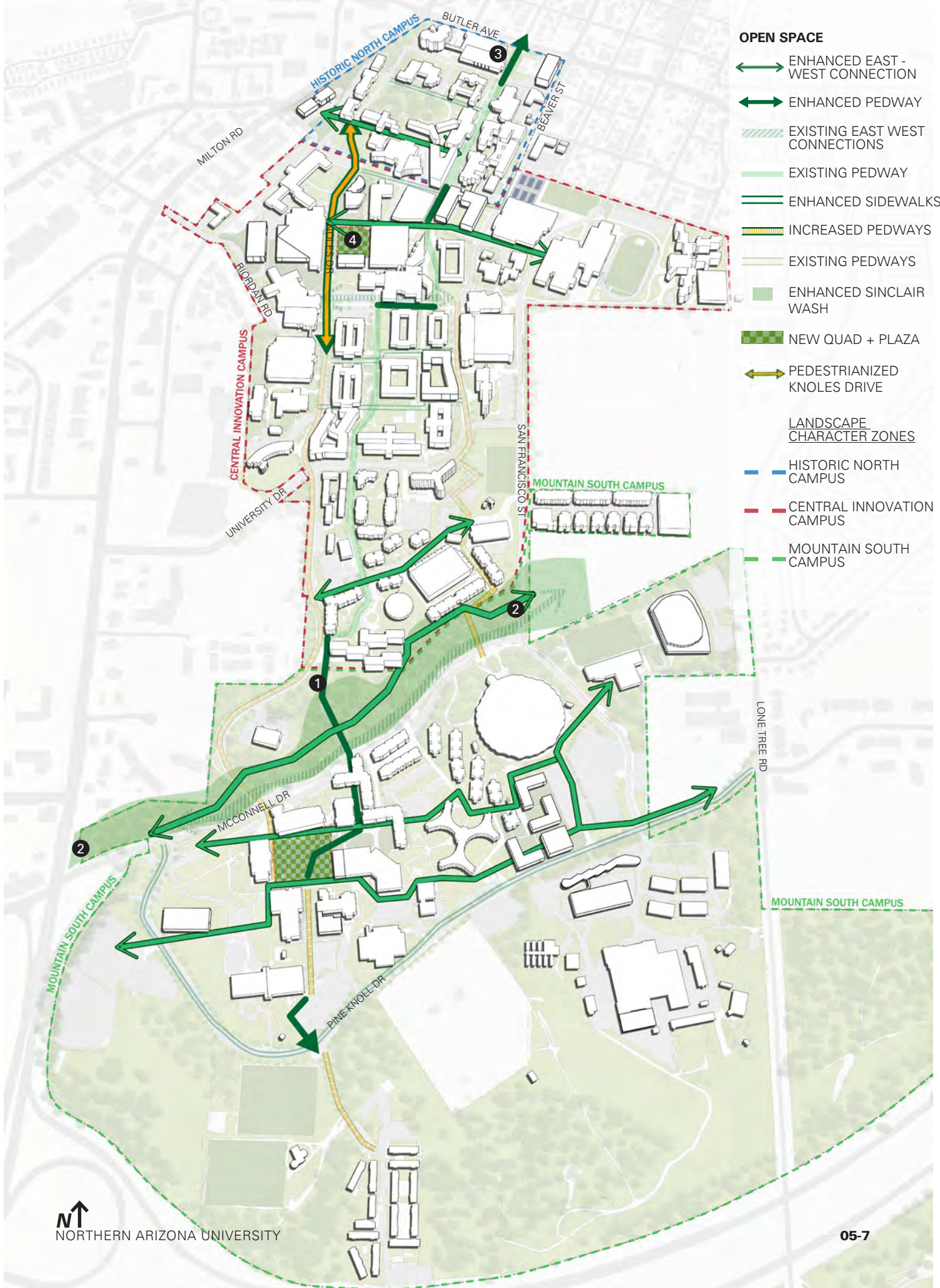
The goal for the campus edge in the Plan is to improve wayfinding, signage, and landscape treatments to create clear gateways that reflect NAU's brand and welcome anyone to campus. Improved campus landscapes will utilize consistent materials and designs, maintain continuity with surrounding neighborhoods, incorporate indigenous designs, and use native materials. Working with the City of Flagstaff to improve connections adjacent to campus will be important for the future as well.

Landscape and Open Space Recommendations

STRENGTHENING THE PEDWAY

- 1. Pedway Improvements:** As discussed in the multimodal chapter, the Pedway is a spine for seamless movement throughout campus. Improvements enhance pathways that connect the neighboring communities to and through campus, and regional circulation networks, as well as increase the future flexibility of the mobility network by optimizing site use and safety. The new Pedway will remove gaps in accessibility, using barrier-free design strategies with widened paths where possible, and accessible seating areas. Specific areas of the Pedway include a strengthened pathway to south campus, east-west connections that feel cohesive between the HLC and Cline Library, the Bookstore and Performing and Fine Arts, and P62 and Lone Tree.
- 2. Connection to Flagstaff Urban Trails System (FUTS):** The enhanced plan also provides accessibility to active transportation options and connects to off-campus mobility networks, including FUTS, by extending the current trails to the edges of campus. The Sinclair Wash is a major connection point that will be improved.
- 3. Humphreys Street:** As NAU acquires property, there is potential to transition Humphreys Street into a pedestrian portal onto campus, connecting into the Pedway south of Dupont Avenue. With the opportunity, this area will become a landscaped entry that welcomes visitors to campus and enhances the streetscape.
- 4. Library Plaza:** This area is a dynamic, new campus open space between the renovated Cline Library, the renovated Fieldhouse, and NACC that transforms a previous parking lot into an active open space designed for formal and informal outdoor programming and activities.



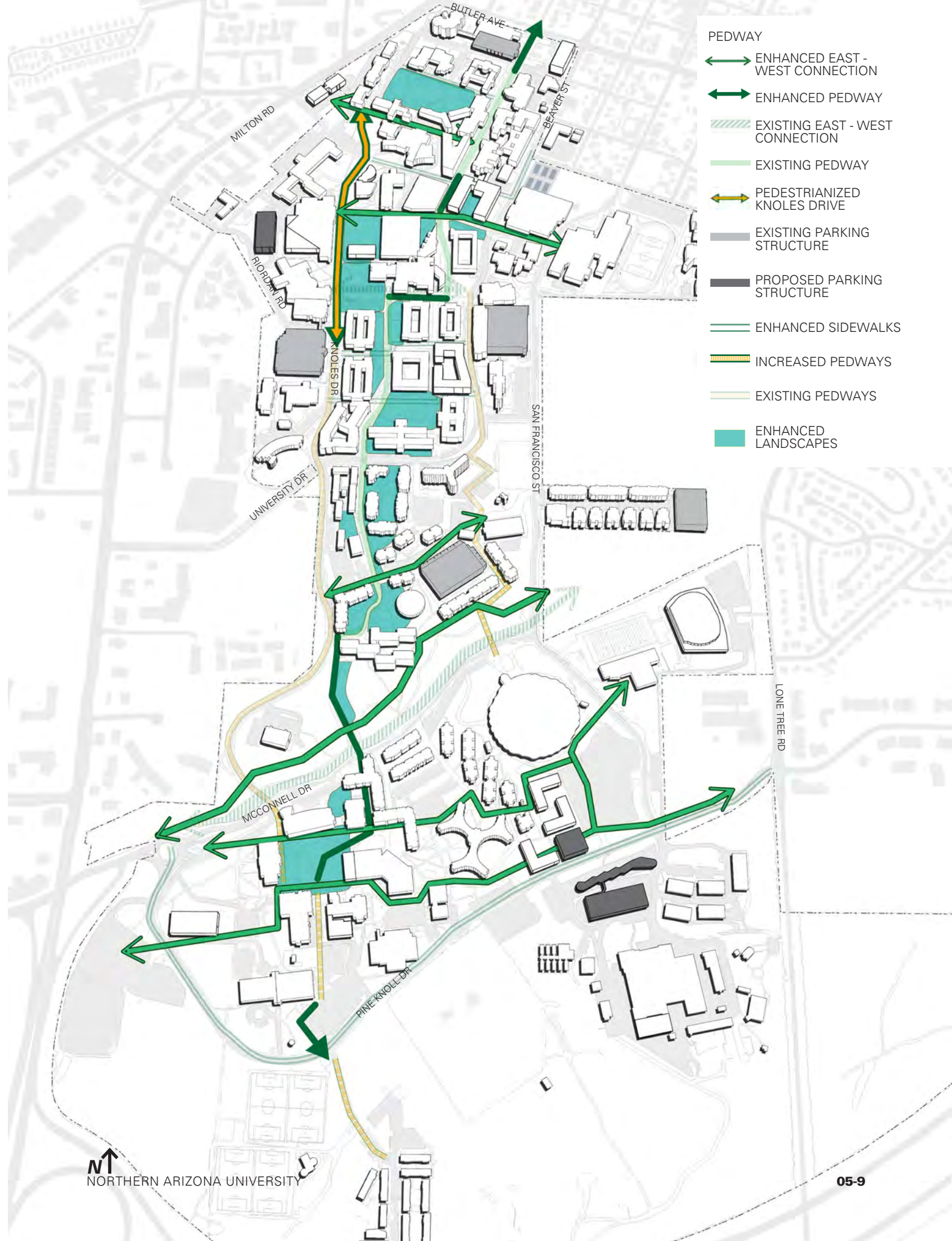


THE PEDWAY TOOLKIT

The 2018 Placemaking Study requested the next plan “focus on the landscape and open spaces in creative ways that bring solutions.” Along the Pedway, a toolkit for open spaces along the spine of campus provides a new role for the pathway as a gathering space.

It does this by accomplishing the following:

- Improves underutilized outdoor spaces along the Pedway, especially near buildings and existing shared spaces.
- Provides flexible, various-sized outdoor spaces including quads, plazas, courtyards, and nodes that encourage social gatherings and informal outdoor learning environments (with power and Wi-Fi).
- Provides shareable outdoor spaces for increased learning and collaborative opportunities.
- Provides accessible outdoor areas for physical activity, mental restoration, or spiritual rejuvenation. Connection to nature can reduce stress and increase productivity.
- Provides nodes for cultural displays and art in prominent areas along the Pedway.
- Incorporates visually discreet snow storage areas (preferably in turf, native grass meadows, and stormwater basins) and avoids stormwater and snow storage in social gathering areas.
- Bioswales provide multiple purposes of landscape along the spine, but also functionally by collecting stormwater, and provide areas for snow storage during winter months.



PEDWAY

- ←→ ENHANCED EAST - WEST CONNECTION
- ↔ ENHANCED PEDWAY
- ▨ EXISTING EAST - WEST CONNECTION
- EXISTING PEDWAY
- ↔ PEDESTRIANIZED KNOLES DRIVE
- ▨ EXISTING PARKING STRUCTURE
- ▨ PROPOSED PARKING STRUCTURE
- ENHANCED SIDEWALKS
- ▨ INCREASED PEDWAYS
- ▨ EXISTING PEDWAYS
- ENHANCED LANDSCAPES

The Pedway toolkit also utilizes the following improvements to amenities, systems, and space types:

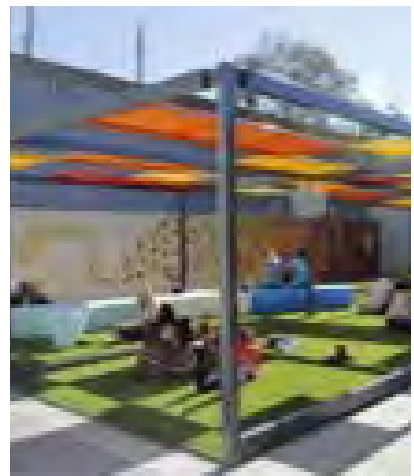
- Power, outlets, Wi-Fi,
- Addition of more shade - natural or structured,
- Streetscape improvements,
- Flexible furniture options,
- Removal of unnecessary turf,
- Creation of moments to pause and rest/gather,
- Deliver amenities and programming along the Pedway spine,
- Development of destinations, such as minor additions to residential halls,
- Monuments and wayfinding that make navigating campus and direction clear,
- Placement of public art creates “meet me at the X” moments,
- Provide covered bike parking and alternative mobility parking along the Pedway to encourage less single occupancy vehicle use.

As further discussed in the Cultural Interpretive Chapter, the Pedway is another opportunity for Indigenous designs to be applied on campus. The main elements incorporate the proposed sovereignty path with cultural signifiers, including native vegetation, cultural and language opportunities, artwork, and a walk of nations. These upgrades along the Pedway also help connect the Native American Cultural Center and the Hogan.

Note that it is suggested to relocate the SLUGG Garden to the open space in front of the new proposed Social and Behavioral Science replacement building.



Pedway Toolkit - Seating Options



Pedway Toolkit - Shade



Pedway Toolkit - Power



The Pedway today



Proposed Pedway enhanced space between buildings, increased greenspace, added seating and gathering locations.

EAST- WEST CONNECTIONS

East-west connections are critical to functionality and the pedestrian experiences on campus. The design for these important movements create a hierarchy of walks and landscaped paths that delineate clear and intuitive routes for campus users.

Sinclair Wash

The Sinclair Wash is an extremely important feature of campus as a regionally significant stormwater conveyance, a riparian area, a threshold, and a linear pedestrian space. The Plan focuses on establishing native grasses, wetland plants, and the control of weed species to create a beautiful and recognizable natural habitat that that feels safe and utilized.

State Trust Land (P62) to the South Quad

(somewhat includes the McConnell Entry LMP connections) Improve the experience from a highly used parking lot and campus entry through enhanced landscape character, increased sidewalks, and landscaping.

Cline Library to the Health Learning Center

(Includes McCreary Drive Connector) The McCreary Drive Corridor is an important east-west pedestrian and vehicular link that connects the west edge of the campus to the Student Union. Improvements to the corridor focus on plant density and amplifying the established landscape character.

Objectives include: Enhance plantings to celebrate the arrival to the Student Union Plaza. Improve the level of pedestrian amenities such as furnishings and sit able environments.

Performing Arts to The Bookstore

(Route includes the previous Student Union Connector and Fieldhouse Parking Connection) Accommodate pedestrians, bicycles, and service vehicles while creating pedestrian mall character.

Elements: treed median to separate pedestrians and vehicles, social space with shade at Wedge, and replace pavers and landscaping at south entry
Concept from LMP: "The Student Union Connector is the most formal of the East/West Campus connectors. This linear space is lined with formal trees and understory plantings. The design of this linear space allows for multiple modes of transportation ... while maintaining the character of a pedestrian mall."

Objectives: Transform existing service street into a pedestrian mall that accommodates service and emergency vehicles, which create a distinct and formal pedestrian zone.

South Quad to east of Du Bois

The South Quad improvements will improve pedestrian, service and emergency circulation, while capitalizing on the mountain views and improving aesthetics and design of the space.

East of Du Bois to Kinsey and High Performance Center

(Includes pedestrian connection of the Du Bois Center to SkyDome from the LMP) The east-west connections through the south campus are critical to both functionality and the pedestrian experience. The design for these important movements create a hierarchy of walks and landscaped paths that delineate clear and intuitive routes to the various destinations.

Objectives include improving movement, restoring and improving the native and domesticated landscapes, and amplifying the mountain views

Skyview to ROTC/Property Administration

Create an environment that promotes social interaction and is expressive and unique in character while providing an improved pedestrian experience.

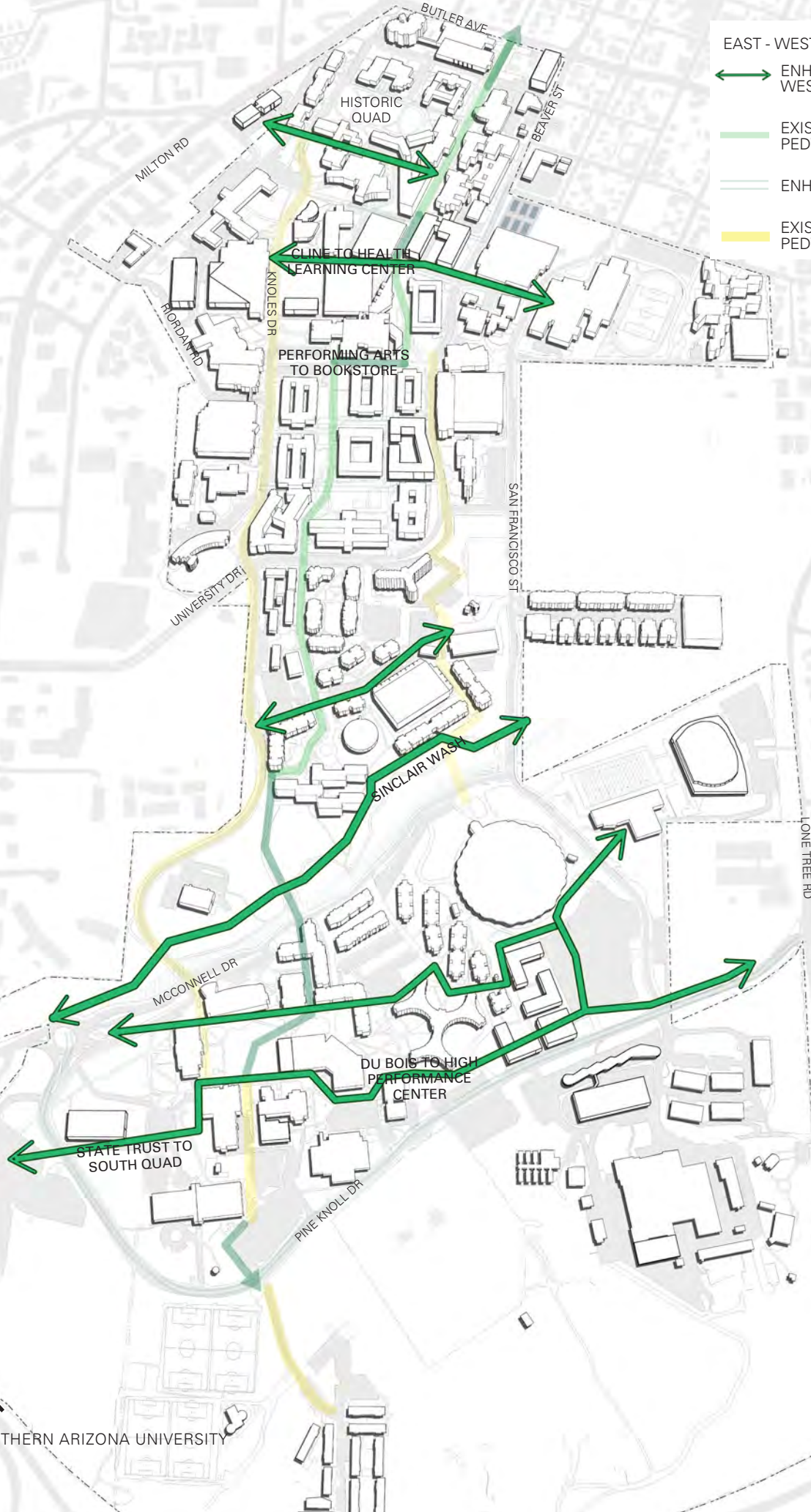
EAST - WEST CONNECTIONS

↔ ENHANCED EAST - WEST CONNECTION

— EXISTING & ENHANCED PEDWAY

— ENHANCED SIDEWALKS

— EXISTING & ENHANCED PEDWAYS



Modify and Improve Campus Landscape to Reinforce Sustainability and Climate Action Plan Goals and Recommendations

Update and maintain current data on existing tree inventory and plan for urban forest replacement/succession – use of software such as ArborPro, TreeKeeper, or iTree. Fill gaps in data and knowledge of the tree inventory to provide health and canopy updates as changes on campus occur. Students can collect data and annually assess tree health, particularly for ‘heritage’ trees, by providing a learning lab on campus.



Example of ArborPro software

Invest in the tree canopy to provide additional shade, especially along Pedway. Calculate the quantity of existing shade (trees and existing buildings) and proposed shade (trees and structured shade enhancements) to serve as passive cooling strategy to adapt to warming temperatures for buildings. Promote sustainability awareness and education, like the the environmental benefits of the campus’ tree inventory (improving air and water quality; carbon dioxide removal; heat mitigation and energy savings).



The University of Texas El Paso lawn and stormwater feature

Conserve water through irrigation, stormwater management, and turf reduction. Design functional stormwater features as amenities. Turf should be removed unless deemed necessary for aesthetics. This should be considered as a metric starting point for the goal of the next decade. Native and drought tolerant plants provide opportunity to indigenize landscaping that will help to conserve water and achieve other goals of indigenizing campus. NAU should take advantage of the significant grant funding opportunities through the state of Arizona becoming available for turf grass conversion.



Pedestrian bridge engages users with stormwater feature



Water-use meter

Expand water-use metering networks and highly efficient watering systems. Approximately 20 acres of the campus are now serviced by ‘smart’ irrigation systems. Establish a baseline as a starting point so landscape water-use reduction can be monitored. Utilize Sinclair Wash as a living laboratory – provide



Images (Left to Right): Collecting water quality data; plant identification walk; outdoor lecture.

learning opportunities regarding stormwater management, water quality, water-savings through appropriate plantings, riparian ecosystems, salt-tolerant plantings at snow storage locations, soil conservation, native plant communities, wildfire risk reduction, etc.

Sinclair Wash can provide monitoring activities and specific reporting to reinforce curricula. This area can provide monitoring of salt usage to limit the impact on adjacent landscapes.



Images (Left to Right): Waste management including compost and recycling; rich compost soil from food and landscape waste.

Establish campus-wide organic matter recycling. Support waste management goals outlined in the 2021 Climate Action Plan, including record keeping data collection for tracking waste minimization, prioritization of waste diversion expansion to construction and demolition, food waste, and municipal solid waste.

Use principles, design standards, and concepts developed in the LMP, including plant lists. Analyze the environmental impact of each landscape type and use that to inform the direction for future installations.

ENHANCE CAMPUS EDGES

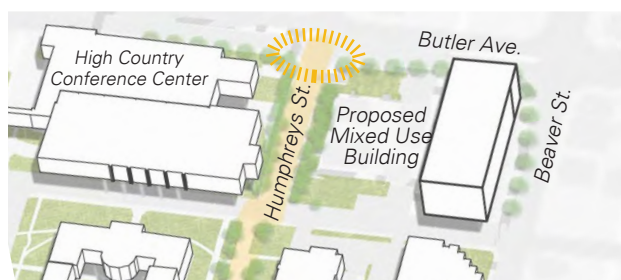
Attractive campus edges and entries will create a sense of arrival and enhance the NAU brand. Improving the campus identity is necessary for future planning.

Design implementations include:

- Elevate and define clear campus gateways and edges with increased wayfinding, signage, and landscape improvements.
- Use gateways as an opportunity to communicate NAU's values and commitments to the public.
- Create campus landmarks with consistent materials and vocabulary drawn from the LMP at all major entry points.
- Utilize gateways to reinforce a sense of continuity with the adjacent neighborhoods that surround the campus while maintaining consistency in design so that campus entry points are clearly defined.
- Incorporate Indigenous designs and representation at key gateways.
- Avoid the use of natural turf at gateways; instead, use native and other low-water-use vegetation.

It is recommended to add landscape improvements at the following nodes to the campus:

- 1. Butler Avenue** These enhanced campus edge improvements include the multiuse building project on this site, as well as the need for an increased intersection on Butler and Beaver. This area also includes the acquisition of land near South Humphreys Street and potential pedestrianization.



Butler Avenue Concept

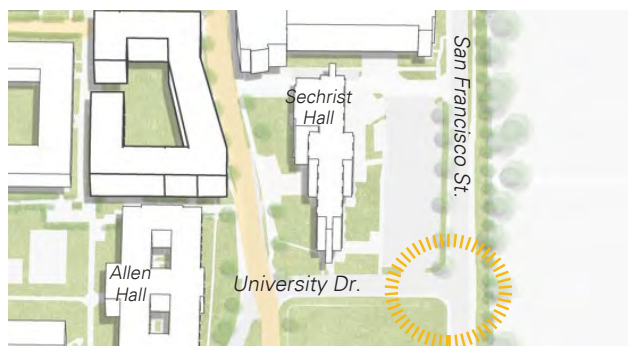


Butler Avenue and Beaver Street Concept



Riordan Road/Knoles Drive Concept

2. **Riordan Road/Knoles Drive** At the proposed Cline Library Parking Structure is a new entry, green open space, and enhanced pedestrian access that benefits from a robust planting palette and signage, per the LMP.



University Drive/San Francisco Street Concept

3. **University Drive/San Francisco Street** While this edge of campus is located directly near many amenities and the heart of a student life area, it is recommended to add signage and/or wayfinding for clarity of crossing into the campus threshold. Also, screening in this location to the cemetery is recommended.



Pine Knoll Drive and Lone Tree Road Concept

4. **Pine Knoll Drive and Lone Tree Road** This campus entry should feel significant, as it is a prime location for accessing the Skydome, the proposed Multimodal Transportation Hub, and other south campus amenities.

- 5. Milton Property** A new intersection that brings entry to the proposed community building as well as new plantings along South Milton Road and the site. The enhanced edge landscaping improvements continue on the Milton Road frontage north to Butler Avenue. The Milton area provides both greenspace and branding opportunities on campus, including Indigenous signage. Currently, winter sledding takes place here, which can be limited with this Plan, if that is the desire of the campus.

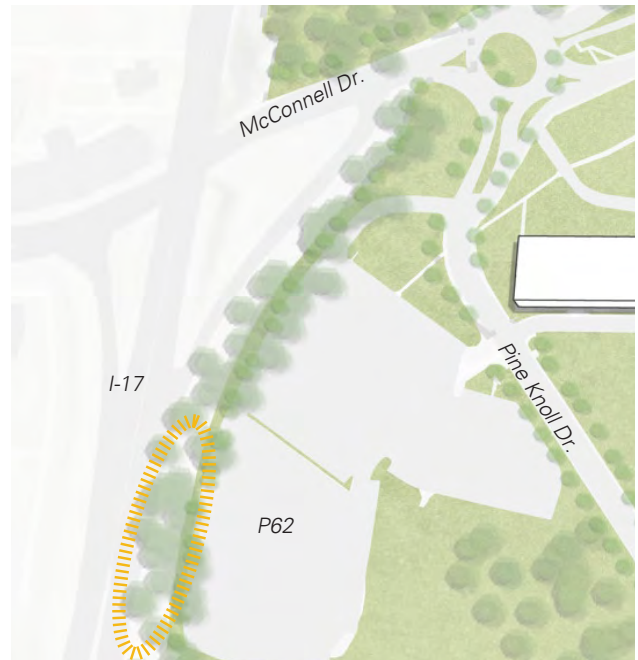


Milton Property Concept



Milton Property Concept

- 6. 1-17 Edge** As proposed in the LMP, the reconfiguration and improvement of the McConnell entry to P62 enhances and accommodates pedestrian/bicycle movements, while also allowing the improvement of the I-17 campus edge. This edge often serves as the first glimpse into the campus for new visitors, and it should feel welcoming and branded to NAU. Since the land is not owned by the university and is part of a land lease, there is not an opportunity to build on it at this time, but enhancing the planting palette and creating a visual entry for campus produces a great benefit over what exists today. A roundabout change from the existing intersection at McConnell creates more seamless traffic flow and wayfinding opportunities for NAU to welcome the community onto campus.



I-17 Edge Concept



I-17 Edge Concept

Scaled Project Recommendations

LARGE LANDSCAPE INTERVENTIONS

Library Plaza: This new Library Plaza presents an incredible opportunity to develop a new outdoor student life hub in the heart of campus. As a space that is inclusive for all, its proximity to the Native American Cultural Center (NACC) provides an opportunity to tie native and Indigenous landscape as a four-season ceremonial space and gathering place for students. This area serves as a commitment to inclusivity, education, and celebration of the Indigenous pride. The Library Plaza will relocate 149 spaces from P13 into a nearby parking structure. This area of campus is heavily congested, and currently pedestrian / vehicle conflicts are present. As mentioned in the Multimodal Chapter, the proposal of closing Knoles during peak hours to single-occupancy vehicles allows for a pedestrian focused area between the major hubs of the Fieldhouse, Union, and Library.



Proposed Library Plaza Rendering



Proposed Library Plaza as it exists today



Pow wow lawn



Indigenous outdoor space



Library Plaza Opportunity



Library Plaza Opportunity Example

South Quad Improvements: The vision of the South Quad is to become a vibrant, student-centered amenity, further activating south campus. In alignment with the 2015 Landscape Master Plan, the objectives remain in place:

1. Improve pedestrian, service and emergency circulation.
2. Create a venue for large community events, concerts, and festivals.
3. Capitalize on the incredible mountain views with new seating areas, overlooks and amenities.
4. Improve on the aesthetics and design of the space.

The design for this quadrangle is centered on a few key concepts that give it form, visual quality and adaptability. The south and east edges of the space offer a vista to the San Francisco Peaks. These edges are composed to capitalize on the views and create an environment that supports events, social gatherings, or just simply sitting and enjoying of the view. The second concept is the quad's capacity to host a wide variety of events, concerts, and game day activities. Design features include terraced lawn steps for passive recreation and amphitheater-style seating, a spruce garden that builds on the existing stand of mature trees, and improved service and emergency vehicle access. The project also provides the opportunity for sustainability efforts to be put on display, through native plantings, bioswales, rain collection, and limitations of turf grass use.



Proposed South Quad Rendering



South Quad as it exists today



Landscape Examples



2015 LMP South Quad Improvements Proposed



South Quad Improvements Implemented

Previous Plans Summary

Previous plans and studies have evaluated campus landscape and open space needs. These include:

- Flagstaff Campus Master Plan (2010)
- Landscape Master Plan (2015)
- Placemaking Workshop Report (2018)
- Landscape Master Plan Report (2022)

NAU open spaces support sustainability through enhancing social connection, learning, mental health, and wellness, providing landscape and ecosystem services, and connecting the NAU community to multimodal transit. Past planning for open spaces have been closely covered in the 2010 Campus Master Plan, the 2015 Landscape Master Plan, and the 2022 Landscape Master Plan Report. In total, these previous plans have outlined over forty (40) open space projects, of which eight (8) have been completed.

FLAGSTAFF CAMPUS 2010 MASTER PLAN

The 2010 Campus Master Plan outlined seven open space projects: 1) Historic Quad Improvements; 2) University Green; 3) “Mixing Bowl” and Amphitheater; 4) South Green; 5) Recreation Fields; 6) South Bowl; 7) Transit Spine.

The Transit Spine, Historic Quad Improvements, and Recreation Field projects have been completed to date. The proposed open space projects in the 2010 Campus Master Plan focus on social connection, recreation, and connectivity.

2015 LANDSCAPE MASTER PLAN

The 2015 Northern Arizona University Landscape Master Plan proposed 27 open space projects, three of which overlap with the 2010 Campus Master Plan. Seven of the proposed projects have been completed. The 2015 Landscape Master Plan sets out two main functions of open space: social space and settings. Social spaces are meant to support and connect the NAU community. Settings are meant to provide a sense of place and general character through landscape and design. With this framework, the 2015 Landscape Master Plan details unique character zones of the NAU campus – Historic North Campus, Central Innovation Campus, and Mountain South Campus. Each of these zones has a proposed palette of materials, furnishings, and plantings.

The recommendations within the 2015 Landscape Master Plan reinforce sustainability in open space through several means including: solutions for stormwater challenges, native and adapted plants in the plant palette, reduction of outdoor water use through the landscape, emphasis on accessibility and universal design, consideration of material carbon footprint and source, emphasis on creating outdoor spaces for social connections, emphasis on providing safe and enjoyable connections on campus that encourage multimodal transportation.

2018 PLACEMAKING WORKSHOP REPORT

In July 2018, a team of architects, landscape architects, campus leadership, and user groups gathered for a two-day workshop at the NAU Flagstaff Mountain Campus to explore placemaking and enhance campus spaces. The workshop involved discussions, site walks, and presentations on exemplary public and campus places across the country. Key concepts and recommendations emerged, including the importance of stronger connections between the campus and the town, unified aesthetics, memorable outdoor spaces, and a pedestrian-focused circulation hierarchy. The workshop also emphasized the integration of landscape, distinct campus zones, and flexible design principles. The next steps outlined for campus planning included updates to the 2010 Master Plan, additions to the Landscape Master Plan, and the implementation of a Design Review Board to guide future development. The workshop served as a foundation for future campus planning efforts, building upon previous work and introducing new ideas for enhancing Northern Arizona University's campus.

2022 LANDSCAPE MASTER PLAN REPORT

The 2022 Landscape Master Plan Report serves as a resource for the ongoing development of the Comprehensive Sustainable Smart Campus Master Plan. It provides an overview of the 2015 Landscape Master Plan, including its goals, guiding principles, and the three character zones: Historic North, Central Innovation, and Mountain South Campus. The report showcases completed projects within each character zone, including designs that were developed as part of the Plan, as well as other projects that were implemented based on the Plan's principles and design standards.