
# Campus Master Plan

November 2020

# Contents

# Letter from the President

Dear NKU Campus Community:

I am excited to share Northern Kentucky University's 2020 Campus Master Plan with you. This bold and sustainable plan will guide future development of our beautiful campus, and is meant to inform us and the region we serve, including state officials, legislators, donors and friends.

With a foundational basis on *Success by Design* and our vision to become nationally recognized as a student-ready, regionally engaged university, the Campus Master Plan links the past to the future in ways we had not anticipated when the process began. The master planning team engaged with internal and external communities in a thoughtful conversation about the future.

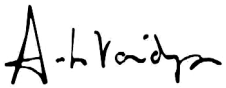
This process of introspection, of sharing ideas and seeing the campus through a new lens, and then considering alternative ways to meet our needs resulted in lively discussions. Early in the process, we achieved consensus on the guiding principles for developing the plan:

- Support a more engaged university serving the northern Kentucky region
- Create a place of academic excellence and innovation to support a diversity of learners
- Design a welcoming and desirable NKU experience
- Leverage campus assets to create value

Due to COVID-19, the master plan team transitioned to virtually engaging stakeholders in evaluating design scenarios of specific campus areas. The scenarios included renovation of existing facilities, new construction, relocation of departments, campus space, pedestrian and vehicular circulation systems, parking, campus entry and arrival, signage and infrastructure. Plans also included athletic and recreation facilities and edge-of-campus land uses.
The resulting plan provides a framework for the university to operationalize over a 10-to-20 year horizon. Projects outlined in the Master Plan focus on stewardship of assets and investments in the physical campus that add value through improving the student experience, advancing NKU's competitive advantage, supporting digital initiatives and growing strategic partnerships. While the primary focus of the recommendations are on the renovation of existing space, the plan also includes strategic additions and new buildings.

You will find that the 2020 Campus Master Plan positions NKU for great success. I truly appreciate the work of the Ayers Saint Gross team and all those on campus and in the community who shared their time and ideas. Together, we aspire to a future for NKU that is bright – let us look forward to working together to achieve that goal.

Sincerely,



Ashish K. Vaidya, Ph.D.
President


NKU
James C. and Rachel M. Votruba
STUDENT UNION

# Executive Summary

The 2020 Campus Master Plan builds on a rich history of master planning at Northern Kentucky University and provides a cohesive vision for the physical campus that advances the university's mission and supports the priorities of *Success by Design*, the university's strategic framework.

# Executive Summary

The 2020 Campus Master Plan will inform decision making and guide the implementation of physical improvements to the campus over the next 10 to 15 years. A robust and collaborative planning effort, the plan was developed through a consensus-driven process guided by a diverse steering committee and informed by the engagement of both campus and local community stakeholders. The following four planning principles guided the Master Plan and will continue to inform decisions during the life of the plan:

1. Support a more engaged university serving the northern Kentucky region
2. Create a place of academic excellence and innovation to support a diversity of learners
3. Design a welcoming and desirable NKU experience
4. Leverage campus assets to create value

An initial phase of the master planning process included a space-needs assessment to evaluate existing campus space qualitatively and quantitatively. The space-needs assessment identified academic space-needs in the colleges of Arts and Sciences, Informatics, Business, and Health and Human Services as well as significant space deficits for academic affairs, student services, administration, and athletics.

To address campus space-needs, key opportunities were identified through campus engagement sessions and analysis by the planning team. The following three goals were established to guide recommendations:

- Optimize the campus core for collaborative teaching and learning - improve adjacencies and connectivity
- Enhance the student experience with improvements to Steely Library, University Center, Votruba Student Union and student living spaces
- Define the campus perimeter to provide easier access to the academic core and improvements to parking, communications, signage, walkways, wayfinding, and campus entry points

Projects outlined in the Master Plan reflect the findings of the space-needs assessment and focus on the stewardship of assets and investments to the physical campus that add value through improving student engagement, advancing NKU's competitive advantage, supporting digital initiatives, and growing strategic partnerships. While the primary focus of the recommendations is on the renovation of existing space, the plan also includes strategic additions and new buildings. The Master Plan identifies priority projects that meet current needs while outlining bold goals and a long-term vision to meet the challenges of tomorrow.


NKU
James C. and Rachel M. Votruba
STUDENT UNION

# Campus Master Plan

## Academic Core

The recommendations for the academic core are aimed at providing needed growth in strategic areas while modernizing key buildings for today's educational environment.

- Expansion of the Herrmann Science Center will provide much needed class labs and research space as well as space for engineering technology, thus freeing up space in the Business Academic Center (BC) to allow renovation and expansion to house Chase College of Law and the Haile College of Business.
- Following the relocation of law to BC, Nunn Hall will be renovated, and an addition constructed to house the engineering technology and visual arts, creating opportunities for STEAM collaborations. The relocation of art will enable renovation and modernization of the Fine Arts Center, providing expansion space for music and theater. Space vacated by engineering technology in the Science Center will support growth in the sciences.
- An Integrated Science Building is planned on the site between Herrmann Science Center and Griffin Hall, completing NKU's STEM quad. Since there are no enabling projects, funding and space-needs will determine the timing of this project.
- The Master Plan anticipates incremental renovations of Landrum Academic Center and the Mathematics-Education-Psychology Center. Major renovations are expected following completion of the Nunn Hall renovation.

## Priority Projects

New Construction
Major Programmatic Renovation

**ACADEMIC PROJECTS**

**1.** Science Center Addition
**2.** Bus. Acad. Ctr. Renovation/Addition
**3.** Nunn Renovation/Addition
**4.** Interdisciplinary Science Building
**5.** Major Academic Renovation

**STUDENT CENTERED SPACE**

**6.** Library Knowledge Hub
**7.** Student Centered Space
**8.** Alumni Center
**9.** First-Year Experience
**10.** Callahan Renovation

**ATHLETICS AND RECREATION PROJECTS**

**11.** Recreation Fields
**12.** Baseball Stadium Improvements
**13.** Tennis and Softball Improvements
**14.** Basketball Practice Facility
**15.** Kenton Walk
**16.** Pedestrian Connections
**17.** Campus Gateway Improvements
**18.** Town Center
**19.** Innovation Partnerships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## Student-Centered Space

Improving space for student engagement and increasing the sense of belonging are priorities identified in the Master Plan. The transformation of Steely Library into an academic knowledge hub to support the academic needs of all students in one location enables the achievement of this goal. Surplus space in the existing library will allow academic services currently located in the University Center and the Votruba Student Union to relocate to the library, thus freeing up space for a Center for Student Inclusiveness as well as other student services, organizations and activities. This strategy closely aligns with *Success by Design* and is identified for early phase implementation.

The plan also supports the goal of enhancing the on-campus residential experience. The first-year experience will be supported with completion of the new residence hall as well as the renovation of Commonwealth and Kentucky Halls. Renovation of Callahan will provide a value option for upper division students as well as an opportunity for growth in the upper-division Honors College.

Renovation of the Civic Center as an alumni center will benefit both current students and alumni by providing opportunities for greater interaction and programing.

For athletics and recreation, the plan includes improvements to existing baseball, softball and tennis facilities and identifies a site for future construction of a basketball practice facility, an indoor multi-purpose center, and a track and field stadium. Recreation fields are envisioned on the current site of Woodcrest Apartments.

## Campus Edge Opportunities

The Master Plan provides campus edge opportunities for industry/corporate partnerships, economic development, and innovation to serve the university as well as the broader northern Kentucky region. Various partnership sites are identified, with a goal to further NKU's integration with the community and to establish the university as a regional innovation hub providing opportunities for students and faculty to engage with private businesses. The Town Center development site is a near-term opportunity to establish a presence on U.S. 27 with a public-private partnership featuring a mixture of retail and housing. The plan also includes recommendations for gateways, branding, landscape, and wayfinding improvements to create a more welcoming campus.

## Sustainability and Utility Infrastructure

The Master Plan includes a variety of recommendations building upon the university's commitment to sustainability and the goal of achieving carbon neutrality by 2050. Notable among these is the decision to renovate and modernize rather than demolish existing buildings, a strategy similar to the HIC/Founders renovation project. A comprehensive infrastructure assessment is included in the plan and addresses the capacity of current systems as well as strategies aligned with the university's sustainability goals. Reaching carbon neutrality will also require policy development aimed at reducing travel and encouraging alternate modes of transportation.

# Long-Term Vision

The Master Plan identifies long-term development sites, or sites beyond the 15-year time horizon of the plan. Agreement on these long-term development sites maintains future flexibility and ensures that campus improvements identified in the Master Plan are consistent with long-term goals and opportunities. The long-term vision includes opportunities for academic expansion within the academic core. Residential expansion is envisioned adjacent to existing housing neighborhoods. Future athletic and support facilities as well as innovation and partnership opportunities are identified at the campus perimeter.


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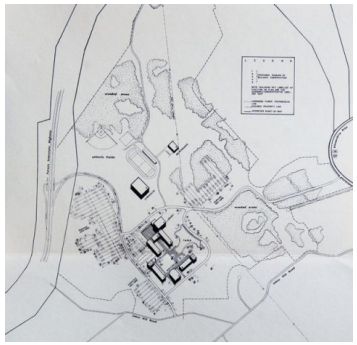
# Introduction

Northern Kentucky University's vision is to be nationally recognized as a student-ready, regionally engaged university that empowers diverse learners for economic and social mobility.

# History of Planning at NKU

In 1968, the need for greater higher-education opportunities in northern Kentucky prompted the initial planning for Northern Kentucky University before an actual site had been identified. A subsequent study in 1969 recommended the university's current location in Campbell County to support an anticipated enrollment of 5,000 students. Following the selection of the Highland Heights site in 1970, the first master plan was developed with an emphasis on a compact cluster of connected buildings comprised of 730,000 gross square feet. Completion of the first building on the new campus, Nunn Hall, was completed in 1972 and a period of significant construction followed to support steadily growing enrollment and the transition to university status in 1976. The concept of a compact campus core was retained and reinforced through subsequent master plans in 1971, 1978, 1987, 2000, and 2009.

***The university has grown beyond the foundational compact core envisioned in 1970, increasing from 239 acres in 1990 to 430 acres today.***



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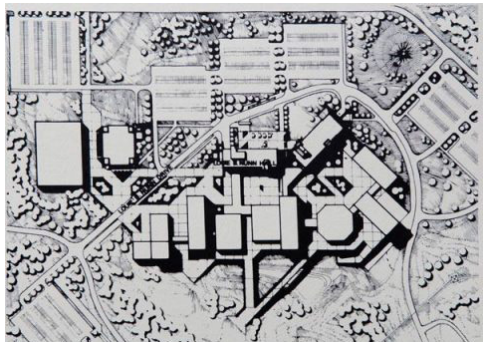
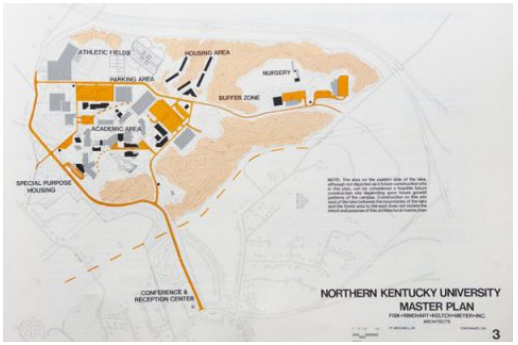


1971




1978

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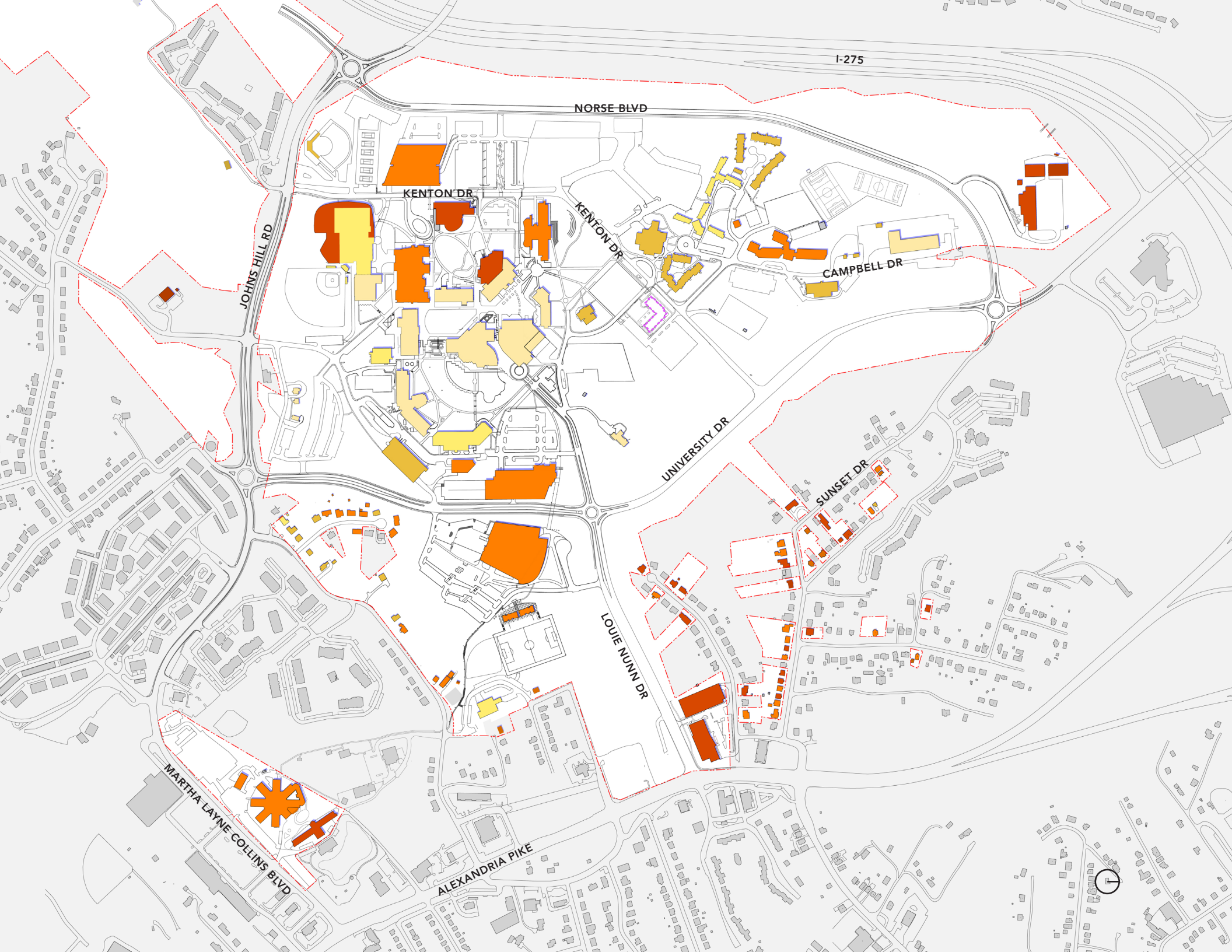
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NORSE BLVD
KENTON DR
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CAMPBELL DR
UNIVERSITY DR
SUNSET DR
LOUIE NUNN DR
MARTHA LAYNE COLLINS BLVD
ALEXANDRIA PIKE

## CAMPUS GROWTH

The physical campus has evolved significantly over the last decade. Many projects prioritized in the 2009 Master Plan are complete, including Griffin Hall, the Health Innovation Center, the Soccer Stadium, a campus recreation expansion of the A.D. Albright Health Center, renovation of Founders Hall and the Central Plaza, and construction of Norse Boulevard. The purchase and renovation of Northern Terrace provided additional opportunities for on campus housing. A new residence hall with 297 semi-suite beds will be completed in 2021 and will offset the beds lost with the demolition of Woodcrest Apartments. Over the last decade, overall enrollment declined until Fall 2018 when it began to increase again. Fall 2018 enrollment was 5.2 percent above 2009, although in-person enrollment dropped 20 percent and online enrollment increased nearly 700 percent over that span.

**CAMPUS GROWTH TIMELINE**

- 1971-1980
- 1981-1990
- 1991-2000
- 2001-2010
- 2011-Present
- Future

# Alignment with *Success by Design*

The Master Plan aims to align the physical campus with the university's strategic framework, *Success by Design*. Completed in 2019, *Success by Design* is a three-year strategic framework with a focus on student success. The framework was purposefully designed to align resources, decisions, and processes around prospective, incoming, and current learners. The plan strives to reduce barriers and expand educational opportunities, increase degree completion, and contribute to the economic, social, and civic prosperity of the region.

Northern Kentucky University's vision is to be nationally recognized as a student-ready, regionally engaged university that empowers diverse learners for economic and social mobility. The Master Plan will guide future investments in the physical campus to support the goals outlined in the three pillars of *Success by Design* and advance the university's mission to deliver an innovative student-centered education.

## MISSION

**"Northern Kentucky University delivers innovative, student-centered education and engages in impactful scholarly and creative endeavors, all of which empower our graduates to have fulfilling careers and meaningful lives, while contributing to the economic, civic, and social vitality of the region."**

*SUCCESS BY DESIGN* IS BUILT UPON THREE PILLARS:

## Access

NKU will expand programs, services, and delivery options to increase access and become a preferred destination for learners across the Commonwealth of Kentucky, the nation, and the world.

## Completion

NKU will align the institution so more learners, particularly first-generation, post-traditional, low-income, and underrepresented individuals, earn highly valued degrees, certificates, and credentials.

## Career & Community Engagement

NKU will increase its contributions to the economic, social, and civic prosperity of the region through talent development, research and innovation, and the stewardship of place.

# Master Plan Process

Beginning in October 2019, the master plan team, guided by a steering committee, initiated a four phase, 15-month planning process. The 23-member steering committee co-chaired by Provost Sue Ott Rowlands and Interim Vice President for Administration & Finance/CFO Mike Hales helped guide consensus-driven decision making at each phase of the process and ensured alignment with the university's strategic plan.

The master-planning process was structured around seven workshops organized to build a common vision for the physical campus. An early SWOT analysis provided a foundational understanding of opportunities and challenges.

## SWOT Summary:

### STRENGTHS

- Campus Environment & Landscape
- New Development & Infrastructure
- Culture
- People - Faculty & Staff
- Community Relationships
- Location

### WEAKNESSES

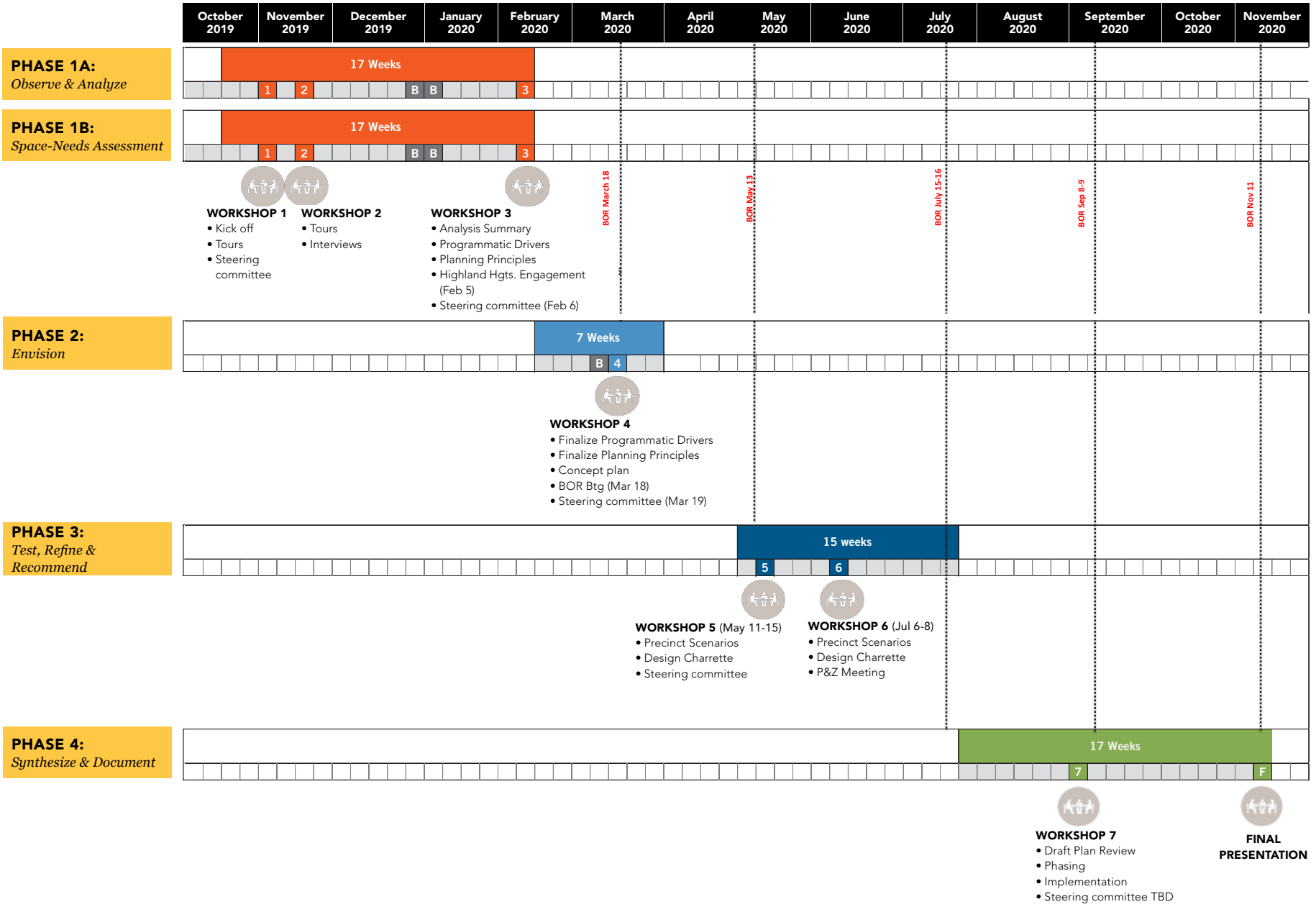
- Housing
- Student Space
- Community Space
- Academic Space
- Building Condition & Infrastructure
- Transportation
- Funding
- Campus Identity
- Culture

### OPPORTUNITIES

- U.S. 27 Development
- Community Relationships & Partnerships
- Athletics
- Physical Campus
- Programs & Culture

### THREATS

- Enrollment
- Housing
- Funding
- Physical Campus


October 2019
November 2019
December 2019
January 2020
February 2020
March 2020
April 2020
May 2020
June 2020
July 2020
August 2020
September 2020
October 2020
November 2020
PHASE 1A:
Observe & Analyze
17 Weeks
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PHASE 1B:
Space-Needs Assessment
17 Weeks
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BOR March 18
BOR May 13
BOR July 15-16
BOR Sep 8-9
BOR Nov 11
WORKSHOP 1
• Kick off
• Tours
• Steering committee
WORKSHOP 2
• Tours
• Interviews
WORKSHOP 3
• Analysis Summary
• Programmatic Drivers
• Planning Principles
• Highland Hgts. Engagement (Feb 5)
• Steering committee (Feb 6)
PHASE 2:
Envision
7 Weeks
B
4
WORKSHOP 4
• Finalize Programmatic Drivers
• Finalize Planning Principles
• Concept plan
• BOR Btg (Mar 18)
• Steering committee (Mar 19)
PHASE 3:
Test, Refine & Recommend
15 weeks
5
6
WORKSHOP 5 (May 11-15)
• Precinct Scenarios
• Design Charrette
• Steering committee
WORKSHOP 6 (Jul 6-8)
• Precinct Scenarios
• Design Charrette
• P&Z Meeting
PHASE 4:
Synthesize & Document
17 Weeks
7
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WORKSHOP 7
• Draft Plan Review
• Phasing
• Implementation
• Steering committee TBD
FINAL PRESENTATION

The first phase included a quantitative and qualitative analysis of existing campus conditions, interviews with the campus community, and a review of previous planning initiatives. A campus-wide space-needs assessment analyzed the amount and type of space required to support current needs as well as future initiatives.

Building on the foundation of the Phase 1 analysis, the planning team worked with the campus community to develop guiding principles encompassing the university's core values as well as the goals and priorities for future development. The guiding principles provided a benchmark for decisions related to development of the Master Plan and they will continue to guide decisions related to prioritization and implementation during the life of the plan. The design team then developed a concept plan that translated the guiding principles into a shared vision for the spatial development of the university. The structure, layout, and relationship of planned open space, circulation, environmental systems, buildings, and focal points was synthesized as the foundation for testing and assessing design ideas and strategies.

Based on the findings of the space assessment, the guiding principles, and the concept plan, the design team developed a series of scenarios that included the renovation of existing facilities, new construction, relocation of departments, enhancement of open space and, improvements to pedestrian and vehicular circulation, parking, campus entry and arrival, signage and infrastructure. These scenarios were evaluated by key stakeholders and shared with the steering committee and the Board of Regents in a series of presentations.

The preferred ideas represented in the scenarios were then consolidated into a draft master plan which included recommendations for the prioritization and sequencing of future projects. The draft plan was further developed to provide a visionary and implementable plan supporting the university's mission, goals, and aspirations.

*November 2019 — Open Engagement Session*


## ENGAGEMENT

Robust engagement opportunities for students, faculty, staff, and the greater Highland Heights community informed key decision points in the process. In November 2019, the planning team held a student, faculty and staff open engagement session discussing campus space, housing, dining, and transportation. In February 2020, a community open house and external community session engaged community members to provide input on transportation, campus access, and potential partnership opportunities.

In March 2020, following Workshop 4, COVID-19 restrictions required the planning process to continue virtually. Stakeholder engagement and scenario development continued through a variety of digital tools. A master plan website hosted by NKU provided access to workshop presentation materials with updates throughout the process. The website also provided an opportunity to submit questions and comments. The planning team met with Highland Heights Planning and Zoning in June and September to update public officials on the progression of the master plan, discuss NKU's role in a potential Town Center development and review other opportunities for collaboration. In September, the planning team met with the Alumni Board of Directors and also held a particularly well-attended virtual campus open house to discuss master plan goals, review priority projects, and discuss partnership opportunities.

NOVEMBER 2019

### Student & Faculty / Staff Open Sessions

- Collected feedback on campus spaces, housing, dining, & transportation
- “One big change” dialogue

FEBRUARY 2020

### Community Open House

**Welcoming campus, transportation & connectivity, community partnerships**

- Better communication of events and activities on campus
- Availability of free parking for community events
- Traffic concerns, particularly during events
- Opportunity for improved bike lanes and pedestrian connections

MAY 2020

### External Community Engagement

- Opportunities for innovation, incubators, and other partnerships
- NKU as a regional leader in entrepreneurship & collaboration
- Welcoming campus to support alumni, community, region

JUNE 2020

### Highland Heights Planning & Zoning

**Staff discussion / Town Center**

- Update of Master Plan progress
- Vehicular circulation and development within town center area
- Long-term campus vision

JULY 2020

### Edge of Campus Workshop

- Alumni Center to serve campus as well as community
- NKU’s role in the future Town Center
- Opportunities for partnerships to support innovation
- Potential development of land south of Johns Hill Road

SEPTEMBER 2020

### Highland Heights Planning & Zoning

- Master Plan drivers & goals
- Review priority projects & partnership opportunities

### Alumni Board Meeting

- Master Plan drivers & goals
- Review priority projects & partnership opportunities

### Campus Master Plan Open House

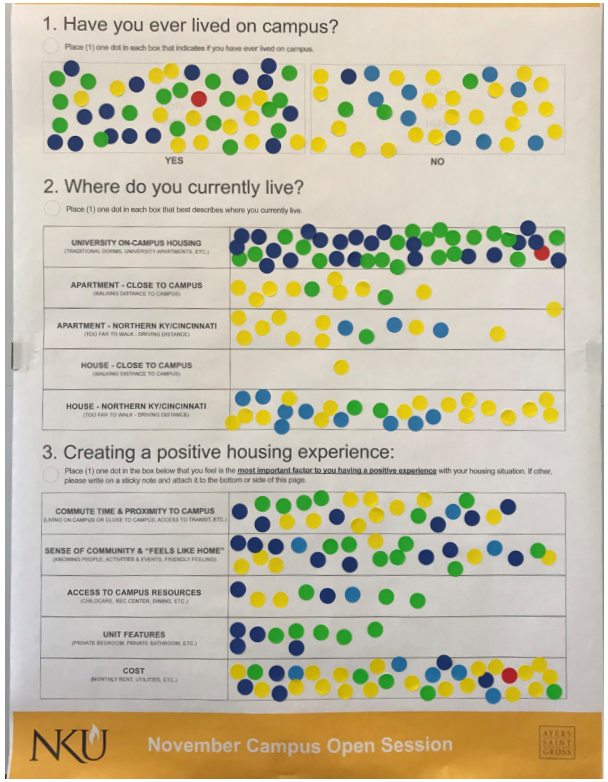
- Master Plan drivers & goals
- Review priority projects & partnership opportunities

**Website:** *https://www.nku.edu/masterplan.html*

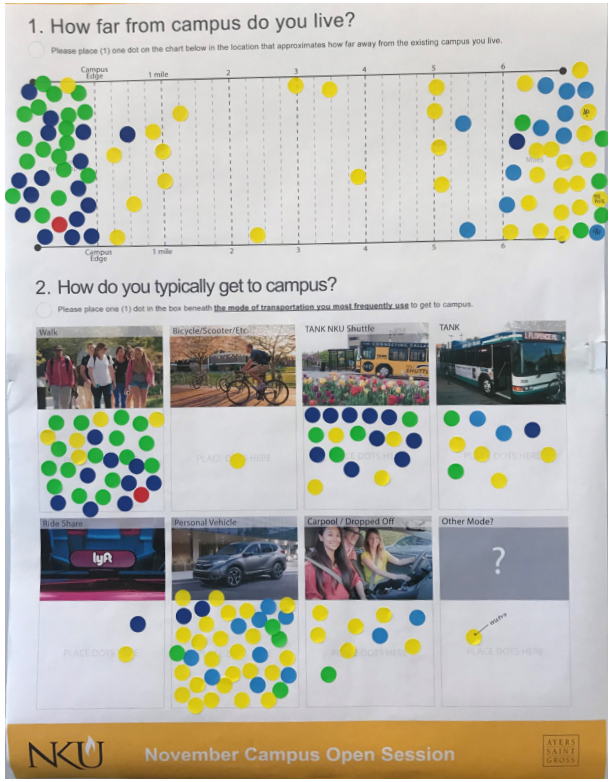
## RESULTS OF STUDENT ENGAGEMENT

- 83 undergraduate / 1 graduate student
- Cost is the most important factor for a positive **housing** experience followed by sense of community and proximity to campus
- Some off-campus students use public **transportation** but most live more than 5 miles away and drive to campus
- For many students, the campus **experience** includes significant time spent in the Votruba Student Union, Steely Library and distributed work spaces
- Students rated most campus **spaces** as OK or GOOD/GREAT
- Most students **study** individually or in small groups and they prefer a semi-enclosed or enclosed study space
- Students rated **dining** as OK or NEEDS IMPROVEMENT - Steak 'n Shake is the favorite venue followed by Norse Commons, Einstein's Bagels, Starbucks, and Au Bon Pain

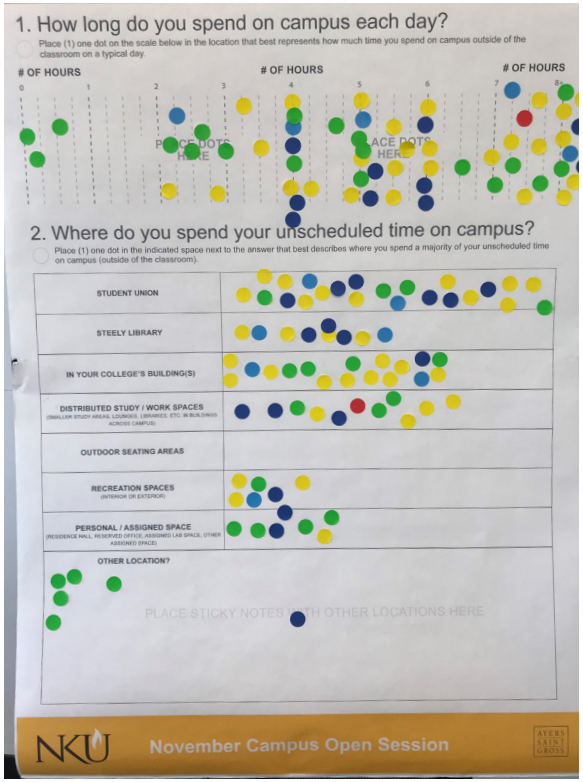
*Housing*




*Transportation*

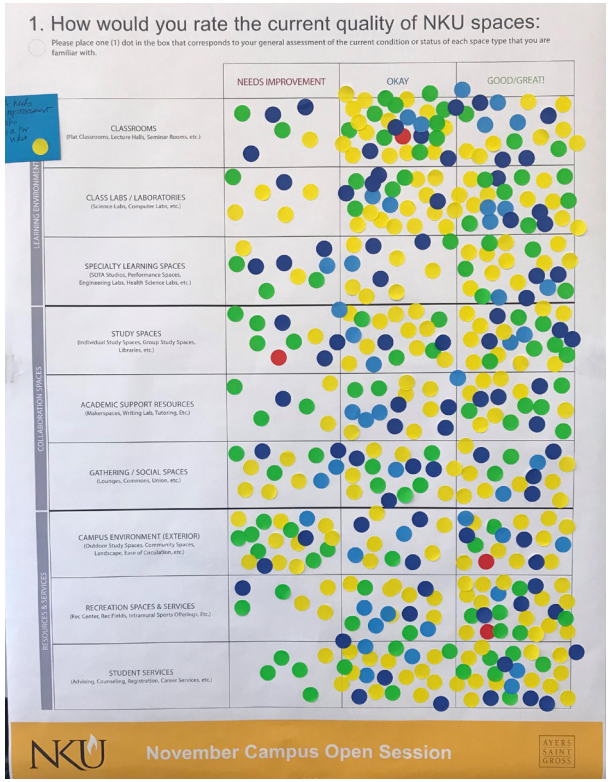



*Campus Experience*

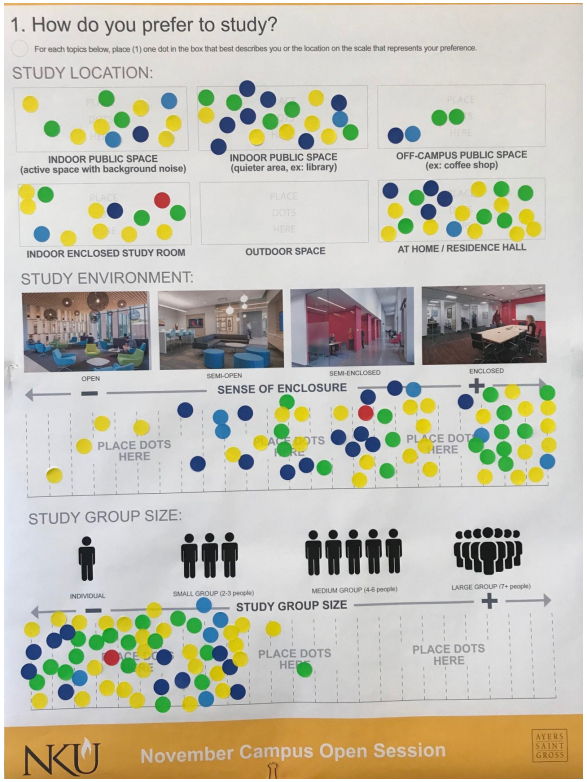


- Freshman **(Living On-Campus)**
- Freshman **(Living Off-Campus)**
- Sophomore / Junior / Senior **(Living On-Campus)**
- Sophomore / Junior / Senior **(Living Off-Campus)**
- Graduate Student

*Campus Spaces*




*Study Spaces*




*Campus Experience*


GRIFFIN
HALL

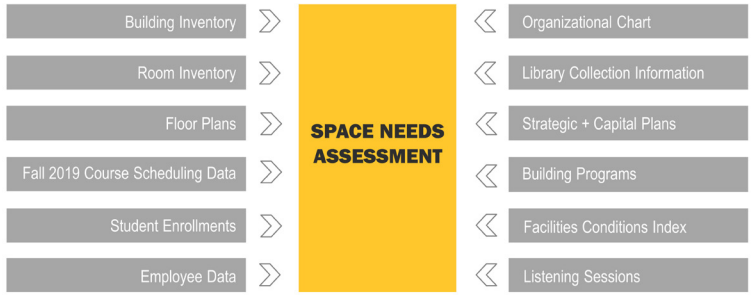

# Campus Space-Needs

Ayers Saint Gross was charged with conducting a space assessment as part of the Master Plan for Northern Kentucky University (NKU). The assessment quantifies the amount of space the university currently has and how much new construction is needed to support master-plan goals and initiatives.

# Space-Needs Assessment Process

A space-needs assessment is a functional assessment revealing a university's physical space story in numbers. The assessment quantifies the amount of space a university currently uses compared to the amount of space needed to support institutional goals and initiatives for short-term and long-range growth. For NKU, the space assessment addresses approximately 1.2 million net-assignable square feet (NASF) of built space. The assessment incorporates data concerning students, curriculum, employment levels, building condition, and space use from a variety of university sources to provide a snapshot of space quantity, quality, and utilization at a specific moment in time.

During the initial listening phase of the Master Plan, data was collected and analyzed using SAMi™ (Space Analytics Modeling Interactive), an interactive data-visualization tool that documents existing conditions and provides data on how institutions utilize and manage space.




*Space-Needs Assessment Inputs*

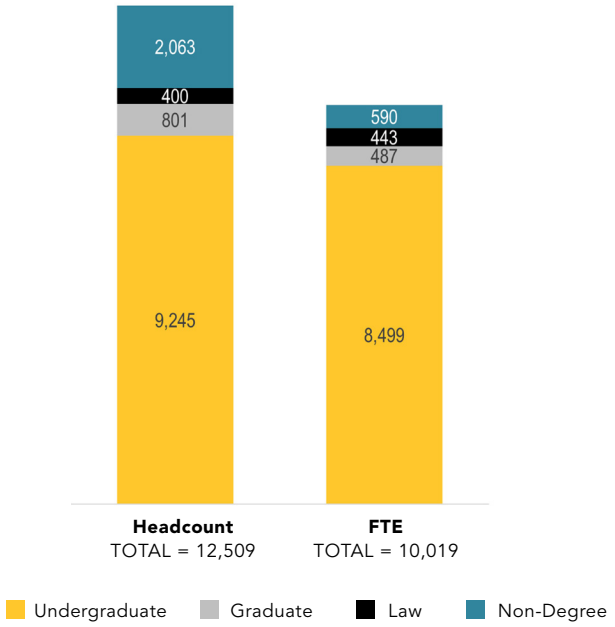
*SAMi Integrated Planning Tool Interface*

At NKU, this data, quantitative in nature, was combined with a series of listening sessions that engaged students, faculty, staff, and community stakeholders. The process was comprehensive in that it assessed the quantitative and qualitative character of spaces to inform metrics reflective of today's pedagogies and modern use of learning environments.

The space metrics used to generate the analysis were based upon a review of normative guidelines applicable to institutions similar to NKU as well as the consultant team's extensive higher-education experience. The parameters allow for an ideal amount of space adaptable to a variety of design solutions. Space is organized in two manners: first, based on its primary academic or administrative unit; and second, based on its primary function as academic, administrative, or student space. Though space is categorically separated for the analysis, individual research-informed metrics are considered for different space types. The analysis was adjusted to recognize that spaces work together to provide a cohesive learning environment.

The university provided all data using Fall 2019 as a snapshot in time. For Fall 2019, NKU had 10,019 full-time equivalent students (FTE) utilizing physical space on campus. The on-campus enrollment excluded accelerated online (AOL) and online students. University of Kentucky medical students, which totaled 80 additional FTE students, were included for student-centered spaces but not instructional spaces. To plan for maximum flexibility in a time when changes in enrollment are unknown, the space-needs outlined in the Master Plan reflect the space analysis results based on enrollment in Fall 2019 rather than any growth scenario.

In addition to current findings, the assessment establishes forward-looking metrics that focus on trends applicable across the various colleges at the university. The assessment considered growth scenarios 5, 10, and 15 years out based on enrollment projections provided by the institution. After reviewing growth scenarios and in consideration of the impact of the pandemic on enrollment, the decision was made to base master-plan recommendations on Fall 2019 enrollment.




**FALL 2019 STUDENT ENROLLMENTS**

*On-Campus Enrollment Only*

- *Excludes AOL Students and Online Students*
- *UK Medical Students included for student-centered spaces (80 students total)*

# Opportunities for Renovation and New Construction

Understanding current space-needs will help NKU leverage campus assets to better align existing resources with the university's strategic framework. The space-needs analysis determined that approximately 278,000 NASF of additional space is needed to support current academic, support, and student needs on campus. While new construction strives to create an ideal amount of space within budget constraints, renovations optimize the adaptive reuse of existing buildings based on existing conditions, infrastructure, location, and capacity.

The space-needs analysis allowed the university to make data-informed decisions throughout the planning process. Scenario drivers included addressing qualitative and quantitative deficiencies of space, improving department synergies, optimizing existing facilities, and locating new construction to have the most impact on student success. Pedagogical shifts in program or course delivery methods, enrollment, faculty/staff population and workplace strategies, research trends, external partnerships, and the age and condition of existing facilities will inform future campus investments as will the following qualitative drivers:

- Places to collaborate, formally and informally, for faculty and students
- Communal spaces that support the holistic entirety of NKU's student population – including commuters, non-traditional students, and marginalized communities
- "Front door" or "wow space" to host donors, alumni, visitors, and business partners
- Flexible and adaptable instructional space
- A range of study spaces across all buildings to create equitable learning and study opportunities for all students regardless of discipline


Reserve

# Space-Needs Outcomes

## Overview of Findings Across Space Types

Over the last decade, higher education has been in a transformative mode. With ongoing economic pressure from reduced state budgets, universities have to be resourceful with their space and focus on flexibility, adaptability, and efficient utilization. Changing student profiles and accreditation requirements foster new curricular goals that put demands on space to accommodate diverse pedagogical approaches. Twenty-first century digital natives and evolving technology have challenged universities to think critically about how content is distributed and integrated online, in-person, and inside and outside of the classroom. Rapid data generation has led to technical subject knowledge outpacing curriculum, necessitating a focus on creation and application of material over content absorption. Many of these trends were accelerated in response to COVID-19 in the spring of 2020.

When it comes to learning spaces, universities are asking a new set of student-centered questions, including:

- What skills will students need when they graduate?
- What experiences will students need to learn these skills?
- What learning spaces will accommodate these experiences?
- What technologies will support these learning spaces?

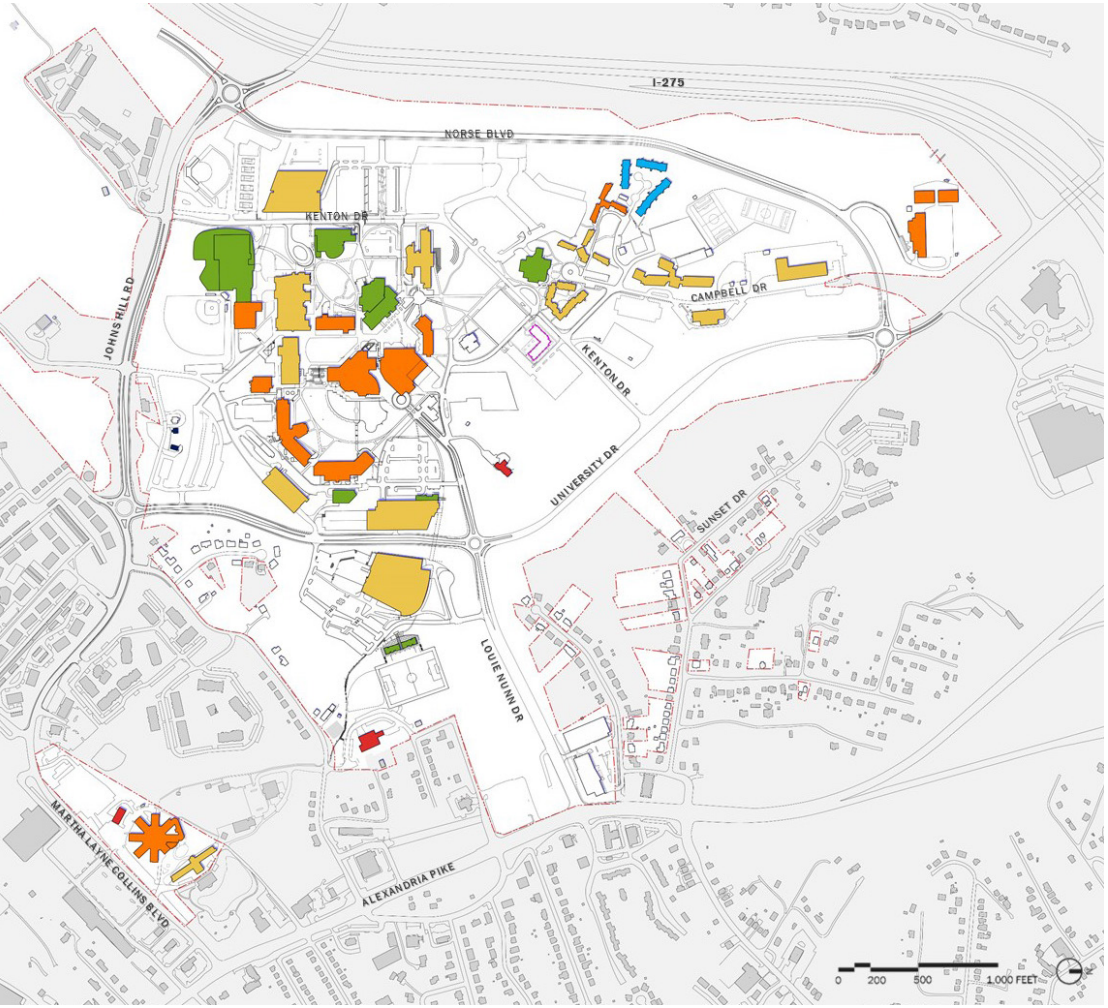
Though challenging, today's environment offers unique opportunities for critical thinking, innovation, and entrepreneurship. The need to master soft skills infers a different type of learning environment than that of yesterday: one that is flexible, interactive, and integrated across disciplines. Spaces once earmarked for a specific purpose are increasingly becoming more flexible, supporting more than one purpose.

*Health Innovation Center*

*Griffin Hall Theater*

As a result, good space planning does not consider any single issue in isolation. To that end, topics considered during the development of recommended space allocations include:

- Best practices in instructional spaces to accommodate current pedagogies, notably active learning, team-based learning, and problem-based curricula
- Variety of scheduling practices between disciplines, classrooms, and instructional laboratory types
- Methods to increase classroom and class laboratory utilization
- To accommodate current pedagogies, increase the space allocation per student seat in classrooms
- Demand for an assortment of maker spaces (part of the open laboratories space category)
- Academic program mix and delivery methods, as some disciplines require more space than others, and practices can vary widely between institutions
- Interdisciplinary and transdisciplinary activities not only for research but in instructional activities
- Interprofessional activities
- Increase in student-success programs
- Increase in online, hybrid courses
- Desire to break down silos between colleges, schools, and departments
- Participation of undergraduate students in research programs
- Level of NKU's sponsored research activity while respecting that tenure is achieved by engaging in research
- Modularity in laboratory design
- Emerging open-office landscapes within workplace design as well as telework and other flexible workplace strategies and policies
- The transformation of libraries from collectors of books to curators of knowledge (informationists and research collaborators) and academic learning commons with an assortment of spaces, including group study spaces, single-study pods, media study space areas, quiet zones, loud zones, and coffee shops/food kiosks
- Conversion of physical to digital collections and remote storage facilities
- The need for more study/collaboration spaces not only within the library (centralized), but throughout campus in all academic buildings (decentralized)
- Flexibility in space design
- The desire for more multi-purpose spaces
- Wellbeing and spaces for physical activity and mental respite




**BUILDING CONDITION***

- CODE 1: SATISFACTORY
  Maintenance/Renewal Projects < $40,000
- CODE 2: REMODELING A
  Minor Renovations < 25% of building replacement cost
- CODE 3: REMODELING B
  Minor Renovations 25%-50% of building replacement cost
- CODE 4: REMODELING C
  Major Renovations > 50% of building replacement cost
- CODE 5: DEMOLITION
  Building is unsafe or structurally unsound
- CODE 6: TERMINATION
  Discontinuation of use for reasons other than unsafe conditions or structural soundness

**Based on information from Planning Design + Construction*

## BUILDING CONDITION

Space is influenced by a university's mission, the size of the student body, the density and scale of the university campus, its academic program mix, curriculum and pedagogy specific to the university, research intensity, intercollegiate athletics, and the number of high-demand space programs such as engineering or health sciences. Although supported by current design thinking, one set of simplistic space allocations cannot determine the amount of space needed for a particular project—but it can provide a general rule of thumb. The goal of the space allocation is to find a reasonable average metric that works for Northern Kentucky University.

Drivers of space utilization vary between colleges at the university; however, many key findings are shared across units and space types. Although Northern Kentucky University has three new buildings in the core of campus, the campus's physical space has not kept up with the increasing pace of change in higher education, including trends of collaboration, active learning and teaching, technology, and entrepreneurship. Facility condition data reveals a disparity in space quality from building to building, and a number of buildings within the campus core need major renovation.

Improvements to space and facility condition are needed to support the mission and goals of the university. A large percentage of instructional space is located in buildings where the interior space configuration is no longer suitable for the pedagogical and programmatic needs of its departmental user.

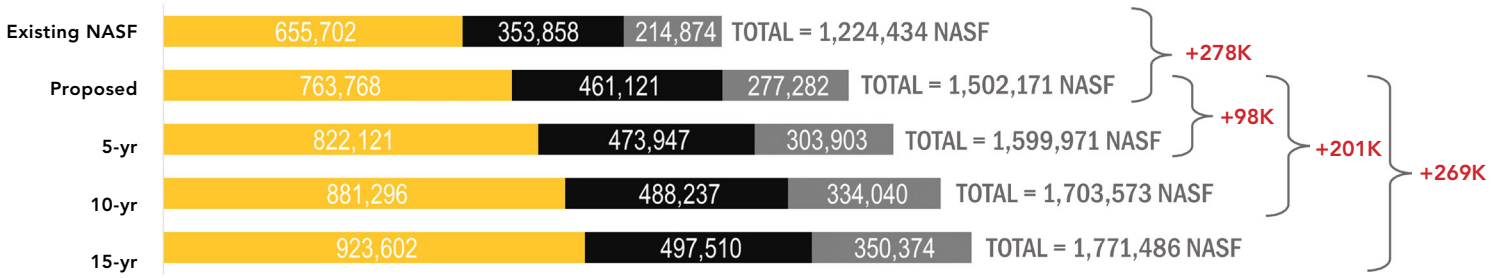
The space utilization assessment found strategic opportunities to address space-needs through renovation, repurposing, and new construction to allow for reasonable comparability for each college and space type, as appropriate. The concentration of classroom and academic space in the core campus creates a vibrant campus atmosphere; however, renewal and repurposing will allow the core to be suitable for contemporary education. In alignment with the Master Plan, the existing condition and/or potential capacity for redevelopment of several buildings makes them candidates for major renovations over the long term. Collaboration is essential to problem solving and integrated research and teaching; therefore, spaces should be flexible, with building design decisions based on flexibility and function, not ownership. Interdisciplinary space is critical for advancing and leveraging research and funding. Specialized facilities should be highly utilized and complemented with hubs of activity and maker spaces.


**PROGRAMMATIC + PEDAGOGICAL SPACE SUITABILITY***

- A - ABOVE AVERAGE
  Spaces, including instructional and faculty space, reflect current best practices and appropriate student study/lounge/collaboration spaces are provided
- B - AVERAGE
  Spaces meet basic needs but do not necessarily reflect current standards
- C - BELOW AVERAGE
  Spaces do not meet basic requirements

**Based on information from Planning Design + Construction*

**SPACE-NEEDS OUTCOMES BY SPACE CATEGORY**




- *Current need is 278K of additional space (150 NASF per Student FTE)*
- *5-year growth shows a need of 376K or 98K to accommodate growth (150 NASF per student FTE)*
- *10-year growth shows a need of 479K or 201K to accommodate growth (144 NASF per student FTE)*
- *15-year growth shows a need of 547K or 269K to accommodate growth (143 NASF per student FTE)*

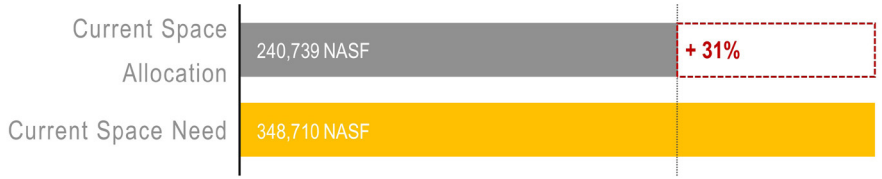
Approximately 1.2 million net assignable square feet (NASF) of built space was analyzed. A space deficit of 278,000 NASF was identified based on Fall 2019 enrollment.

Across NKU's academic and administrative units, the space-needs assessment found the most acute space deficit in the College of Arts and Sciences with approximately 108,000 NASF of need. The College of Health and Human Services also has a significant space deficit with approximately 28,300 NASF of need. The space-needs assessment also identified space-needs for the colleges of Informatics and Business.

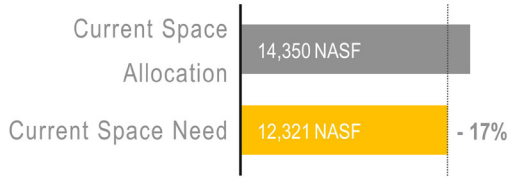
The colleges of Law and Education have a modest surplus of space; however, the quality and suitability of the space is poor overall. Steely Library, identified as a renovation opportunity, can gain space by optimizing space utilization and reducing space allocated to physical books. Athletics has a need for practice and support facilities and there is a relatively small space need for Administration and Finance.

## SPACE-NEEDS OUTCOMES BY COLLEGE

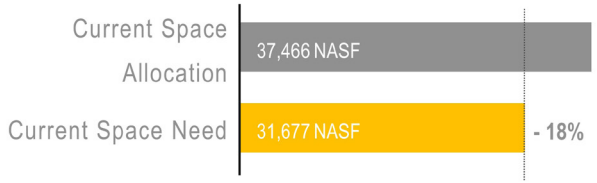
### College of Arts & Sciences



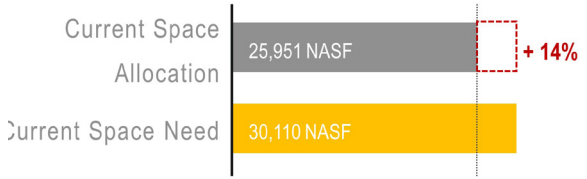

### College of Education



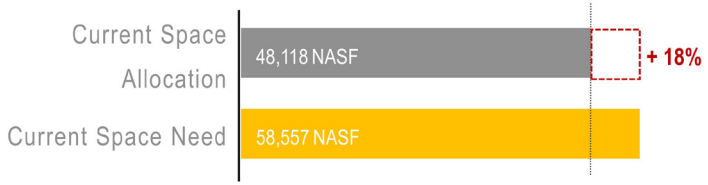

### College of Law



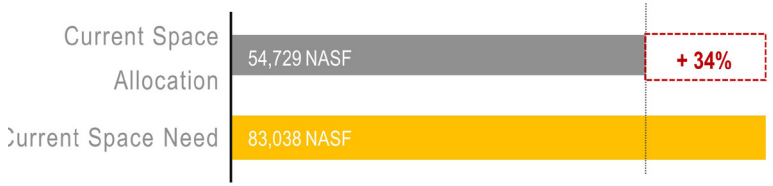

### College of Business




### College of Informatics




### College of Health & Human Services



*Landrum Academic Center*

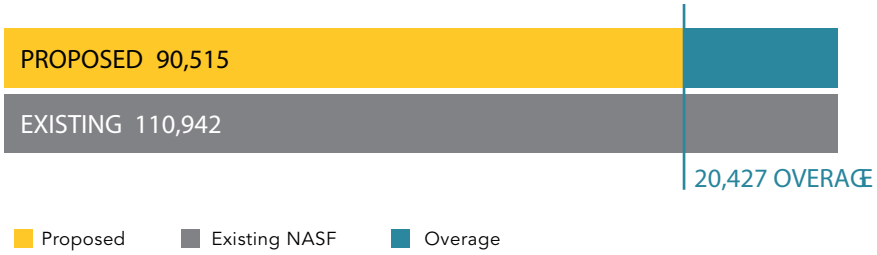
## Classrooms and Instructional Laboratories

This category includes classrooms (KY CPE 110 and 115 room-use codes) and class laboratories (KY CPE 210 and 215 room-use codes) and was expanded to include open laboratories (220-225 KY CPE room-use codes). Utilization targets are established for both classrooms and class laboratories; however, open laboratories, by definition, do not have utilization targets. These three space types comprise the instructional space category in the space metrics.

## Classrooms

*A shortage of classroom space may not be about needing more classrooms, but needing more space per student seat within the room. The reason for under-utilized rooms are many—lack of technology, over-crowding, poor furniture, wrong location, etc. Sometimes departmentally controlled classrooms are needed for unique scheduling grids and special room requirements such as technology.*

NKU has 122 classrooms that occupy 110,942 net-assignable square feet (NASF) on campus, which is a surplus for the overall number of in-person courses taught. The majority of NKU's classrooms are centrally scheduled. Utilization of classrooms at NKU is below the Kentucky Council on Postsecondary Education (KY CPE) standards in terms of seat fill rate, weekly room hours, and weekly seat hours. Classroom metrics recognize that classrooms also serve non-instructional purposes (i.e. student meetings and events), which may offset shortages in other space categories; however, non-teaching usage is difficult to document and assess accurately. At NKU, many course sizes are misaligned with room inventory resulting in lower-than-expected seat-fill rates. Space metrics highlight condition issues in classroom space and the need for more space per seat to accommodate active learning.




**METRICS**

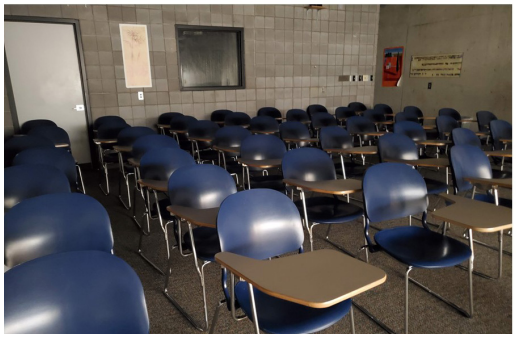
**32**
Weekly rooms hours

**70%**
Seat fill rate

**25**
NASF/seat

**KEY TAKEAWAYS**

- Furniture style and seating density limit student-centered learning opportunities
- Courses are misaligned with room inventory resulting in low seat fill rates
- Sufficient square footage but capacities are misaligned



*Fine Arts Center*

$$\text{WRH} = \left(\begin{matrix}\text{NUMBER}\\ \text{OF DAYS}\end{matrix}\right) \times \left(\begin{matrix}\text{CLASS DURATION}\\ \text{IN HOURS}\end{matrix}\right)$$

$$\text{WSCH} = \left(\begin{matrix}\text{NUMBER}\\ \text{OF STUDENTS}\end{matrix}\right) \times \text{WRH}$$

$$\text{WSCH CAPACITY} = \left(\begin{matrix}\text{NUMBER OF}\\ \text{STUDENT SEATS}\end{matrix}\right) \times \text{WRH}$$

$$\%\ \text{SEATS FILLED} = \frac{\text{WSCH}}{\text{WSCH CAPACITY}}$$

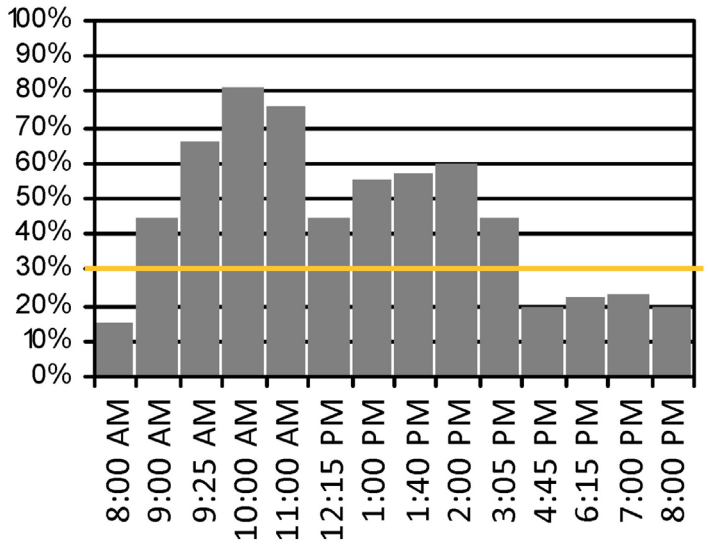
$$\text{WEEKLY SEAT HOURS} = \frac{\text{WSCH}}{\text{NUMBER OF STUDENT SEATS}}$$

WRH = WEEKLY ROOM HOURS *(alternatively titled weekly contact hours)*
WSCH = WEEKLY STUDENT CONTACT HOURS

## UTILIZATION MATHEMATICS

Utilization of classrooms is determined through the combined analysis of course and room inventory data. Scheduled use of classrooms is analyzed by day and time of day as well as through average weekly room-hour use, average student seat-fill percentage, and weekly seat hours. The analysis is built room-by-room and then averaged based upon a cluster of rooms. The clusters could represent a variety of themes, but usually include a summary by building, seat capacity range, primary occupant, and by classroom type.

**SCHEDULED CLASSROOM USE BY DAY AND TIME**




## CLASSROOM WEEKLY ROOM HOURS (WRH)

Weekly room hours are determined by the number of days a course meets multiplied by the class duration in hours. The utilization expectations—weekly room hours (WRH) and percent of seats filled—were set slightly below KY CPE standards but above existing conditions. The majority of classrooms on campus come in below this target; many fall between 20 and 30 hours of use a week with the average utilization at 26 weekly room hours. Classrooms are primarily used Monday through Thursday with the heaviest use between 9 a.m. and 4 p.m. Utilization drops off significantly after 4pm. This finding is consistent with the commuter nature of the campus.

## CLASSROOM WEEKLY SEAT HOURS

Average weekly seat hours (WSH) in classrooms is calculated by dividing the total number of student clock hours generated in classrooms by the total number of student seats in classrooms. More generally, it can be thought of as the average number of hours each week that each classroom student desk is used. Keep in mind that WSH is a product of WRH and percent of seats filled.

The WSH targets set in this study take into account the trends seen in higher education, scale of the campus, and the investment that needs to be made to create flexible, active learning classroom environments. This includes not only the space needed per seat, but the investment in flexible, movable, and stackable furnishings as well as technology. In other words, the greater investment in classroom furnishings and improvements, the better the scheduled usage of that classroom. Classroom spaces on campus that have been renovated into flexible, active learning environments, such as MP 314; Founders Hall 259, 261, 297; and HIC 102, 104, 205 and 215, increased scheduled use has been realized.

## CLASSROOM PERCENT OF SEATS FILLED

Kentucky's Council Postsecondary Education's classroom utilization standard is 36 hours per week with a 67 percent seat-fill rate. The target metric used for this study was set slightly higher at 70 percent. Percent of seats filled indicates the average percentage of student seats that are occupied when classrooms are in use. This figure is a helpful indicator of how close to capacity an institution's courses are to the rooms in which they are scheduled, but it does not indicate the overall efficiency of utilization since it does not account for the frequency of use of the room. It also does not account for the square footage per seat, which is often too low for today's dynamic teaching environments. Nunn Hall and the Mathematics-Education-Psychology Center house classrooms that are filled consistently below target metrics.

## SPACE PER STUDENT SEAT

The target net assignable square foot (NASF) metric for this study is 25 NASF per student, which is a blended average between seminar rooms, case study classes, flat floor flexible classrooms, and larger lecture halls. NKU's current NASF for all its classrooms is 22 NASF per student. The challenge that NKU and many similar institutions face is to increase the number of active learning classrooms to accommodate a variety of teaching pedagogies; however, flexible spaces require a greater amount of space per seat than traditional classrooms—in some cases twice as much, depending on the size of the space. Traditional classrooms are normally around 18-to-25 NASF per-seat whereas flexible modern classrooms require between 30 and 35 NASF per seat. As such, the NASF per seat target was set at an amount that will allow the institution to create active learning spaces. The square foot per seat is low for most room size categories, limiting the quality and flexibility of the learning environment. Although didactic-style teaching in more traditional spaces furnished with tablet armchairs will inherently persist, the suggested space allocation provides for modernized environments, which will ultimately increase utilization rates.

There are two ways to create more space in each room—reduce the number of seats in the room, thus creating more space per seat, or make the room larger by combining adjacent spaces. More than likely, a combination of both strategies will be needed. The first, removing seats within the room, should be considered only when both the campus average and the specific room seat-fill rates are known. Creating more space through removal of seats is most successful when seating in the newly configured room is stackable and easily reconfigurable to ensure flexible learning environments which support active learning pedagogies.

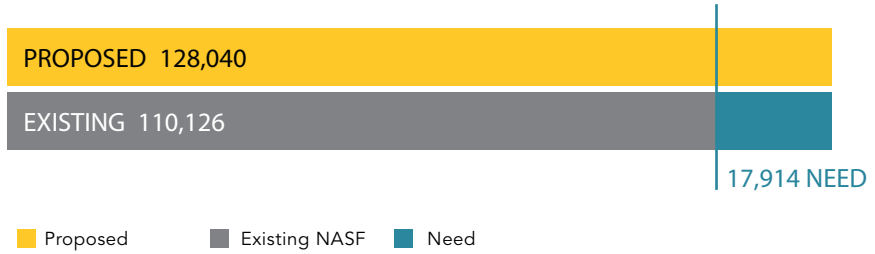
The second strategy of enlarging the room requires an in-depth evaluation of floor plans and current classroom locations. Look for renovation opportunities to combine two smaller under-utilized classrooms to create one larger classroom. Renovations would include replacing fixed furnishings with mobile team-based furniture and updating finishes to replace singular, front-facing teaching spaces with student-centered, facilitated, and interactive learning environments. In addition, power, data, projection capabilities, and writable surfaces should be considered to complement both current and future pedagogy and technology. Renovations must be forward-thinking and flexible to accommodate future delivery methods.

## Instructional Laboratories

*More laboratory space is needed to support the disciplinary growth in nursing and STEM. Better quality laboratory space is needed to support the arts.*

Although a bit more complicated, instructional labs work in a similar fashion as classrooms except that the amount of space needed per seat as well as the weekly room-hour expectation varies by discipline. The NASF per seat reflects the space within the laboratory itself as well as laboratory service spaces such as prep areas and storage. The regularity of scheduling distinguishes an instructional, or class laboratory from other laboratory types. The room is generally not reserved for special term-long experiments or set up to accommodate student projects where students come and go as they have time.

The variance in weekly room hours is attributed to the dense scheduling of lower-division labs versus upper-division labs, where one or two courses may be offered. Some labs or studios must also be available for unscheduled practice time, such as an art studio. The normal rule of thumb is that for every hour of scheduled use a student spends in the lab or studio, an additional two hours need to be spent practicing their craft in the lab or studio. In the case of graduate level labs, an experiment may involve a team of students and be of a larger scale, so it is not reasonable to expect others to utilize the lab without disturbing the experiment. To achieve a good average of class lab use, the consultant team recommends using the higher utilization rates in the lower-division labs to offset the upper-division labs where scheduled use is much lower. NKU has 91 class laboratories with an average NASF per seat of 46.




**METRICS**

**12-24**

Weekly rooms hours

**80%**

Seat fill rate

**40-120**

NASF/seat

**KEY TAKEAWAYS**

- Weekly seat hours and seat-fill rate are low
- Labs are undersized and lack sufficient service space
- More lab space is needed to support growth in nursing and STEM
- Some disciplines (art) lack quality class laboratories

*Herrmann Science Center*

## INSTRUCTIONAL LABORATORY WEEKLY SEAT HOURS (WSH)

Like classroom utilization, WSH is a product of WRH and percent of seats filled. Weekly seat hours of courses reviewed during the fall of 2019 at NKU were low, with an average rate of 11.6 hours. Departments that were within or above target include math and psychology, teacher education and school leadership, computer science, and communication.

It is important that whenever possible, laboratory spaces be designed as flexibly as possible to accommodate variable demands. For example, the demand for chemistry may decrease but the demand for an anatomy and physiology lab may increase. With cloud computing, computer labs should also be made as flexible as possible; but it is understood that some computer labs should be discipline-specific such as what may be needed for computer and information sciences or computer engineering.

## CLASS LABORATORIES PERCENT OF SEATS FILLED

The seat-fill rate for class laboratories was set at 80 percent for this study. Because there is usually a safety issue with the use of class laboratories, most institutions monitor laboratory section size closely. Laboratories are also some of the most expensive spaces constructed at an institution. For these reasons, the consultant regularly promotes achieving an 80 percent seat fill rate regardless of level or type of laboratory. The average seat-fill rate of the classes studied was 67 percent, with higher rates being achieved by the College of Health and Human Services, nurse anesthesia, the College of Education, and communication. Classes with a low percent of seats filled often corresponded to rooms with insufficient NASF per seat. The consultant recommends NKU remove seats from these laboratories to increase both NASF per student and seat-fill rates.

## SPACE PER STUDENT SEAT

As with classrooms, the class laboratory NASF per seat recommended for this study is a culmination of a variety of analyses and concerns. The initial concern is that again, this number represents an average.

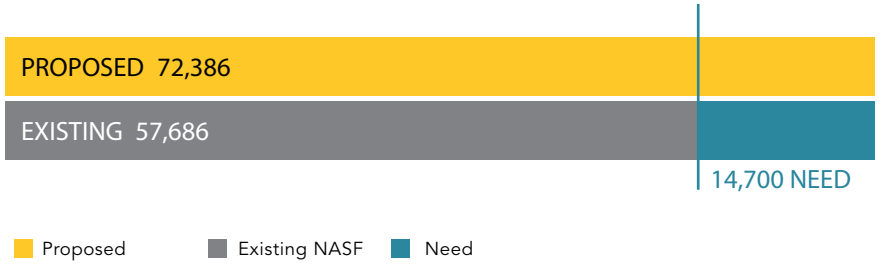
Standards for class laboratories typically fall into four categories, based on discipline requirements:

- High-Intensive (e.g., Engineering and intensive Fine Arts)
- Intensive (e.g., Biological Sciences, Health Professions, and Physical Sciences)
- Moderately Intensive (e.g., Communications, Education)
- Non-Intensive (e.g., Business, Languages)

Metrics for highly intensive labs are above 100 NASF per seat, while metrics for non-intensive labs such as language and mathematics are just above classroom requirements at 33 NASF per student. Class laboratories at NKU generally fall into the "Intensive" or "Moderately Intensive" category with guidelines set between 50 and 100 NASF per seat.

## OTHER CONSIDERATIONS

Instructional lab metrics vary from program to program but are indicative of space deficits or surpluses. Inter-professional and cross-disciplinary education is growing, creating opportunities for shared spaces in terms of simulation, fundamental labs, and maker spaces. Instructional labs featuring mobile benches, overhead utilities, perimeter casework and ample technology are the new norm and ensure flexible, active learning environments. Support and storage space is critical, especially if multiple programs operate out of the same lab. Laboratories at NKU lack sufficient service and storage space. More lab space is needed to support growth in specific disciplines such as nursing and chemistry. Other disciplines, specifically in the arts, lack quality class laboratories.



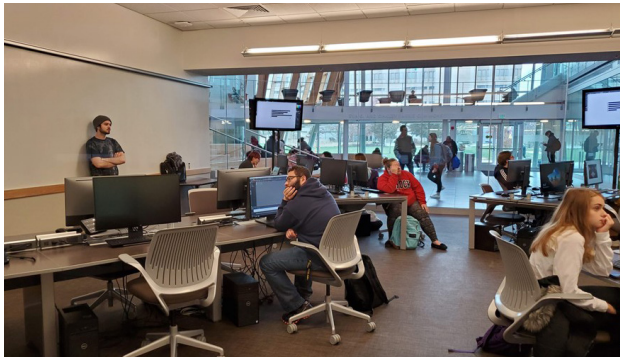

**METRICS**

7

NASF/seat

**KEY TAKEAWAYS**

- Lack of maker space for students to produce their own material (engineering technology, visual arts, general student population)
- Lack of storage space for student projects (visual arts)
- Includes additional music practice rooms and animation lab



*Griffin Hall*

## Open Laboratories

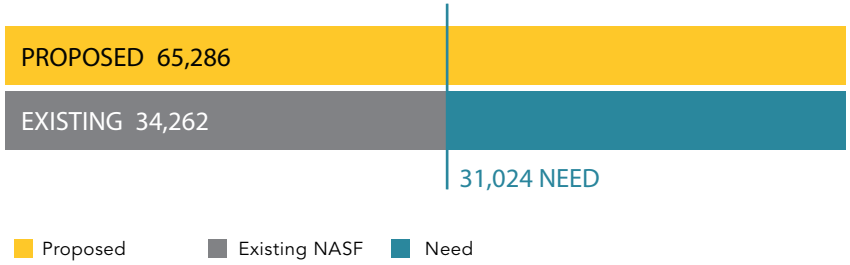
Unlike instructional labs, open labs are irregularly scheduled, if they are scheduled at all; therefore, there is no data available for review of utilization. These can include open-access laboratories designed to serve the needs of a particular discipline and outfitted with specialized equipment for group instruction or individual student experimentation or practice. The key is that these spaces are typically not scheduled in a formal manner. Types of rooms included in this category include computer laboratories, language labs, learning labs, testing and tutorial labs, music practice rooms, and individual art studios. Undergraduate research and senior capstone spaces could also be considered in this category. At NKU, open labs are primarily used by the colleges of Informatics, Arts and Sciences, and Health and

Human Services.

Because there is no data to measure open laboratory space use, a very common practice is to determine the square footage per student FTE for the campus. This space category is not specifically addressed by the Kentucky Council on Postsecondary Education guideline metrics. In many benchmarking studies conducted by the consultant, a range of between five and 10 NASF per student FTE is the norm. This square footage is carefully considered through a thorough review of the program mix and scale of the campus. The metric used for this study was seven NASF per student FTE.

Open labs should be designed with flexibility for adaptation and deviation. Like instructional labs, open labs should feature mobile student stations, flexible power locations and overhead services to ensure easy reconfiguration and flexibility of use. Students often work in groups. Discussion and presentation space should be considered, as should writable wall surface and presentation abilities. Storage for student projects and materials should also be a consideration. Adjacency is important with open labs, as maker spaces should often be located near shops, support, and outdoor spaces. NKU's shortage of open labs includes a lack of maker space for students to produce their own material in such disciplines as engineering technology and visual arts. The shortage also accounts for the need for additional music practice rooms and animation laboratories.

*Health Innovation Center*




**METRICS**

**320**

NASF

per flexible research module

***3** modules in the sciences*
***1** module in psychology*

**KEY TAKEAWAYS**

- Needs developed based on current and desired research activity
- Lack of interdisciplinary research space
- No research space for engineering technology
- Did not build in additional growth in vivaria space

## Research Laboratories

*Research activities can be space and energy-intensive and require careful planning for high utilization. Unlike instructional space—there are no clear space metric trends with research laboratories.*

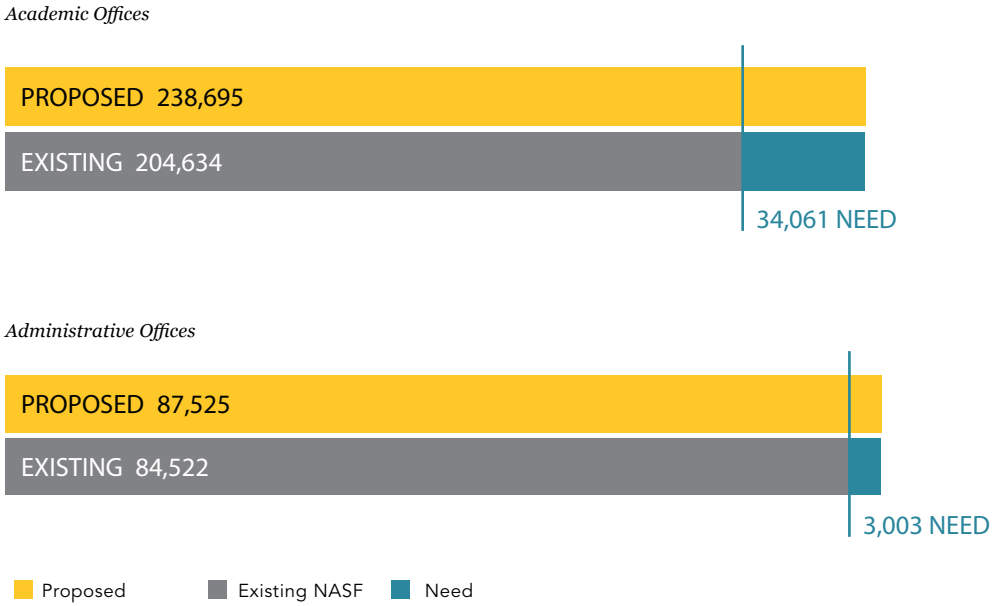
Research labs are spaces used for experimentation or training in research methods and observation, and they are not typically scheduled. Research is inherently complicated. When most people think of research space, they picture a scientific wet lab where biological matter, chemicals, or other materials are tested. The type of lab usually is equipped with benches, running water, ventilation (fume hoods), various scopes and equipment, gases, and piped utilities, and therefore requires considerable thought when planning infrastructure and services. Realistically, research takes on many forms, all of which require numerous lab types. As such, the traditional nomenclature of "wet lab" and "dry lab" is not always adequate in describing lab needs today.

As universities become more intentionally collaborative, research increasingly transcends traditional disciplinary boundaries. The research lab typology is shifting from wet to dry research and from static, individual labs to open, shared space. Research is expensive and space intensive. Flexibility is preferred as many researchers use a mix of lab types. Open lab formats are becoming more common across research institutions and can increase efficiency; however, efficiency and productivity cannot be measured the same between disciplines. Designing flexibility into

today's research labs pays off in efficiency, grant dollars, and recruitment and retention. The interdisciplinary and transdisciplinary nature of research creates the need for third spaces—spaces outside the lab where students and researchers from different disciplines can collaborate. At NKU, the current push toward collaborative and interdisciplinary activity increases the need for these types of spaces. Additionally, undergraduate students who engage in research early in their academic career are more likely to complete their degree. For this reason, the number of students participating in research at NKU is steadily increasing, consequently creating additional demand for research space.

Research space is assigned departmentally. There is no metric which considers the various dynamics affecting research space-needs, including support staff, equipment, funding and recruitment of faculty and students. Some disciplines, such as math and statistics, do not require a typical lab environment but instead need a dedicated collaboration space for research. Other disciplines, such as psychology and education, work with human subjects and need an accessible and outward-facing research space whereas vivarium research space-needs to be in a secure and controlled environment away from core activity. In some departments, research is being conducted but only a percentage of that research is grant-funded. While an allocation per principal investigator (PI) would over-generate the need for space, a pure allocation of ~850 NASF would be adequate for an entire interdisciplinary group or a mathematics department. The space-needs were developed based on current and desired research activity. Findings point toward doubling the amount of space allocated to research on campus.


*Herrmann Science Center*




**METRICS**

***130***

NASF per office

***25***

NASF per service space

***30***

NASF conference

**KEY TAKEAWAYS**

- Includes offices, office service space, and conference rooms
- Some departments are split across buildings
- Shortage of conference rooms

## Office Space

*Office space makes up 24 percent of NKU's academic space, and efficiencies can have significant impact on space use.*

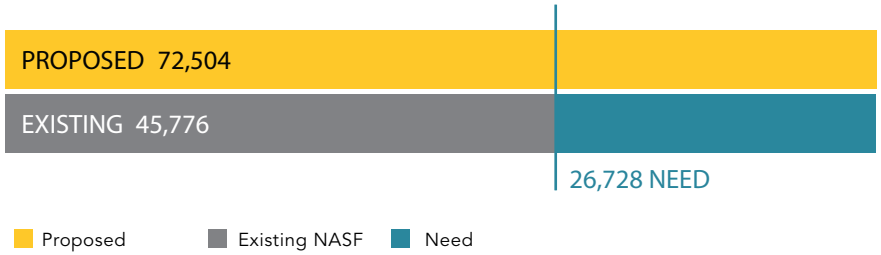
Current workplace trends focus on creating innovative, energizing office environments through modular and ergonomic furniture, natural light, views, creativity, innovation, and technology. Space allocated to individual offices is being reduced in favor of open, flexible, team-based spaces for collaboration and sharing. Newer buildings at NKU reflect the recent trend of smaller offices and more space for informal gatherings and collaboration. NKU's current office standard is 120 NASF, with the average current faculty office size on campus being 124 NASF and the average office being 136 NASF.

Today's office space metrics are less than historical space metrics. A couple of decades ago, it was common on many college campuses to see 140 to 150 NASF per full-time faculty or professional, non-faculty person. You can see this larger metric in the existing offices in Nunn Hall. At most public institutions, this number has dropped to around 110 to 120 NASF per full-time faculty or professional, non-faculty person. While designing for new construction or renovation, such as the Albright Health Center or Founders Hall, lower space-per-person allocations are appropriate. At NKU, office size varies significantly from building to building, indicating opportunities for better efficiency as renovations occur. However, in reality, existing office spaces are not easily or economically reconfigured.

To apply smaller space allocations per person would incorrectly show a surplus of office space. Therefore, the space allocation has been set higher to accommodate legacy offices. The metric was set at 120 NASF per office with an additional allowance of 25 NASF for service space and 30 NASF for conference space. At NKU, departments are split across buildings and there is a need for meeting and conference spaces for both academic and administrative units.

One size does not fit all when it comes to faculty and staff offices at a university, and a cultural shift may be necessary in some departments to make a modern, open-office environment successful. For the humanities and social sciences, where research is typically done within the office, consideration should be given to a small additional allocation of office space for research as well as creating collaborative meeting and conference environments in support of team-based research. Some offices have resource centers, testing centers, or other additional space allocations that are required to serve a designated institutional population.

*Lucas Administrative Center*




**METRICS**

***27,450 + 6***

NASF / Student FTE
over 5,000

**KEY TAKEAWAYS**

- Rehearsals and performances are held in the same location
- Student-run gallery was co-opted by print laboratory
- Wayfinding to assembly spaces is a problem

*Herrmann Science Center*

## Assembly and Exhibition

*Events and exhibits enrich campus life and should take place across campus to support the university's mission.*

Assembly and exhibit space need is driven not only by academic programs, but by the university's mission. Campus assembly and exhibition spaces help attract and retain quality students in the arts while providing important opportunities for community outreach. Assembly and exhibition space encompasses any space on campus designated and equipped for the assembly of a large number of people and in direct support of academic programs and experiences. At NKU, examples include the George and Ellen Rieveschl Digitorium and the Anthropology Museum as well as the Corbett Theatre and the Haile Planetarium.

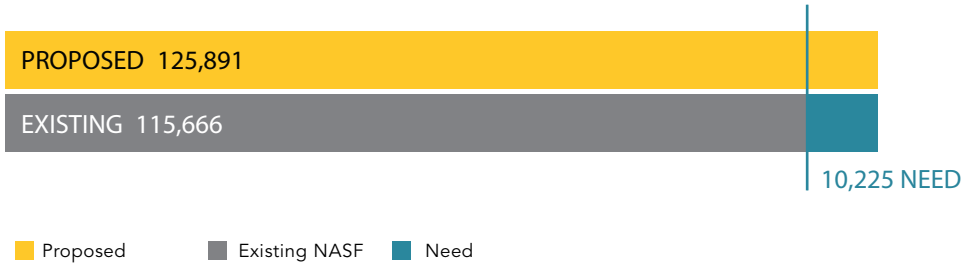
The guideline that was applied to space in this category is promulgated by the Association for Learning Environments (formally the Council of Educational Facility Planners International). For institutions with more than 5,000 students, the guideline has a core allowance of 27,450 NASF, with an additional six NASF per student headcount for student levels over 5,000. Application of this guideline showed a shortage of approximately 26,700 NASF which included a 100-seat recital space for music as well as additional performance space for theater and dance.

## Student-Centered Space

*Learning and innovation happen everywhere; the student life and social space strategy is a critical component of the intellectual environment. Student spaces provide opportunities for connections, collaboration, and learning outside the classroom.*

Student-centered space includes media production, assembly, exhibition, food facilities, lounges, merchandising, recreation, meeting rooms, and central storage. Although much of this space is concentrated in the Votruba Student Union and University Center, student-centered space can also be found in Steely Library, Landrum Hall, Griffin Hall, and the BB&T Arena, among other locations. Student-centered space provides a compelling and holistic student experience, attracts students to live on campus, and supports student success. A target metric for student space is 10 NASF per student headcount.

The Votruba Student Union has a broad range of needs—it lacks space for a multitude of student uses from study space to student organization space as well as spaces serving diverse populations. Student-centered space does not need to be centralized, it can be interspersed with study/collaboration space throughout the campus. A shortage of meeting spaces was identified across campus, and evidence suggests that students use classroom space when available. Scheduling software could help to formalize the use of classrooms, allowing available rooms to be reserved for student use.




**METRICS**

***10***

NASF
per student headcount

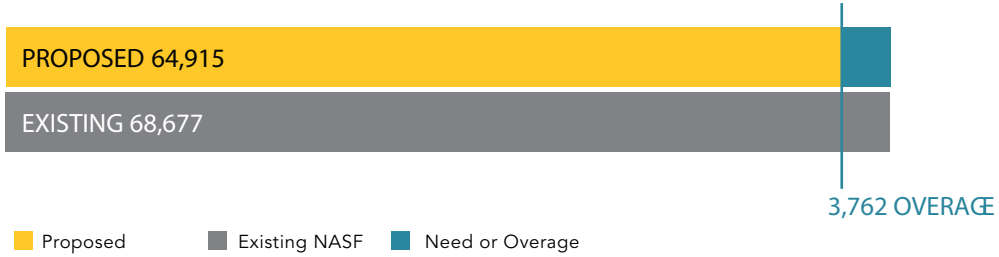
**KEY TAKEAWAYS**

- Category includes student organization spaces, dining services, student lounges, and the bookstore
- Student organizations have inadequate space in the Votruba Student Union
- Bookstore lacks sufficient storage space
- Many buildings lack student lounge space


*Landrum Hall*

*Library and Study Space*


*Steely Library*




**METRICS CONSIDERATIONS**

Physical collection volume

***35***

NASF per study station

***15%***

Service space factor

***13%***

of non-law students to generate number of study seats

**KEY TAKEAWAYS**

- Quality and quantity of study space is not equitable between buildings and colleges
- Library is one of three critical shared common spaces for commuter
- Lack of informal collaboration space

## Steely Library and Study Space

*Modern university libraries serve as neutral spaces for collaboration and access to shared resources. The adoption of active learning pedagogies increases the need for collaboration space on campus. Most campuses are struggling to create these spaces in existing facilities, many of which lack this type of space.*

Today, libraries are a hub of activity welcoming to all, providing access to shared services and much more. The library also provides important common areas to support NKU's large commuter population. The amount of space within Steely Library itself is sufficient; however, the space assessment shows a need for decentralized study and collaboration spaces throughout campus. Locating such spaces throughout campus facilitates creative collisions among students, faculty and staff. These "sticky" space environments are where students can work together, students and faculty can meet outside of class times, and faculty can informally meet with each other. Group study rooms, individual study areas, teleconferencing rooms, lab write-up areas, and maker spaces are all included in this category.

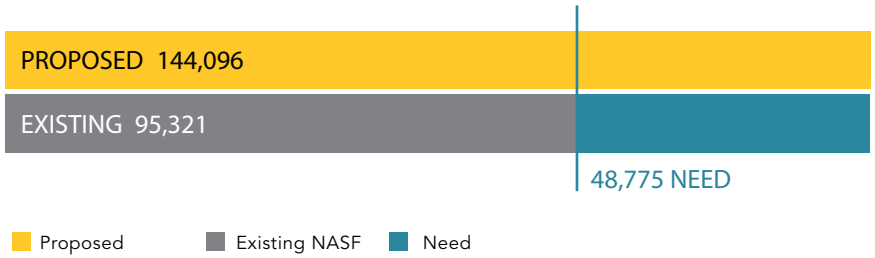
Study space to support modern pedagogies and research is needed in each academic building at a rate of approximately 15 percent of classroom and instructional lab space. The existing quality and quantity of study space is not equitable between buildings and colleges.

There is a significant lack of informal study space in older buildings that house math, law, the arts, and the social sciences. Adding seating alcoves to circulation areas, such as the ones at the Health Innovation Center, can allow for quick exchanges between student and faculty outside of class and can also minimize congestion as students wait to enter classrooms. Commons and library space should be attractive and flexible, offering casual and relaxed furnishings for students, access to power, and the ability to bring food and beverages into these spaces. Acoustics should be considered to allow for productive conversations. The space assessment recognizes these spaces are often informal, supporting ubiquitous creativity, technological capacity, resources for innovation, and encouragement of holistic physical and mental health of the entire campus community.

There are three categories of space required for this space category—stack or collections space, study or collaboration space (does not include research-collaboration space), and service space. The amount of space needed in each of these areas varies depending on the type of institution, type of library, and the level of services performed behind the scenes in the library. The space-needs assessment evaluated the size of the physical collection, the number of study stations available between the two libraries, and the informal collaboration space located throughout campus to determine that NKU has a need for approximately 20,000 NASF of additional space in this category to support its current population.

*Steely Library*

*Health Innovation Center*




**METRICS**

***12***

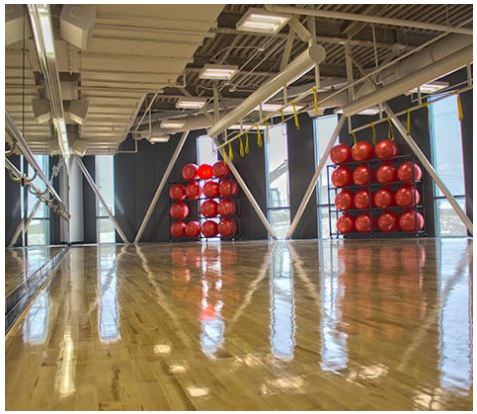
NASF per
100% of undergraduates,
25% of graduations,
+15% of employees

**KEY TAKEAWAYS**

- Short on activity space
- Short on court space given community space

## Kinesiology and Recreation Space

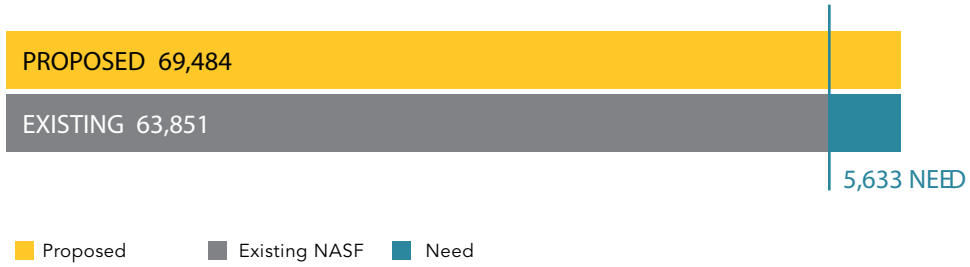
Universities across the country are putting a renewed focus on well-being. Kinesiology and recreation space, located in the Albright Health Center, provides gymnasiums, court facilities, weight training, training facilities, the indoor running track, and fitness studios as well as supporting locker room and shower / toilet facilities, equipment storage and check-out rooms, and rehabilitation facilities. The indoor space required in this category was based on the student headcount. The metric used 12 NASF per student for 100 percent of the undergraduate student population, 25 percent of the graduate population, and 15 percent of non-student employees. Online and AOL students were excluded from the calculation. Application of this metric suggests a deficit of nearly 50,000 NASF with a stated need for additional activity and court space.

*Campus Recreation Center*

## Operations and Maintenance

Operations and maintenance space, the space required to keep the institution running, is usually quantified as a percentage of all other space on campus. For NKU, the metric applied for operations and maintenance was 4 percent. NKU has a central warehouse but its size is inadequate, and as a result, storage is spread throughout the campus. As the university expands, additional space will be required to keep pace with facility maintenance needs.




## Change Over Time

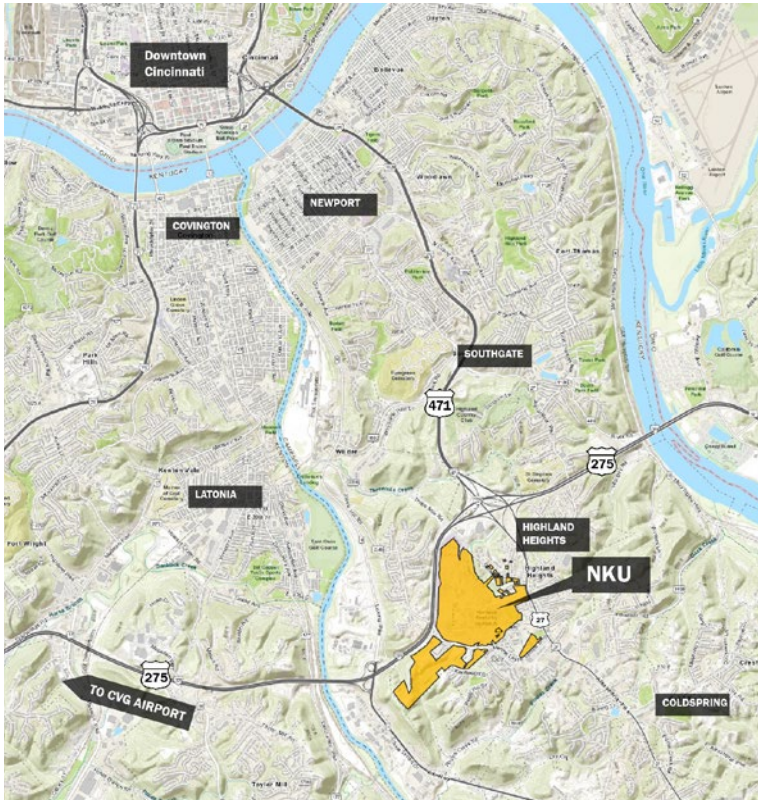
The space-needs analysis captures a specific moment in time and will require periodic reassessment. There are several drivers of future space-needs that will impact these needs in the future such as changes in enrollment, programs, course delivery methods, faculty and staff population, research initiatives and external partnerships. The COVID-19 pandemic has also introduced the possibility for significant changes in the way campus spaces are used in the future. While it appears that hybrid courses comprising both online and in-person components may continue beyond the pandemic as a norm, the need to provide quiet, Wi-Fi enabled space on campus, for students enrolled in synchronous online courses may continue to grow as well. With the success of telework, institutions may need less office space than in 2019 and before. Wellness may be a more significant factor driving space use, as will space to accommodate informal and impromptu collaborations and spaces for skills-based learning and practice.

# Key Drivers

The master plan vision reflects the existing campus context and seeks to leverage buildings, open spaces, and infrastructure to support current and future needs. The guiding principles set the core values and intent for physical planning decisions and serve as a benchmark against which future planning decisions can be measured. The concept plan translates the guiding principles into a shared vision for the spatial development of the university that illustrates, at a broad level, the structure, layout, and relationships of open spaces, circulation systems, buildings, gateways, and focal points.

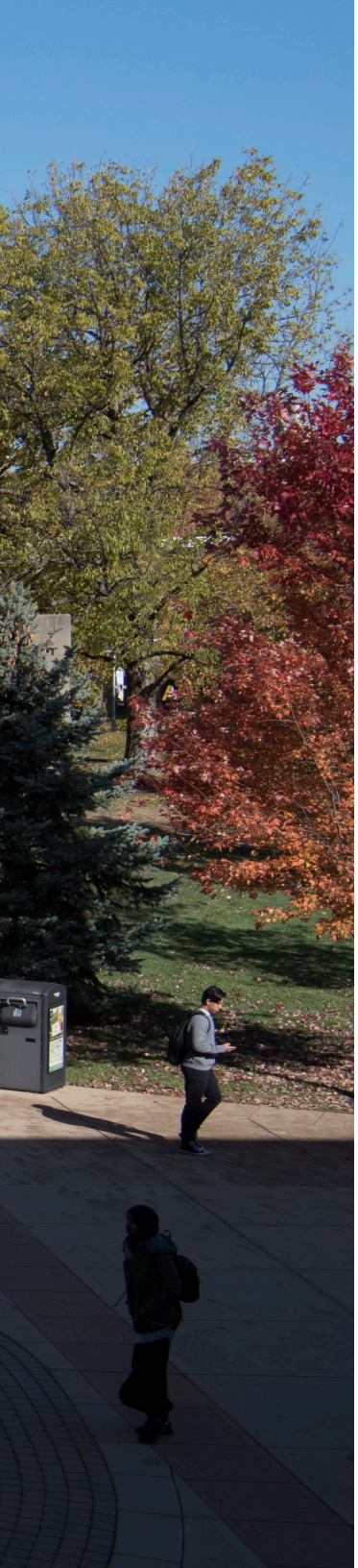
# Campus Context

Located in the Cincinnati metropolitan area, Northern Kentucky University is a growing university with a Fall 2019 total enrollment of 15,687 and 16,212 in Fall 2020. The 430-acre campus is nestled within the hills of northern Kentucky in the city of Highland Heights, approximately seven miles southeast of downtown Cincinnati. The university is bounded to the west by Interstate 275, the beltway around Cincinnati, and is situated in a suburban context with single-family homes to the south and U.S. 27 to the east.




*Regional Context Diagram*


*Votruba Student Union*



*Central Plaza*

*Original Quad*

## Open Space

The academic core is comprised of three distinct, interconnected open spaces: Central Plaza, Loch Norse, and the Oval. Central Plaza, the organizing element of the original campus plan, is an irregular quad flanked by Nunn Hall and Founders Hall to the west and Steely Library and the Fine Arts Center to the east. The plaza is anchored by the Votruba Student Union and the University Center to the south and enclosed by the Landrum Academic Center to the north. Wide pedestrian paths surround a knoll with a stand of old growth trees in the southern portion of the quad, while the northern open space is primarily hardscape. Improvements to the plaza since 2000 are emblematic of a renewed focus on refining campus open spaces to include additional shade trees, seating options, and the introduction of a richer palate of materials to complement concrete as the primary hardscape material. Primary pedestrian pathways oriented north-south and east-west cross through the plaza and activate the space.

*Loch Norse*

To the east of Central Plaza, a series of terraced walks and stairs navigate about 30 feet of grade change to Loch Norse, a stormwater retention basin renovated in 2004 to be leveraged as an iconic landscape feature. With the backdrop of the Fine Arts Center and enclosed by the Business Academic Center and the Mathematics-Education-Psychology Center, the open space around Loch Norse is characterized by expansive views less defined by buildings than other spaces within the campus core. New construction and the development of associated open space would help to reduce the scale and activate the perimeter of Loch Norse. Landscape improvements such as no-mow zones, increased tree canopy, and native plants offer opportunities to address sustainability goals.

To the west, the open space character transitions to a contemporary landscape organized around a green oval and fronted by the recently completed Health Innovation Center and Griffin Hall. The landscape focuses on sustainability and features a diverse palette of native plantings.

*STEM Quad*

**OPEN SPACE TYPOLOGY**

- Formal Landscape
- Informal Landscape
- Plaza / Hardscape
- Sidewalk network

**OPEN SPACES**

- Paved pathway
- 5-minute walk
- 10-minute walk

## TOPOGRAPHY

+900

+850

+700

Open spaces outside the campus core are influenced by the hilly topography inherent to the region, with a palette of concrete paths, expansive grassy plateaus and slopes, sporadic shade trees, and perimeter wooded buffers. Landscapes outside the campus core in general are loosely defined by buildings and are often flanked by roads or surface parking lots. Depressions in the landscape are utilized as mowed stormwater swales and detention ponds. NKU recently installed rain gardens and bioswales adjacent to some parking areas that reduce surface runoff from impervious surfaces and add visual interest and wildlife habitat to campus perimeter areas. Moving outward toward the campus perimeter, landscapes are increasingly forested with steep slopes and limited development opportunities. No-mow areas have been designated along the campus perimeter to increase habitat for wildlife, reduce management costs, and progress campus-wide sustainability initiatives.

## Architecture

The Highland Heights campus developed quickly with the first building, Nunn Hall, opening in 1972 followed by Regents Hall, Founders Hall, Steely Library, Landrum Academic Center, the Fine Arts Center, and the University Center all completed in less than 10 years. Extensive development within a short period of time resulted in a cohesive and architecturally consistent campus. The original buildings are primarily cast-in-place concrete representative of the brutalist and modernist aesthetic prevalent during the 1970s and early 1980s.

> ***Buff-colored concrete and red standing-seam metal roofs unite the campus and create a highly integrated architectural fabric.***

Recent additions to the brutalist buildings have done an outstanding job of honoring the aesthetic of the original buildings while introducing transparency and new materials. The Votruba Student Union, the Health Innovation Center, Albright Health Center expansion, and Griffin Hall have incorporated compatible materials such as metal panels, screens, and accent colors to create a successful blend of new, dynamic forms set against the backdrop of the original brutalist architecture.

The housing in the north neighborhood, Boothe Village, although residential construction, follows a similar color palette to the academic core - light buff colors of siding, wall panels and masonry. There are multiple colors used to accent elements, but the materials are relatively narrow in color range creating a consistency that ties the campus together.

*Nunn Hall*


*Steely Library*


*Griffin Hall*

*Herrmann Science Center*

*Health Innovation Center*


*Votruba Student Union*

## Building Use and Condition

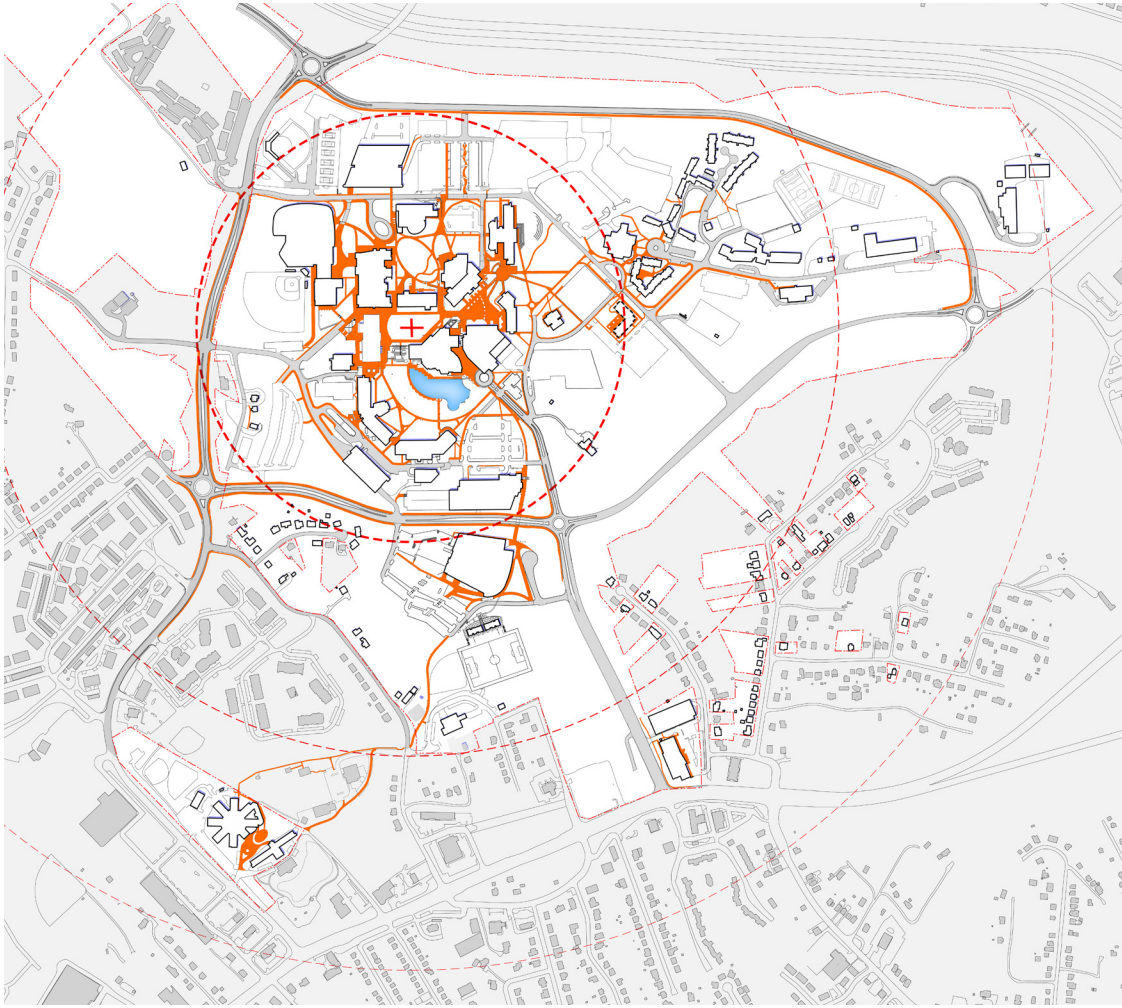
A key driver of the Master Plan is improving the quality of space by identifying buildings that require major renovation and addressing deferred maintenance. The space assessment evaluated both building condition as determined by NKU facilities data, and space suitability as determined by the master planning team's observations. Facility condition data reveals that there is a disparity in space quality from building to building, and a number of buildings within the campus core need major renovations totaling 25-to-50 percent of building replacement cost. Buildings requiring major renovation include Nunn Hall, the Business Academic Center, the Fine Arts Center, Landrum Academic Center, and the Mathematics-Education-Psychology Center. Both the Fine Arts Center and Nunn Hall were determined to not meet current needs. In addition to program deficiencies, Fine Arts, Landrum and Nunn have experienced significant floor heaving damage as a result of expansive shale. Steely Library and the Lucas Administrative Center also require major renovation. Housing facilities identified for major renovation include Callahan Hall, Norse Hall and Commonwealth and Kentucky Halls. The Woodcrest Apartments were vacated in 2020 and are slated for demolition.

**BUILDING USE**

- Academic / Research
- Administrative
- Library
- Student housing
- Recreation / Athletic
- Student life
- Facilities
- Garage
- Vacant
- Future

## Pedestrian Circulation and Accessibility

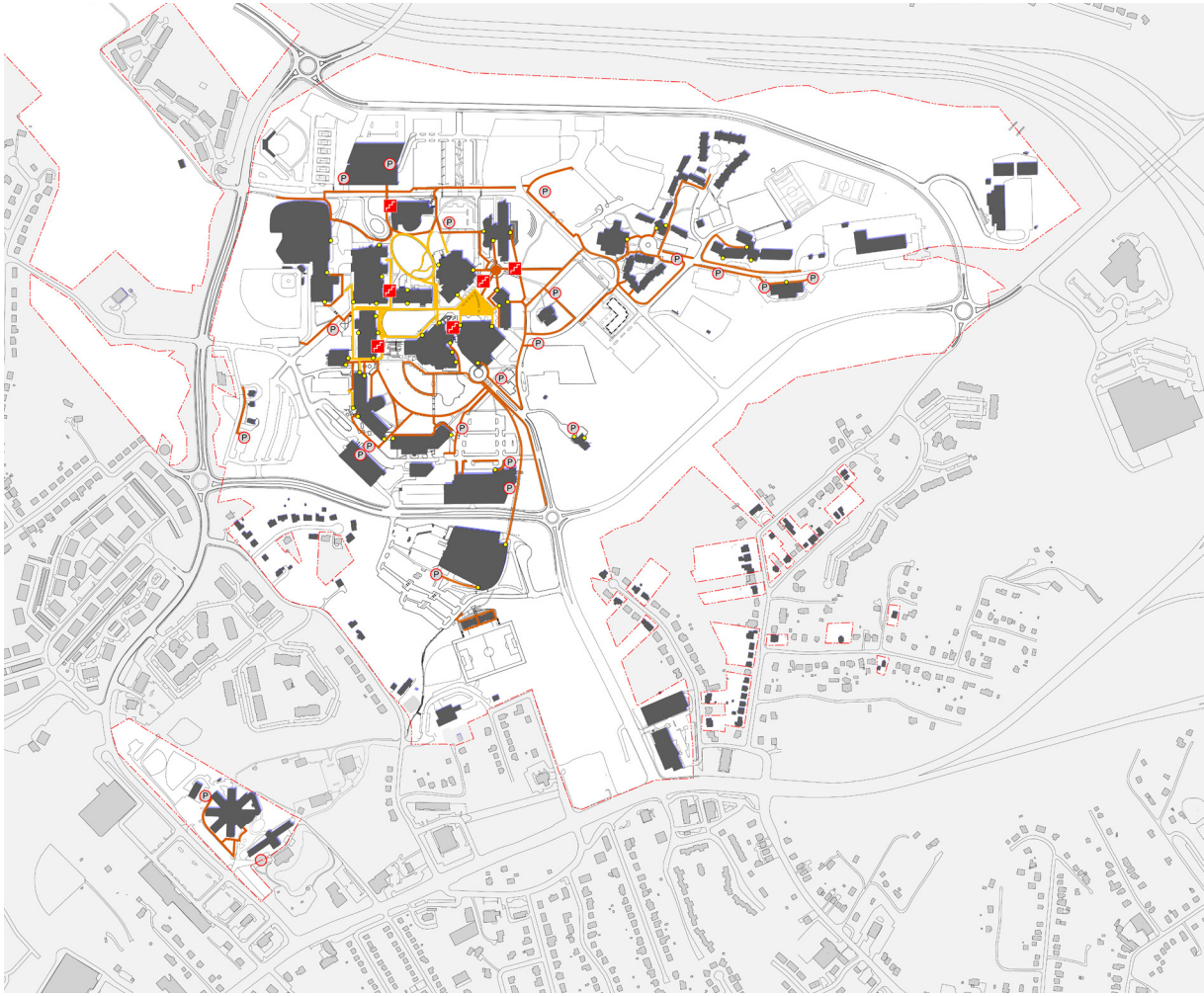
The campus has a compact academic core with vehicular circulation organized at the campus perimeter, thus minimizing conflicts between vehicular and pedestrian circulation. A robust network of pedestrian pathways within the academic core provides access to most destinations within a five-minute walking radius. However, the walking culture on campus is limited by a commuter mindset of driving and parking close to a final destination. While the academic core is compact and walkable, perimeter parking, the arena, and non-university properties separate both housing neighborhoods from the campus core. The north housing neighborhood, Boothe Village, lies beyond the five-minute walking radius and the east housing neighborhood, known as East Village, lies beyond the 10-minute walking radius.



**PEDESTRIAN NETWORK**

- 5-minute walk
- Sidewalk network
- Campus road

Campus grade changes create challenges for accessibility, which are resolved with marked routes that use strategically placed ramps and building elevators to provide ADA-compliant paths.

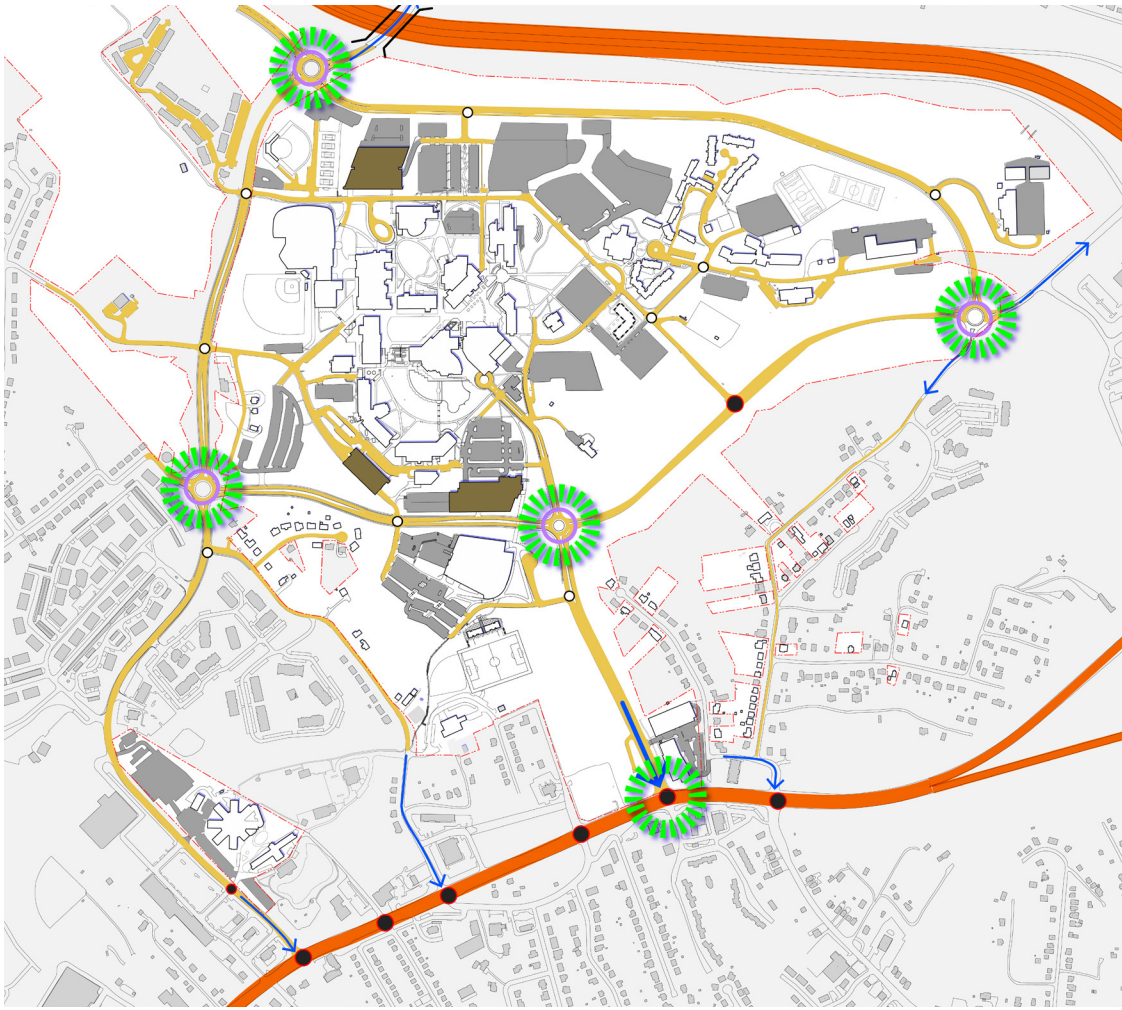


**ACCESSIBILITY**

- Accessibility route (plaza Level)
- Accessibility route (ground level)
- Handicap parking
- Accessible building entrance

## Vehicular Circulation

Since the inception of the first master plan in 1970, a campus ring road has been a central component of vehicular circulation, allowing the academic core of campus to remain primarily a pedestrian zone. As the campus has expanded, the ring road has continued to provide the organizational framework for primary vehicular circulation. A second vehicular circulation system has expanded the original ring road, growing outward to include Norse Boulevard to the west, University Drive to the east, and Johns Hill Road to the south. Kenton Drive, Nunn Drive, and Campus Drive serve as secondary access roads to provide drop-offs, parking access, and building service and with the exception of Kenton Drive, no longer provide access around the campus as they once did. Construction of Norse Boulevard in 2017, with its roundabouts at each end, realignment of Johns Hills Road in 2012, and extension of University Drive in 2007 have clarified circulation, providing the ability to circulate around the campus perimeter to relieve congestion from internal access roads. However, the reduced size of the roundabout at the intersection of Nunn Drive and University Drive creates a challenge to motorists more comfortable with the size and scale of the roundabouts to the north and south.



**ROADS / CIRCULATION**

- Campus road
- Major road
- Access point / gateway
- Parking garage
- Surface parking
- Traffic circle
- Signalized intersection
- Overpass

| PARKING LOTS AND GARAGES | Current Paved TOTALS | Current Gravel TOTALS | GRAND TOTALS |
|---|---|---|---|
| **East Side of Campus** | | | |
| Subtotal | 2,565 | 0 | 2,565 |
| **West Side of Campus** | | | |
| Subtotal | 3,329 | 75 | 3,404 |
| **Callahan & Other Areas** | | | |
| Subtotal | 730 | 0 | 730 |
| **GRAND TOTALS** | **6,624** | **75** | **6,699** |

NKU has a total of approximately 6,700 parking spaces on campus. Three parking garages provide 1,800 spaces and are strategically located in close proximity to the academic core, the BB&T Arena, and the Welcome Center. Surface lots K, L, M, P, E, F and I, located between the campus core and student housing to the north and accessed from Kenton Drive, represent a large parking capacity. These lots comprise about a third of campus parking spaces and are favored by many commuter students. Lots K and L are open lots, available to anyone with a permit. Lots M and P are reserved for student permit holders, while lot E is a faculty/staff lot. In the long-term, access to lots K, L, M, and P could be provided from Norse Boulevard in order to eliminate vehicular traffic on Kenton Drive.

According to the 2019 Parking Services Survey, 95 percent of campus students, faculty and staff responded that they utilized parking on campus at least once during the semester, indicating the current reliance on parking facilities to serve the campus population. The number of existing spaces is adequate to serve current needs, but both the University Drive and Kenton Drive garages can accommodate future expansion should additional spaces be required.

**PARKING FACILITIES**

Structure parking

Surface parking

## Alternative Transportation

NKU students, faculty and staff have access to regional bus service through the Transit Authority of Northern Kentucky (TANK) which provides access to downtown Cincinnati through the NKU/Alexandria line. With recently implemented TANK system changes, the 35X cross-county route and the 16 route were eliminated. The 25 and 25X continue to serve NKU, featuring increased service, but the routes run only in the north-south direction in Campbell County. For destinations west of campus in northern Kentucky or in Cincinnati, long travel times for relatively short distances are typical. In the 2019 Parking Services Survey, only about 15.5 percent of respondents indicated they utilized the TANK system. Respondents using the TANK system had high satisfaction with the free ride program, UPass, with 88 percent responding satisfied or very satisfied with ease of use and 81 percent responding satisfied or very satisfied with availability.  NKU also contracts with TANK to provide a shuttle to conveniently move students during the semester between on-campus destinations. 2019 survey respondents indicated 44 percent were satisfied or very satisfied with availability of the shuttle.

NKU maintains a bike-share program launched in 2016 with stations located at the Welcome Center, Callahan Hall, the Votruba Student Union, and Norse Commons. The sidewalk along Norse Boulevard was designed as a multiuse path combining bike and pedestrian use. Other than Norse Boulevard, university roads do not currently feature dedicated bike infrastructure such as bike lanes.


*Commonwealth Hall*

*Callahan Hall*

*Kentucky Hall*

*Northern Terrace*

*University Suites*

*Norse Hall*

| TRADITIONAL (Common Bath) | SEMI-SUITE (Designated Bath) | SUITE (Designated Bath+ Living) | APARTMENT (Designated Bath + Living + Kitchen) |
|---|---|---|---|

## Housing

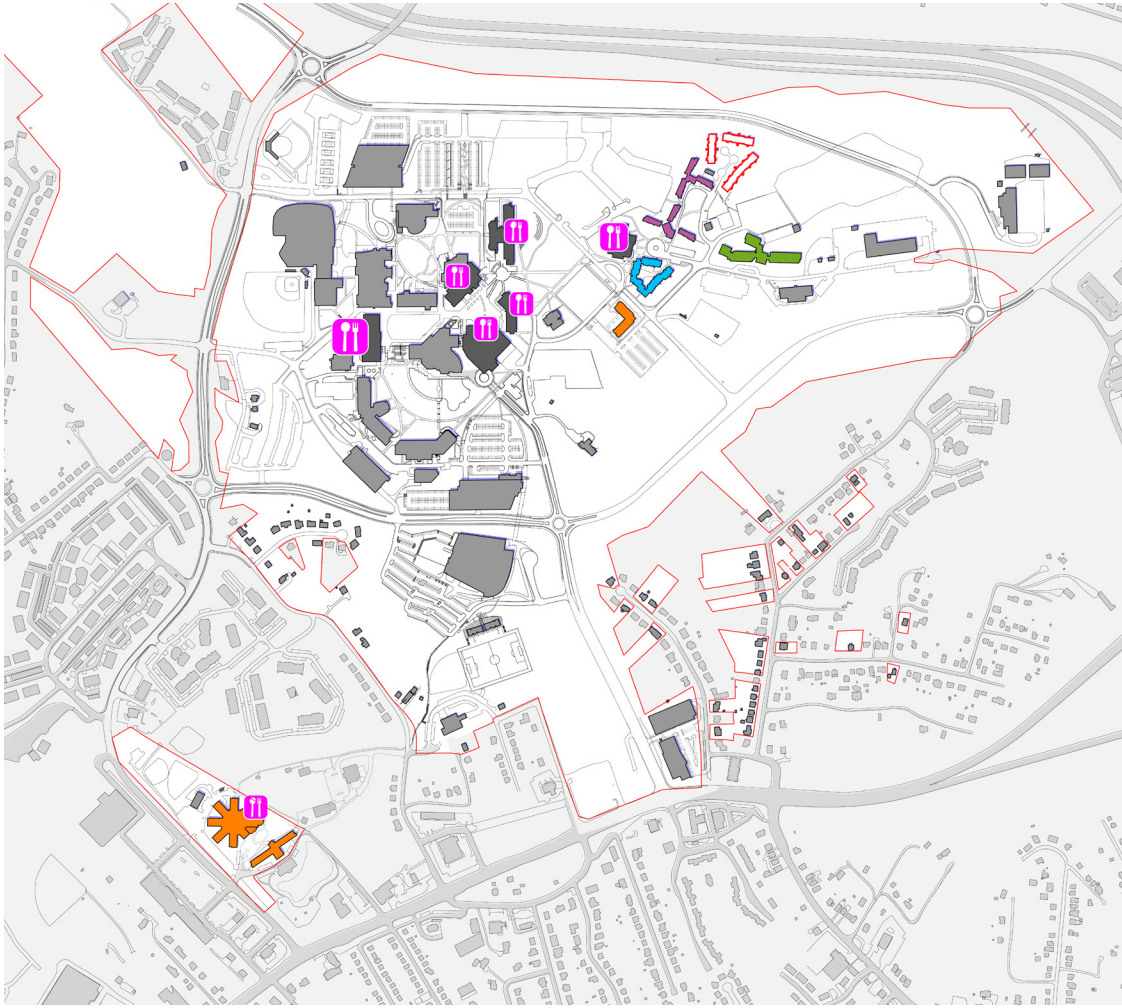
NKU's current residential bed capacity is 1,716 with a range of traditional, quad, suite, and apartment-style configurations. The north housing community is located within a seven-minute walk from the academic core. Commonwealth Hall and Kentucky Hall are traditional bed configurations; Norse Hall and University Suites are apartment and suite configurations, respectfully. In the east housing neighborhood, a 15-minute walk to the academic core, Callahan Hall and Northern Terrace offer semi-suite configurations. A new residence hall is currently under construction and will add an additional 297 semi-suite beds to the northern housing community to replace the Woodcrest Apartments slated for demolition. The university does not dictate age-appropriate housing. First-year and upper-division students are distributed throughout all housing types. Honors College resident students are currently housed in Northern Terrace.

## Dining

The university is currently served by two meal-plan dining options, Norse Commons and Callahan Bistro. Norse Commons provides multiple food stations for all-you-care-to-eat (AYCTE) dining servicing the northern housing community. Callahan Bistro serves the east housing community and also provides an AYCTE model. Multiple retail dining options are located in the Votruba Student Union. Other retail food options are distributed throughout the academic core in Founders Hall, the Science Center, Landrum Academic Center, and Steely Library.

The 2019 Dining Survey, completed as part of the Master Plan, analyzed the utilization and satisfaction of dining on campus. Key findings and recommendations from the study included:

- Reduce daytime operations and offerings at Callahan Bistro. Replace AYCTE breakfast and lunch options with a la carte and/or grab-and-go options
- Expand the hours of operation in the Votruba Student Union to meet unmet demand for dinner
- Add a retail dining location either in the Mathematics-Education-Psychology Center or in the Business Academic Center.
- Alter the service style in some retail locations to offer more seated options for dinner
- Increase breakfast offerings in some retail locations to align with demand preferences as well as alleviate the reduced operations in Callahan Bistro



**HOUSING**

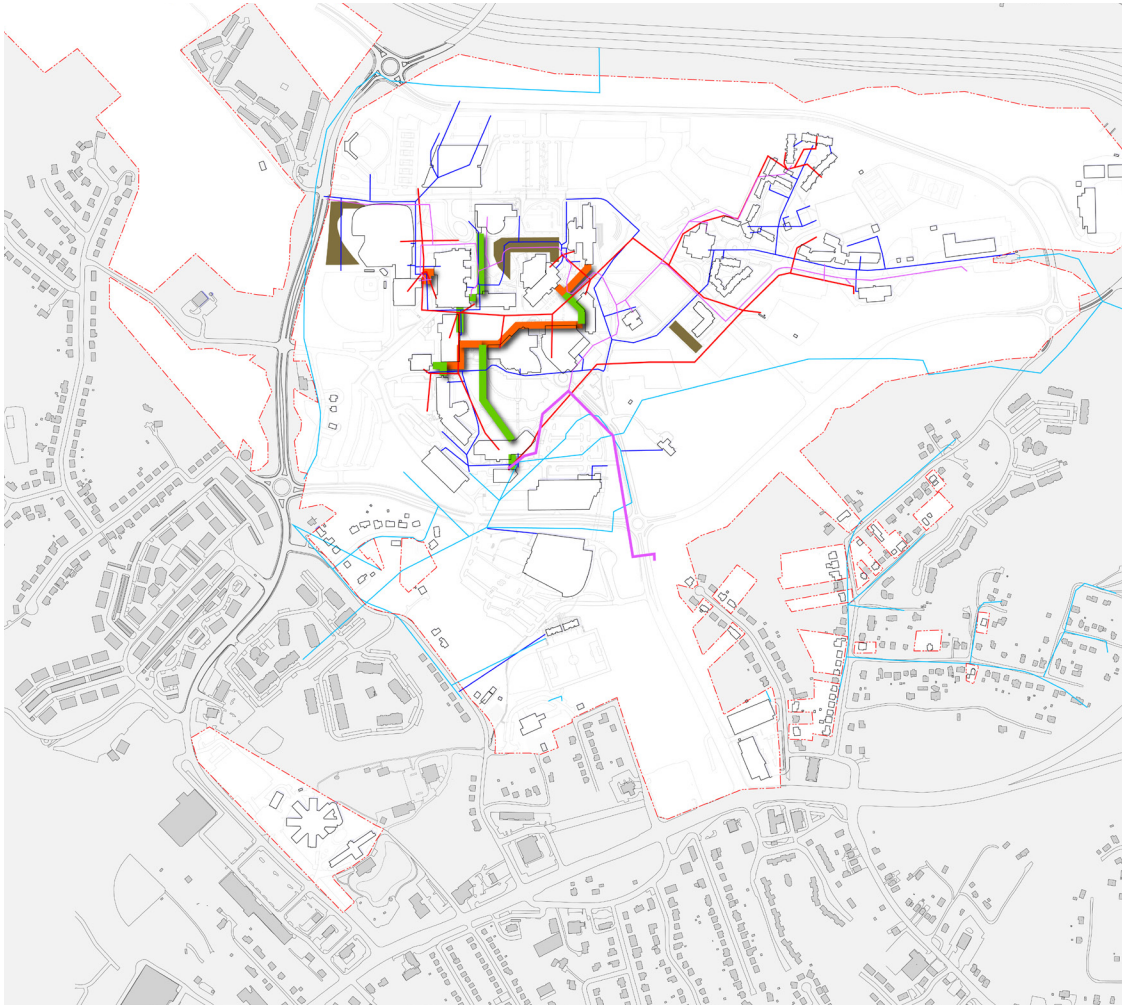
- Traditional / First Year
- Semi-Suite
- Suite
- Apartment
- Houses
- Food / Dining / Market
- Vacant

*NKU Power Plant*

## Utility Infrastructure

The university's central plant supplies climate control through its boiler and chiller infrastructure, including primary and secondary water pumps and electrical switchgear.  A utility tunnel connects the central plant to buildings within the academic core, providing ease of heating and cooling to these major campus buildings. In addition to the central plant, geothermal wells serve parts of the Albright Health Center, Founders Hall and the Health Innovation Center. The housing project currently under construction will operate solely with a geothermal well system.

The planning process included an analysis of existing utilities serving the campus and evaluated their capacity to support projects included in the Master Plan recommendations. CMTA identified locations of utility lines, analyzed chilled water pipe size and capacity, and analyzed the age and expected life of HVAC systems in each building. The evaluation included steam pipe size and capacity, natural gas distribution, and underground electrical service. Moody Engineering evaluated water service and issues related to storm water management. Sustainability goals were a consideration in all utility analysis with the 2050 Carbon Neutrality goal posing the most significant challenges to the existing system. Complete documentation of the utility infrastructure analysis can be found in the Appendix.



**UTILITIES**

- Gas high-pressure line
- Gas low-pressure line
- Electric line
- Water - NKU line
- Water - NKWD line
- Chilled water - unused capacity
- Chilled water - no spare capacity
- Geothermal

# Guiding Principles

*A benchmark to inform planning for the physical campus and as a foundation for master plan implementation through articulation of shared goals, guiding principles were developed with the campus community through a consensus-driven planning process. Four guiding principles will help guide future decisions as NKU continues to grow and serve the northern Kentucky region.*

## 1 Support a more engaged university

- Catalyze a regional eco-system through economic development, talent development, and entrepreneurship
- Support the expansion of public-private partnerships to accelerate innovation and entrepreneurship
- Serve the local community by expanding educational outreach and partnerships

## 2 Create a place of academic excellence

- Serve multiple student constituencies
- Support co-curricular learning
- Increase environments for flexible, experiential, and modular learning pathways


3

## Design a welcoming and desirable NKU experience

- Create a sense of belonging
- Improve campus edge identity and arrival
- Enhance internal and perimeter open space
- Improve connectivity between campus districts and to surrounding community

4

## Leverage campus assets to create value

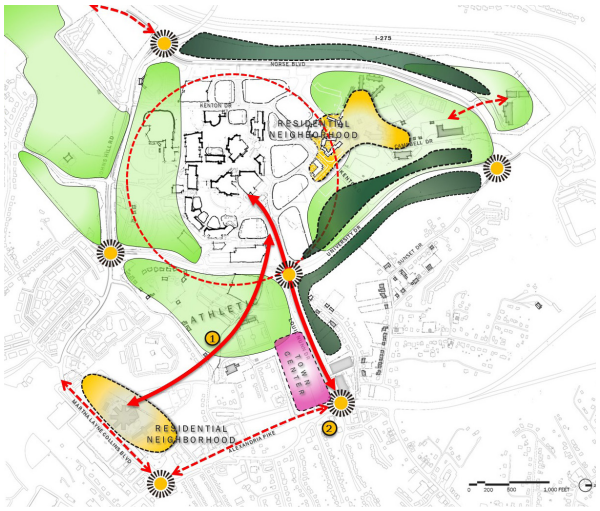
- Reinvest in existing facilities through renewal and stewardship
- Capitalize on shared facilities and maximize utilization
- Prioritize projects at a variety of scales that have the greatest impact
- Create a more sustainable NKU to ensure growth and longevity

# Concept Plan

The concept plan establishes a framework for opportunities to improve the physical campus and to test various development scenarios during the planning process. Building on NKU's strengths by leveraging the compact core and green-space network, the concept plan prioritized densification of the campus core. Near- and long-term additions and infill building sites were identified within the five-minute walking radius of the campus core. The concept plan also proposed unifying the campus perimeter and improving connectivity by creating welcoming arrival points, improving pedestrian paths, enhancing student housing, improving athletic facilities, and identifying opportunities for campus edge development.

**DENSIFY CAMPUS CORE**


**UNIFY AND ENHANCE PERIMETER**




**IMPROVE CONNECTIVITY**


I-275
NORSE BLVD
KENYON DR
JOHNS HILL RD
CAMPBELL DR
KENYON DR
UNIVERSITY DR
LOUIE NUNN DR
CONCEPT PLAN
Five-minute walk
Supporting program
Campus gateway
Green buffer
Connection
Town Center development
Campus housing

# Master Plan Goals and Strategies

The master-planning process evaluated recommendations for campus improvements based on the ability to support three goals:.

**Goal 1:** Optimize the Campus Core for Collaborative Teaching and Learning

**Goal 2:** Enhance the Student Experience

**Goal 3:** Define the Campus Perimeter

# Evaluation Criteria

The Master Plan targets and prioritizes campus investments that help to establish a cohesive physical vision for the campus in alignment with the university's strategic plan, *Success by Design*, and the planning principles established during the planning process. The Master Plan envisions near-term and mid-term projects which are identified for completion within 15 years as well as long-term initiatives which would occur beyond the 15-year planning horizon. The space assessment completed during the planning process identified 120,000 to 150,000 net square feet, or 200,000 to 250,000 gross square feet of space-needs campus wide in the near- and mid-term.

Campus investments should prioritize projects to support academic success, the student experience, and NKU's competitive advantage in STEM-H and the arts. The plan seeks to prioritize development in the academic core with projects that will help realize the university's strategic initiatives, leverage continued investment in existing buildings through renovations and additions, and utilize infill sites for new construction. Where possible, the plan recommends renovation of existing space to meet programmatic needs, improve adjacencies, address deferred maintenance, and increase efficiency. In the near- and mid-term, new construction is limited to creation of new spaces not feasible or cost prohibitive through renovation of existing buildings. Each campus investment was evaluated based on its ability to enable other key strategic projects, minimize impact on existing parking, and maximize existing campus infrastructure.

> ***The master-planning process identified three goals to guide the recommendations for campus improvements.***

**PROJECT OPTIONS AND DIRECTION PROPOSED IN THE MASTER PLAN WERE EVALUATED BOTH QUALITATIVELY AND QUANTITATIVELY.**

## Qualitatively

1. Project helps realize the visions of the strategic plan and planning principles
2. Project optimizes the locations and adjacencies of units and supports key initiatives
3. Ability to fund improvements

## Quantitatively

1. Project leverages existing space through renovation and utilizes new construction for spaces not otherwise feasible in existing space
2. Project cost, size, and distribution
3. Enabling projects and phasing of construction to meet near-term needs

# Goal 1:

## Optimize the Campus Core for Collaborative Teaching and Learning

The academic core is a compact intersection of academic disciplines. Arts and sciences, informatics, health and human services, law, business, and education are all located in close proximity providing opportunities for collaborative learning. Student-centered spaces including Steely Library, the Votruba Student Union, and the University Center are all located within a five-minute walk in the heart of the academic core and support the dynamic intersection of academic uses.

The Master Plan proposes projects that celebrate and build on the success of the academic core with enhanced co-location of disciplines, ensuring future flexibility in support of collaborative teaching and learning. The Master Plan identifies projects that leverage the existing campus by:

- Colocating disciplines to support collaboration and synergies
- Embracing the brutalist aesthetic while introducing transparency, new materials, and color
- Maximizing funding available for renovation and maintenance of existing buildings


*Central Plaza*


Steely Library
University Center
Votruba Student Union


*Proposed STEM Quad*

The sciences are currently located in the Herrmann Science Center, Griffin Hall, Founders Hall, the Health Innovation Center and the Mathematics-Education-Psychology Center (MP). The space-needs assessment found a significant need for additional class labs and research space as well as student collaboration and study space in older buildings.

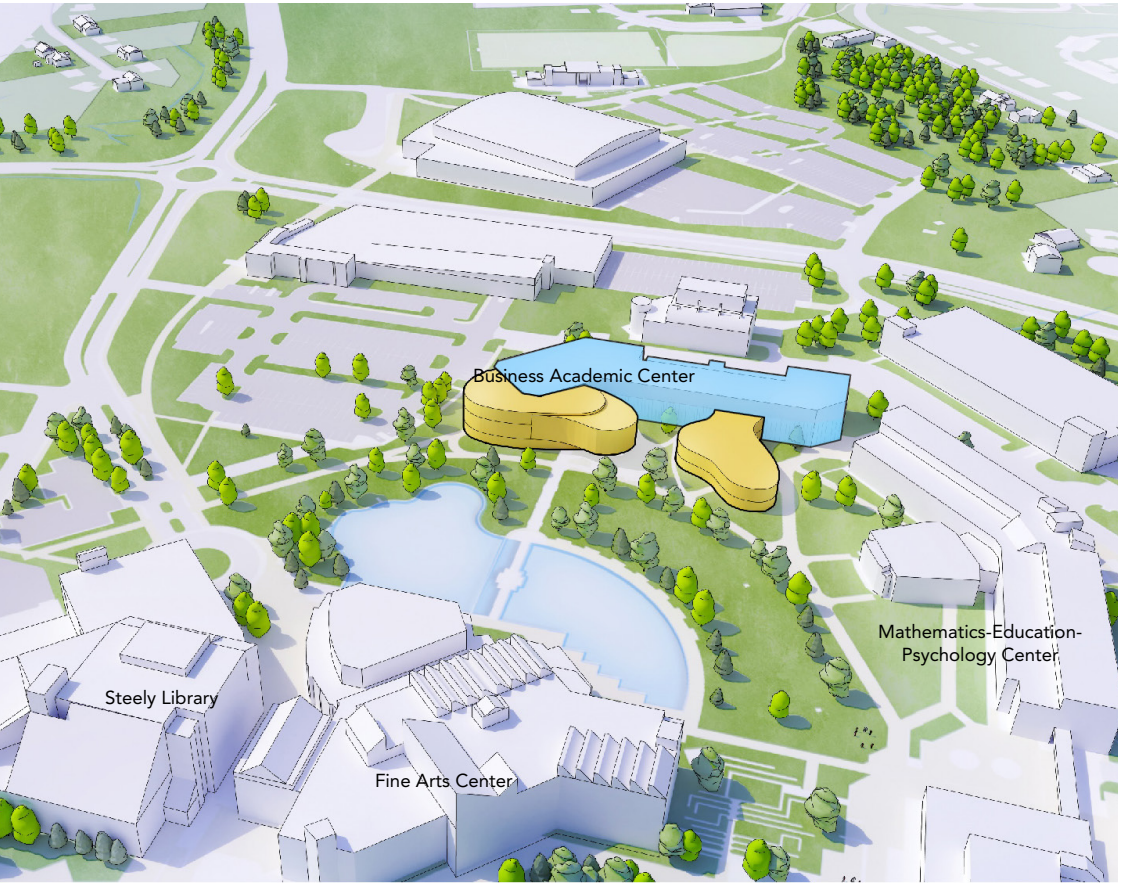
A proposed expansion of the Science Center will provide 40,000 NASF of new class labs and research space. The Science Center addition will also include swing space to house engineering technology, currently located in the Business Academic Center. The proposed addition is envisioned as a wing to the north, integrated with the


*View of Proposed Herrmann Science Center Addition*

existing building's corridors to support ease of travel and interdisciplinary interactions while ensuring the future flexibility of a single building.

A new Integrated Science Building is planned on an infill site between Herrmann Science Center and Griffin Hall, completing NKU's STEM quad and addressing the need for additional office space, class labs, research labs, a dedicated visualization lab, and an internet-of-things lab.

A proposed bridge connection to Griffin Hall will allow efficient colocation of units for the College of Informatics. This project may also include additional space for the College of Health & Human Services. Since there are no enabling projects, funding and space-needs will determine the timing of this project.




*Proposed Business Academic Center Renovation and Additions*

## Law and Business

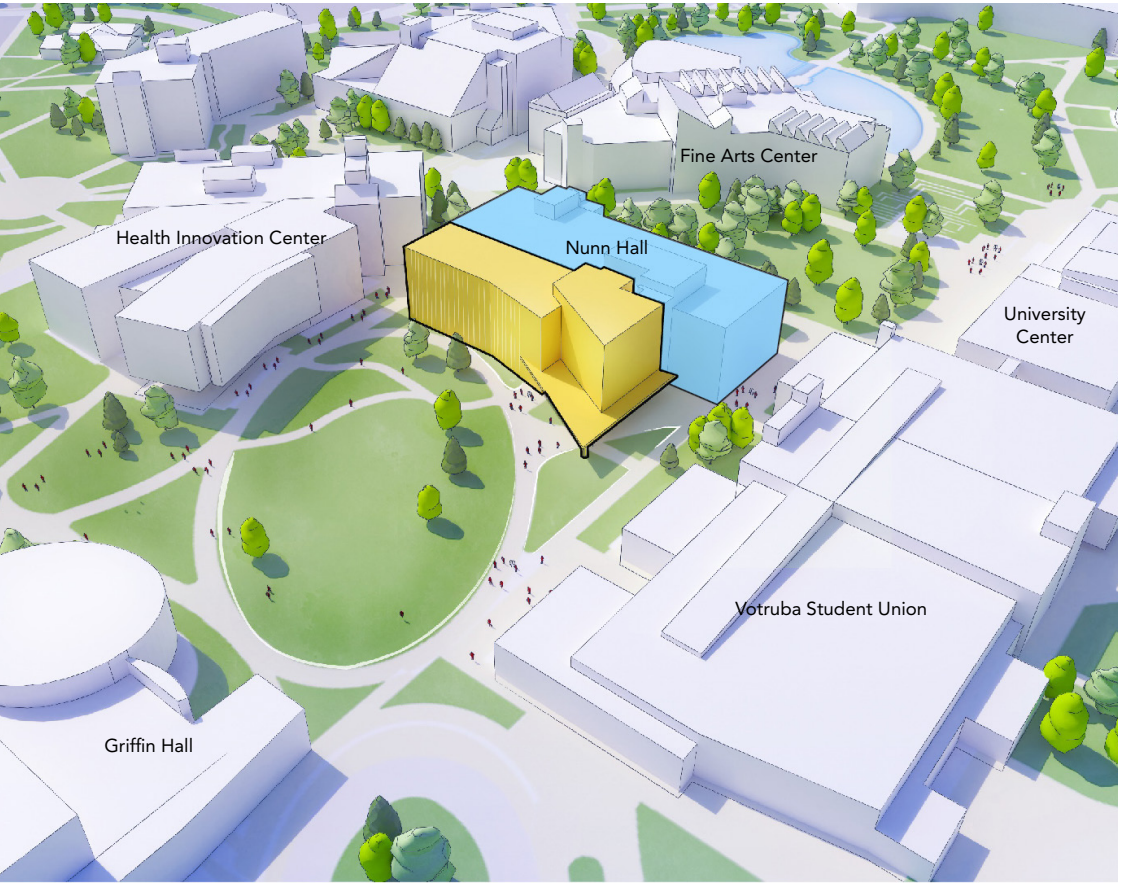
Nunn Hall, the first building constructed in the academic core, is the home of Chase College of Law. Nunn Hall's interior space configuration and design is not well aligned to the curricular and student-engagement needs of a modern law school. Existing space exceeds the needs of Chase, resulting in unassigned space on Nunn Hall's ground floor. In addition, Nunn Hall is located in the center of campus which is not an ideal location for a professional school. The master-planning process identified opportunities for interdisciplinary collaboration with the College of Business and the Department of Political Science, Criminal Justice and Organizational Leadership.

The College of Business, located in the Business Academic Center (BC) on the eastern edge of the academic core, has an unmet space need of 4,000 NASF, primarily for class labs. With the relocation of engineering technology to the expanded Science Center, expansion space within BC becomes available. Similar to Chase's situation in Nunn Hall, the interior space configuration in BC is not well suited to the curricular and student engagement needs of a modern business school.

The strategic decision to collectively address the space-needs for law and business makes relocation of Chase to BC a key enabling project to position the campus core for the future. The proposed BC renovation and expansion is a transformational project to provide partnership space, updated class labs, student teaming/ breakout spaces, and better technology to house these two high-profile professional colleges. A pair

*View of Proposed Business Academic Center Additions*

of building additions will provide an opportunity for program identity while also better defining open space surrounding Loch Norse. The design of the additions will offer an opportunity to juxtapose a current architectural expression against the backdrop of the existing modernist facade. The BC renovation utilizes existing campus space to meet current needs at a cost savings over new construction, thus increasing the viability of funding. Further, the consolidation of law and business is a critical enabling project which will free up space in Nunn Hall for other transformational projects envisioned for the campus core.




*Proposed Nunn Hall Renovation and Addition*

## Engineering Technology and the Arts

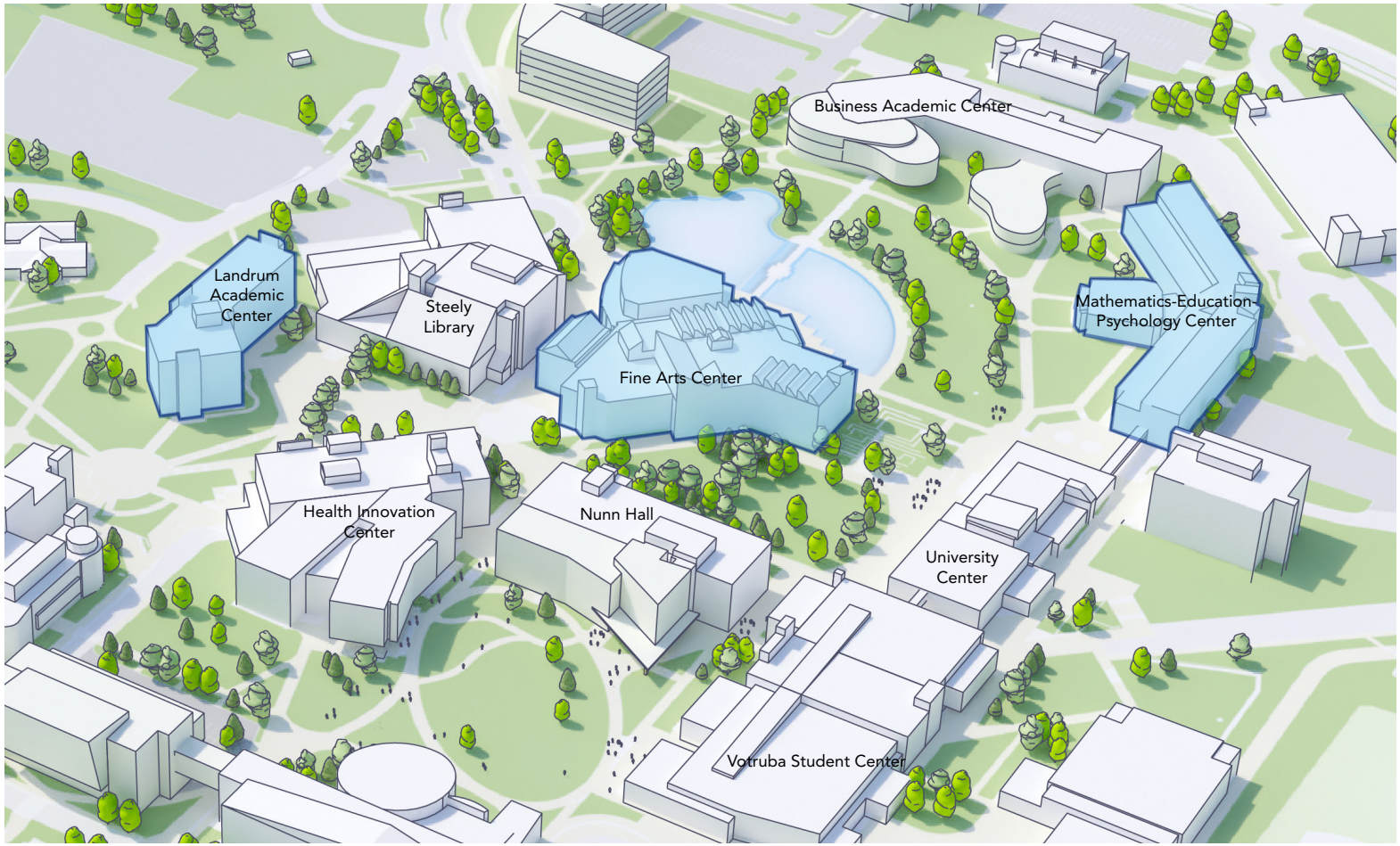
Following the relocation of law to the Business Academic Center, Nunn Hall will be renovated to serve the needs of visual arts as well as other arts and science disciplines such as engineering technology, math, and psychology. Colocation of engineering and arts disciplines would allow shared resources such as "makerspaces" and would enable new opportunities for STEAM collaborations by introducing arts into the traditional STEM disciplines. A significant addition fronting the oval open space to the west provides an opportunity for special program elements and an identifiable presence in the STEM quad. Similar to the HIC addition to Founders Hall, the Nunn addition is an opportunity to leverage existing space through renovation while creating a new architectural expression that embraces the building's brutalist aesthetic. Since Nunn Hall was designed to accommodate most of the university's academic programs, the high floor to floor heights in portions of the building originally used for lab space are suitable for engineering and arts use. The relocation of visual arts from Fine Arts will enable renovation and modernization of the Fine Arts Center.

Engineering technology is currently colocated with the College of Business in BC. The space-needs assessment identified significant space deficits for engineering technology in both class labs and open labs. In anticipation of the renovation of BC for business and law, the Master Plan recommends that space for engineering technology be included in the program for the Science Center addition. Since engineering-related programs are expected to experience significant enrollment growth, the Science Center may be an interim solution with the intent of additional space being provided in the Nunn Hall addition and renovation. In the long term, NKU may consider establishing a College of Engineering. The Master Plan identifies several future academic sites adjacent to the existing STEM quad that could support the space-needs of a dedicated College of Engineering.

The School of the Arts has an identified space deficit of approximately 50,000 NASF across music, theater and dance, and visual arts. The school is highly cross-disciplinary and proximity between disciplines is critical to the school's function. The identified space deficit is

*View of Proposed Nunn Hall Addition*

driven by a need for collaboration space, makerspace and an animation lab for visual arts, support space for student productions (rehearsal space, storage space, production space, dressing rooms), class lab spaces across disciplines, office space , and a recital space for music. The Master Plan recommends relocation of visual arts to a renovated and expanded Nunn Hall, which is proximate to the Fine Arts Center and offers high bay space suitable for art studios, thus allowing theater, dance and music program expansion in a renovated Fine Arts Center. In the long term, development sites east of Loch Norse may offer opportunities for additional performance and rehearsal space should these strategies not fully satisfy the unmet space-needs in the arts.




*Proposed Building Renovations*

## Math, Education, and Humanities

Education is currently located in the Mathematics-Education-Psychology Center (MP). The allocation of space is generally aligned with the space assessment findings. Counseling and social work, previously part of the College of Education but now part of the College of Health and Human Services, would ideally be relocated within MP as they are currently adjacent to education, in space that should be used to support education's mission. The Master Plan recommends a renovation of MP to improve efficiency and adjacencies and to address space-needs. A showpiece classroom of the future with movable walls, technology, student spaces, and flexible seating is envisioned as part of the renovation of the MP.

The humanities are distributed among Landrum Hall, Founders Hall, and MP. Alignment of departments and lab locations is an important consideration with clusters such as sociology, anthropology, and philosophy in Landrum and political science, criminal justice, and organizational leadership in Founders Hall. Math and psychology, currently located in MP, may be more closely aligned with disciplines in the STEM quad. The Master Plan suggests that colocation of math with engineering technology,  visual arts, or interdisciplinary science may strengthen opportunities for collaboration. Psychology may also benefit from adjacencies within the HIC, SC, or future Interdisciplinary Science building. Current space-needs for the humanities are primarily for class labs, offices, assembly, and exhibit space, all of which can be accommodated by leveraging space in existing buildings through incremental renovations. Upon completion of the SC expansion and BC renovation and expansion, a campus-space study is recommended to better understand departmental growth and declines, academic priorities at the time, and regional needs.

# Goal 2:

## Enhance the Student Experience

Student-centered space is a key element that fosters collaboration among students, faculty, and staff. The Master Plan prioritizes improvements to student space to enhance the student experience, support student engagement, and support a sense of belonging among a diverse student population. The scope of the student space extends from the academic core to housing, dining, and the perimeter with improvements to athletics and recreation facilities, pedestrian connectivity, and gateways to campus.

Existing student space is primarily located in the academic core in Steely Library, the Votruba Student Union, and the University Center. There is a shortage of informal student space on campus and the Master Plan recommends that these spaces be incorporated in each major renovation project. Student-centered space should not be limited to larger spaces such as Steely Library; the Master Plan envisions opportunities for incorporating student-centered collaboration and study space throughout academic buildings on campus.


EAST HOUSING VILLAGE
BOOTHE HOUSING VILLAGE
Steely Library
University Center
Votruba Student Union

## Library, Academic Resources, and Student Services

The Master Plan envisions a transformational renovation of Steely Library into an academic knowledge hub serving the entire campus community. In addition to modernizing access to printed material, the renovation is an opportunity to colocate synergistic academic services and create a variety of flexible, technology-rich study spaces. The space assessment confirmed the library has a surplus of space. A reduction of square footage dedicated to the existing library stacks will allow select academic services to relocate to the library.

Further study is needed to determine which programs would be best suited to integrate with the library, but the master-planning process identified the Young Scholars Academy, Learning Plus, Center for Global Engagement and International Affairs, and the Testing Center as potential candidates.

The relocation of academic services currently located in the University Center and the Votruba Student Union to the library will provide opportunities in those buildings to increase space for student services and student organizations, and will provide space needed to create a Center for Student Inclusiveness. This recommendation closely aligns with *Success by Design* and is identified for early phase implementation.

Student organizations currently located on the upper level of the Votruba Student Union may expand across the bridge into the University Center into space currently occupied by the Center for Global Engagement and International Affairs. Space located in the lower level of the University Center that is vacated by Learning Plus and/or Testing may satisfy the need for expansion of key student services.

The Master Plan also identified a space need for the Welcome Center. The existing Welcome Center is adjacent to the parking office and is relatively new. However, the need to host larger groups and being located relatively distant from the academic core present challenges for campus tours. Rather than build new space, the Master Plan recommends the Welcome Center leverage the University Center by hosting large events in Budig Theater and staffing the information desk in the University Center as a welcome desk for events. Proximity to Votruba Student Union activity, the bookstore and dining options will provide an exciting destination for prospective students and parents while allowing immersion in campus culture before and after tours.


*University of Colorado Denver Library*


*Grand Valley State University Library*

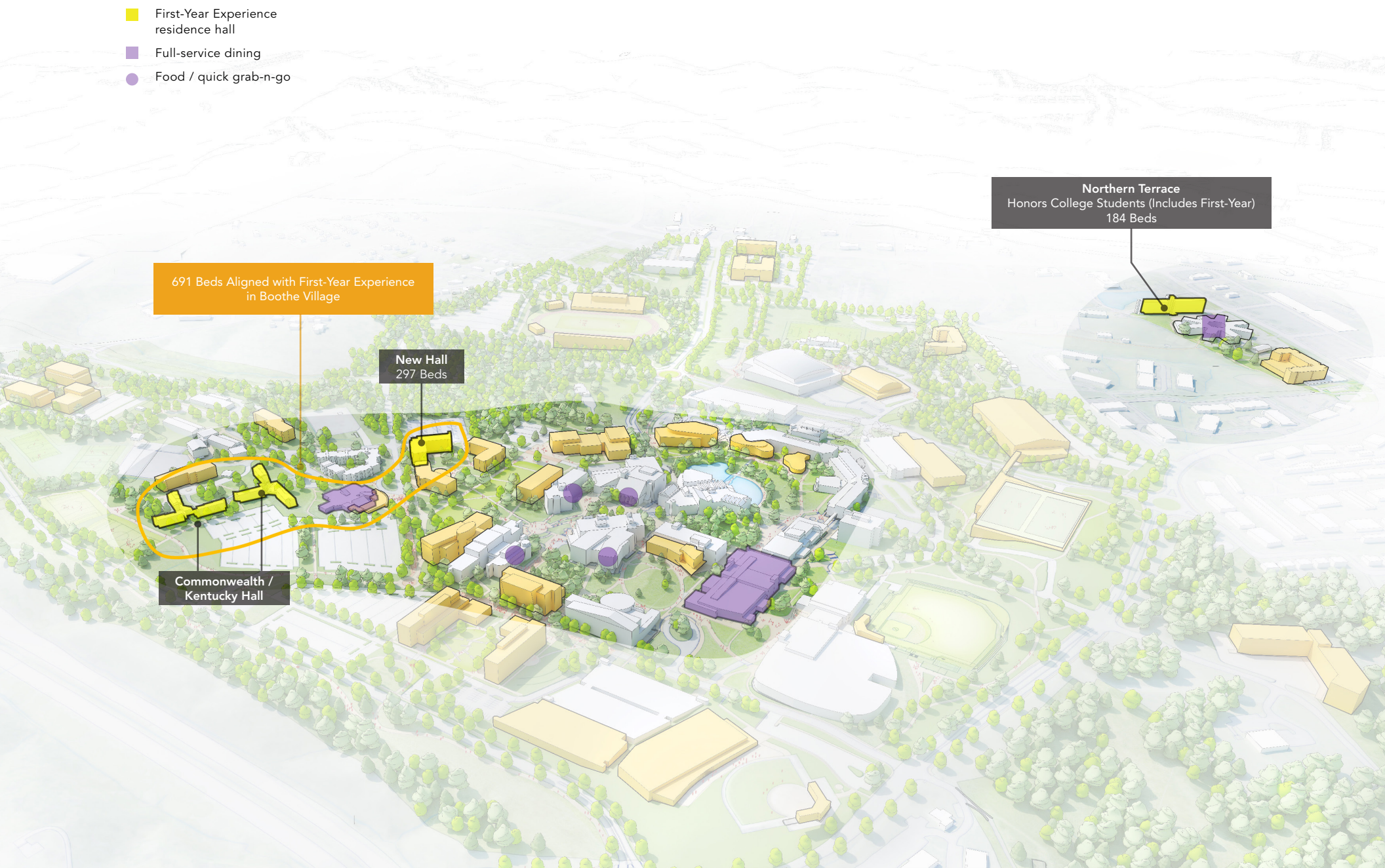
## Housing

Housing and dining are an essential component of the unique student experience at NKU. Enhancing the first-year experience is a priority for the Master Plan and is directly tied to student success. Currently, first-year and upper-division students are distributed throughout all housing types and neighborhoods. The Master Plan recommends age-appropriate traditional and semi-suite housing types for first-year students. These housing types are currently available in the Boothe Residential Village located on the north side of campus with close proximity to student services and dining. The new residence hall in conjunction with the renovation of Commonwealth and Kentucky Halls will provide approximately 691 beds suitable for first-year students. The Master Plan anticipates a potential loss of beds with the renovation of Commonwealth and Kentucky as additional common space amenities will be required to support first-year programming and informal interaction. Improvements to open spaces and pedestrian walks between housing and the campus core with consistent street trees and high-quality hardscape materials will further enhance Boothe Village and the first-year experience.

The East Village, comprised of Callahan Hall and Northern Terrace, is somewhat distant from the academic core, making it less suitable for first-year students. The Master Plan recommends several strategies to increase the desirability of these housing options.

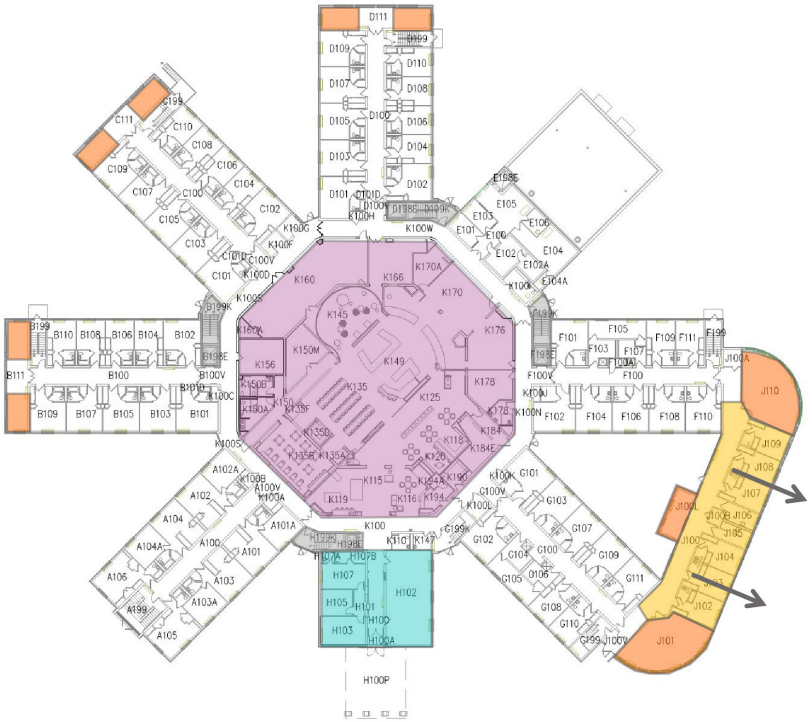
Northern Terrace currently houses some Honors College students, which includes first-year students, but provides programming and room types that support students of all levels. Renovation of Callahan is proposed to provide a value option for upper division students as well as an opportunity for growth in the Honors College. The Callahan renovation is an opportunity to create a larger, more welcoming entry lobby and engaging living, kitchen, and study space on upper floors. The radial organization would support theme-based housing such as living-learning communities, Greek organizations, or other shared identity groups. Individual study rooms could utilize existing space at the ends of three wings.

In the long term, NKU may become a more residential campus. To accommodate future housing demands, the Master Plan reserves additional housing footprints east of Norse Commons to complete a housing quad adjacent to the new residence hall currently under construction. Other opportunities for future housing include public-private partnerships, particularly for campus-edge property, or acquisition of existing privately owned properties. The Master Plan recommends strengthening pedestrian connections between housing neighborhoods and the academic core. The inclusion of additional social and study space when renovating existing residence halls will enhance and build housing communities.

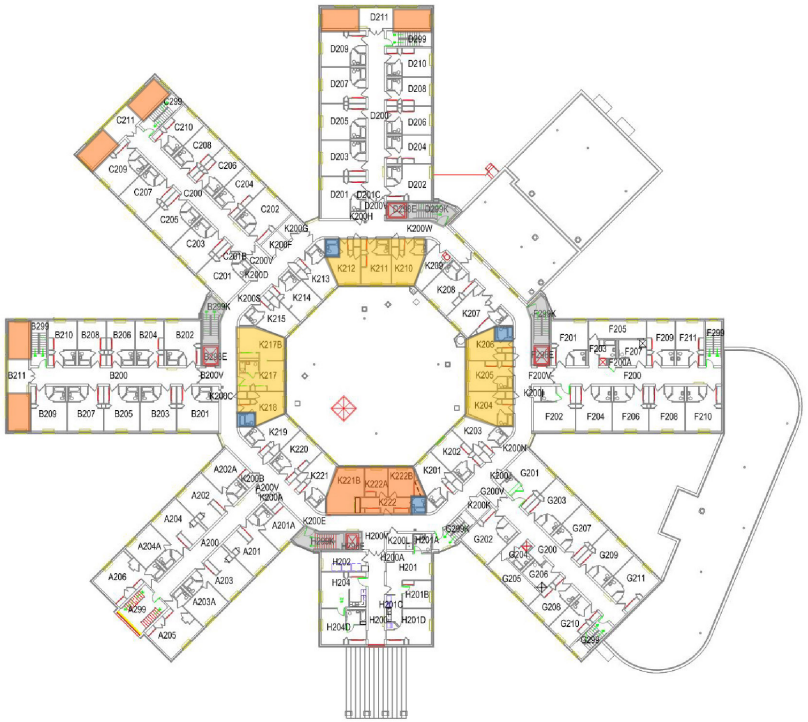

First-Year Experience residence hall
Full-service dining
Food / quick grab-n-go
Northern Terrace
Honors College Students (Includes First-Year)
184 Beds
691 Beds Aligned with First-Year Experience in Boothe Village
New Hall
297 Beds
Commonwealth / Kentucky Hall

## CALLAHAN HALL

- Entry Lobby
- Dining
- Community Kitchen / Living
- Study Space / Classroom
- Public Bathroom



*Ground Floor Plan*



*Upper Level Plan*

# Dining

As part of the Master Plan, Brailsford & Dunlavey completed a Dining Master Plan to assess the existing conditions of on-campus dining venues in consideration of future needs. Given that housing and dining facilities are interrelated quality-of-life facilities, the project team carefully considered the recommendations of the campus Master Plan, and developed dining recommendations that support the Master Plan and create synergies.

## EXISTING CONDITIONS

The existing dining portfolio consists of two all-you-care-to-eat (AYCTE) facilities, and 14 retail locations throughout campus. Ten of the retail locations are located in the Votruba Student Union and four are remotely located throughout campus in various academic buildings. B&D categorized NKU's campus into six zones to better evaluate locational demand. Those zones are identified in the map to the right.


*Dining Zones*


*Existing Branded Dining Venues*

## KEY FINDINGS

The project team examined existing dining conditions including venue and capacity needs, meal-plan participation and offerings, and general satisfaction.

The key findings of the dining market analysis:

- Callahan Bistro is underutilized during breakfast and lunch; however, food service is necessary for the residents of Northern Terrace and Callahan Hall.
- Distribution of retail is more proximate in the northern portion of campus.
- NKU students are brand centric.
- Students are satisfied with the quality of service offered through the dining program; however, they are dissatisfied with affordability.
- Many students are eating / preparing meals in their residences, which limits community building.
- There is an opportunity to increase nutritional awareness.
- Demand exists for increased dining beyond the customers served in the fall of 2019. Survey-projected demand exceeds the existing transaction amount in every zone for at least one meal period.

## RECOMMENDATIONS

Dining service is an important component supporting a vibrant residential community and collaboration on campus. The 2019 Dining Survey found that demand exists for increased dining beyond the customers served in fall of 2019. In the long term, opportunities to expand dining options will continue as NKU becomes an increasingly residential campus. The Master Plan suggests implementing the following recommendations included in the Dining Master Plan:

1. Reduce daytime operations and offerings at Callahan Bistro. Replace AYCTE breakfast and lunch options with a la carte and/or grab-and-go options.
2. Add a retail dining location in Zones 3 or 4 (either in the Mathematics-Education-Psychology Center or in the Business Academic Center).
3. Expand the hours of operation in the Votruba Student Union to match unmet demand for dinner.
4. Alter the service style in Zone 2 (Einstein's, Au Bon Pain, Darwin's Café) to offer more seated options for dinner.
5. Alter the breakfast offerings in Zone 1 to align with demand preferences as well as alleviate the reduced operations in Callahan Bistro.

In summation, the Dining Master Plan highlights opportunities to enhance the student experience through a dining program better aligned with the preferences of the campus population. The Dining Master Plan also recommends aligning the dining program with future building plans, particularly any housing plans that impact the number of students living on campus. The complete dining report, including survey results, a detailed market analysis, and final recommendations can be found in the Appendix. The market analysis encompasses a demographic analysis, an existing conditions assessment, peer benchmarking, and a demand analysis.

*Votruba Student Union Food Court*

# Goal 3:
## Define the Campus Perimeter

The Master Plan envisions enhanced perimeter connectivity with a campus greenway that unifies athletics, recreation, open space, woodlands, and parking areas. The greenway would leverage existing pedestrian infrastructure and refine existing parking lots to include new pedestrian connections and a consistent planting palette. Recommendations for perimeter gateways, branding, landscape, and wayfinding improvements are intended to create a more cohesive and welcoming campus. The plan also seeks to establish campus-edge opportunities for industry partnerships, economic development, and innovation to serve the university as well as the broader northern Kentucky region.

### Gateways and Branding

Since the previous Master Plan, significant investments have been made to improve vehicular circulation through and around campus. These improvements are an opportunity to further enhance NKU's outward-facing presence at key entry points to campus with iconic features promoting a strong sense of arrival, the unique identity of NKU, and connection to the broader Highland Heights community. Iconic gateway elements take many forms, ranging from art and sculpture, light installations, or a more traditional university gateway sign. Signage elements should highlight what makes NKU unique, reinforce the NKU brand through creative use of school colors and logos, and promote engagement with the campus and external community. Light poles, banners, and other landscape elements provide additional opportunities to reinforce the NKU brand and create a sense of place.


EAST HOUSING VILLAGE
BOOTHE HOUSING VILLAGE
Steely Library
University Center
Votruba Student Union
Housing
Student Life
Academic Core
Athletics and Recreation
Partnership Opportunities

Consistent, high-quality signage also contributes to the creation of a welcoming campus by making campus navigation easy and clear for both pedestrian and vehicular circulation. The roundabout at Johns Hill Road and University Drive features traditional campus entry signage. Opportunities for iconic entry features exist at three key vehicular access points to campus, all roundabouts: Norse Boulevard and Johns Hill Road, Norse Boulevard and University Drive, and Nunn Drive and University Drive. The roundabout at Nunn and University Drive is undersized and the Master Plan recommends the diameter be enlarged to match the adjacent circles to improve safety.

Secondary threshold signage for vehicles and pedestrians is recommended along key intersections of Norse Boulevard and should be coordinated with enhanced pedestrian safety features such as raised crosswalks. Recommended entry elements include enhanced landscape plantings, lighting, signage, art, and pedestrian amenities such as seat walls. Architecture and other campus infrastructure such as additional pedestrian bridges can also serve as gateway elements and may be particularly beneficial in connecting the arena to the University Drive Parking Garage. The proposed Town Center is a unique opportunity to express the NKU brand through architecture and landscape treatment along the public U.S. 27 edge.

1

*University of Notre Dame*

2

*Temple University*

3

*Vanderbilt University*

## PROPOSED GATEWAYS

# Athletics and Recreation

The Master Plan envisions a campus perimeter with a cohesive recreation and athletics experience that meets near-term needs while reserving footprints for long-term facilities. The rolling hills common to the region present challenges in siting large athletics facilities; costs for site preparation, displacement of parking, access and proximity to other athletics facilities are key considerations.

## ATHLETICS

In the near term, the plan recommends improvements to the existing Bill Aker Baseball Complex to meet Horizon League Championship hosting requirements as outlined in a 2016 study. Improvements include a grandstand with permanent seating, lighting, and an updated press box. Similar improvements to the Frank Ignatius Grein Softball Field are recommended to meet Horizon League Championship hosting requirements and improve the spectator experience. In addition to recent field improvements, future softball projects may include lighting, permanent seating, a concession stand and public restrooms. The Master Plan also recommends construction of an indoor tennis facility on the site of the existing tennis courts adjacent to the softball field to address structural issues with the existing courts and enable NKU to practice and host matches during inclement weather. Identified improvements for baseball, softball, and tennis could be implemented when funding is available and are not contingent upon enabling projects.

The Master Plan also identifies a site for near-term construction of a basketball practice facility adjacent to the BB&T Arena. This facility of about 22,000 net square feet would include court space, locker rooms, strength and conditioning space, space for sports medicine, and office space for athletics staff. As an addition to the arena, the practice facility will leverage existing athletics space and colocate athletic program spaces for increased efficiency.

In the long term, the plan reserves footprints for larger facilities including an indoor multi-purpose center and a track and field stadium. The proposed locations contribute to the long-term vision of a cohesive campus perimeter and enhanced connectivity between athletics and recreation facilities, the campus core, and residential communities.

## RECREATION

The Master Plan identifies a deficit of outdoor recreation facilities. The proposed demolition of Woodcrest Apartments provides an opportunity to construct two multi-use fields adjacent to existing multi-use fields to meet the near-term needs. In the long term, potential additional need for recreation space could be met with the construction of multi-use fields on top of the proposed structured parking east of the Bill Aker Baseball Complex. Built into the hillside and serving as a connection to the long-term multi-purpose center, the proposed parking facility will also be an opportunity to enhance connectivity across recreation and athletics facilities. In the near-term, construction of the Basketball Practice Facility will allow for the reallocation of Albright Health Center space vacated by athletics to kinesiology.

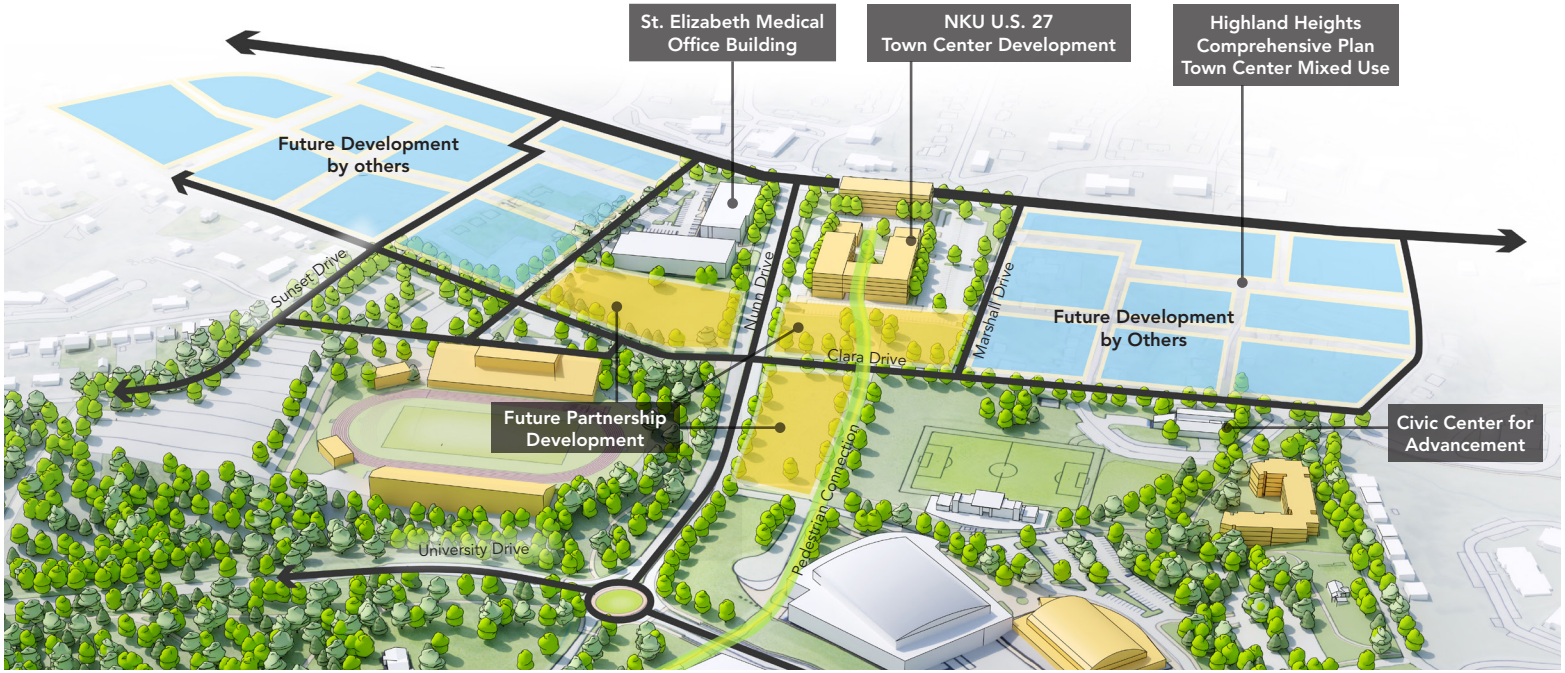
## PROPOSED ATHLETICS PROJECTS

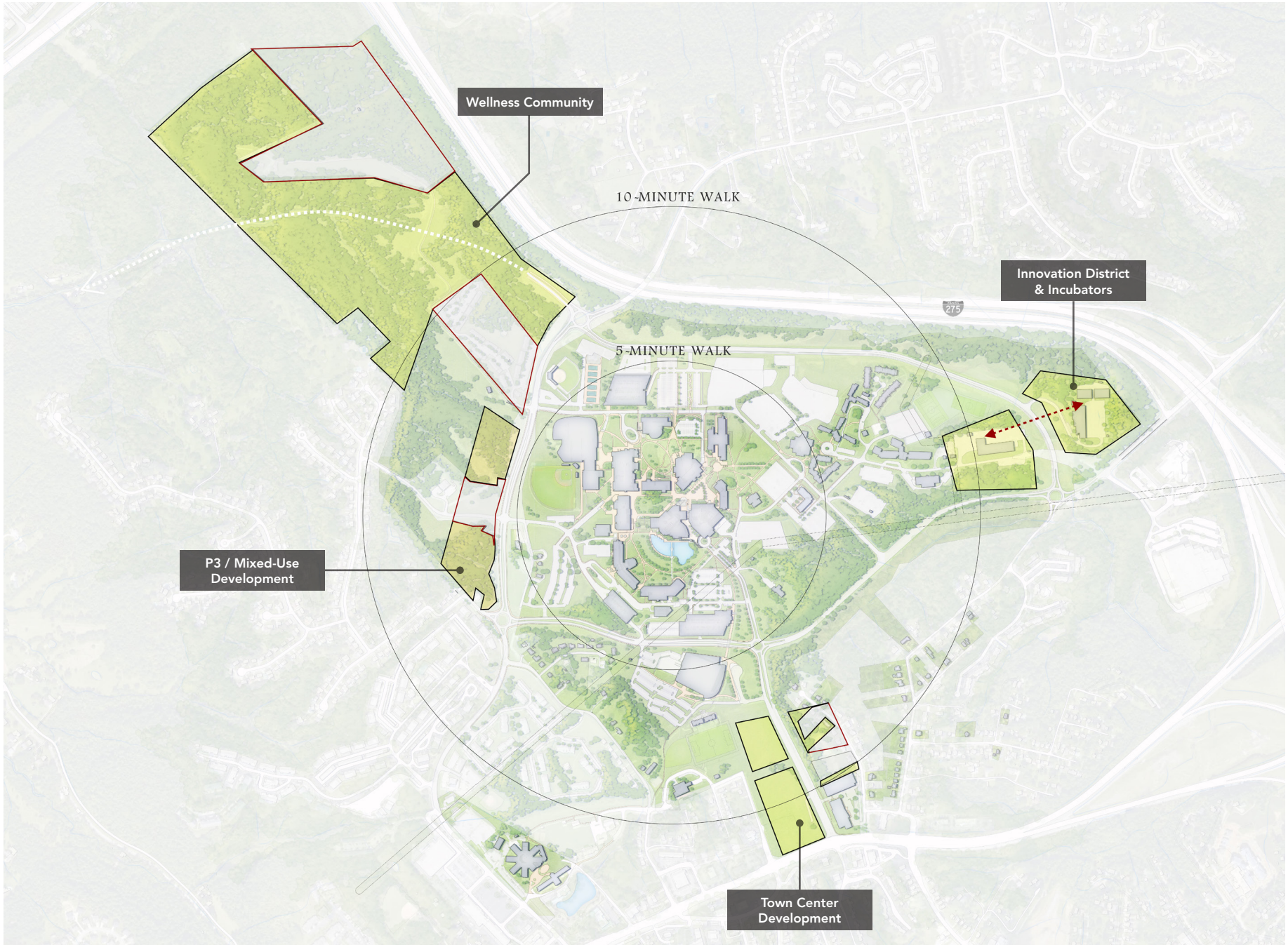
- Priority near-term projects
- Mid-term projects
- Long-term projects

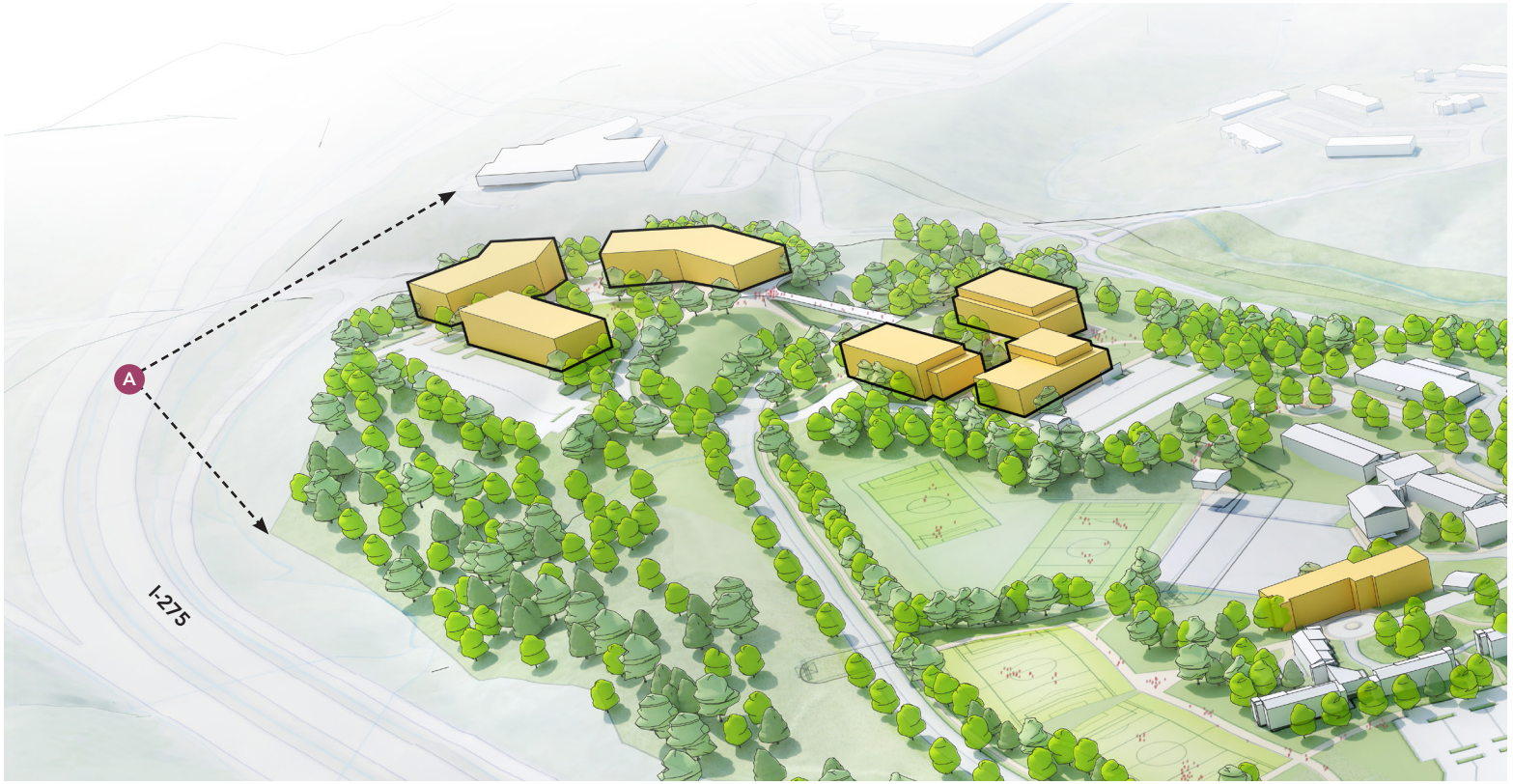
## Partnership Opportunities

The Master Plan identifies opportunities to leverage NKU's land resources to engage with the local community, stimulate economic development, and establish the university as an innovation hub in the region. In the near term, the proposed town center development at Nunn Drive and U.S. 27 is an opportunity to establish a new front door to campus through a public-private partnership featuring a mixture of retail, hospitality, and housing. Enhanced pedestrian connectivity to the academic core will further integrate the campus and reinforce the outer greenway envisioned around the perimeter of campus. The development will significantly alter Nunn Drive, adding building frontages and establishing a retail street. In the long term, there may be opportunities to expand the town center to create a larger urban mixed-use environment engaging both the Highland Heights community and the university.

The Master Plan recommends the renovation of the Civic Center as an Alumni Center to benefit both current students and alumni by providing opportunities for greater interaction and programming. With a focus on external engagement, the proposed utilization of the Civic Center is complementary to a longer-term vision for the town center and future development. Furthermore, the close proximity to the BB&T Arena, the soccer complex and a potential stadium present long-term opportunities for campus events.



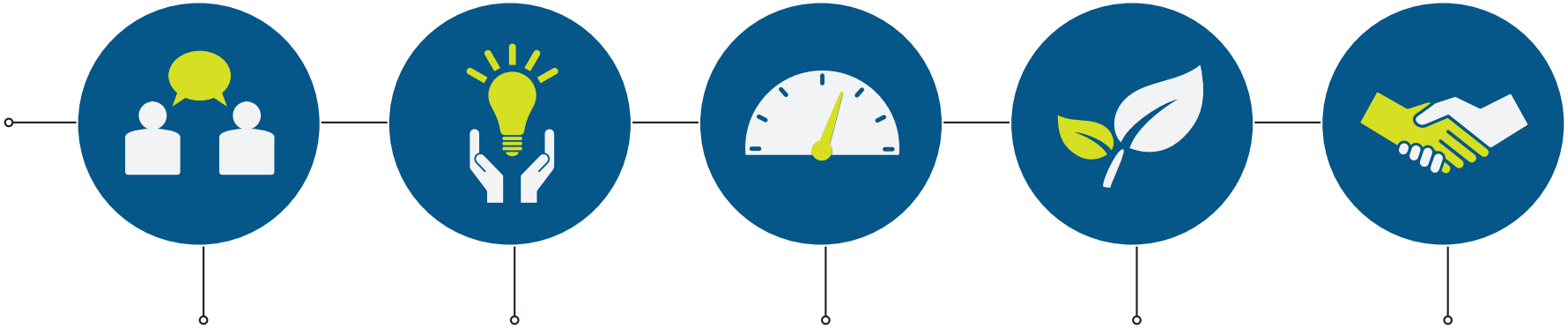

Wellness Community
10-MINUTE WALK
5-MINUTE WALK
Innovation District & Incubators
P3 / Mixed-Use Development
Town Center Development


A *New Building on Campbell Site from I-275*

The footprint for an innovation business partnership is proposed in the northern portion of campus adjacent to Campbell Hall. With high visibility from I-275, this near-term opportunity may serve to incubate, accelerate and grow private sector investment and interest as well as attract potential mature partner companies to NKU. Over the 15-year time frame of the Master Plan, additional innovation and partnership buildings are proposed on this prominent site to establish a regional innovation hub providing opportunities for students, faculty, and regional partners.

## The Innovation Pipeline



**DISCOVER**
With teaching and research, universities foster the creation of new knowledge.

**INCUBATE**
An idea with broad potential impact is explored.

**ACCELERATE**
Completion of a focused program builds promising ideas into companies.

**GROW**
Early stage companies scale their vision, adding new employees and expanding impact.

**PARTNER**
Mature companies establish mutually beneficial relationships with research universities.


GRIFFIN
HALL

# Campus Master Plan

The Master Plan outlines bold goals and a long-term vision for the physical campus that is grounded in a realistic near-term implementation plan to meet the challenges of today and prepare for the challenges of tomorrow.

# Proposed Projects

Through the process of scenario planning and community involvement, the master-planning process synthesized a preferred scenario for future campus growth. The Master Plan reflects the goals and strategies identified for both the academic core and the campus perimeter. It establishes a comprehensive vision for physical development over the next 15 years and beyond. The vision aligns with the university's strategic framework and reflects extensive participation from the campus community and regional partners throughout the planning process. Proposed new construction, renovation, and demolition aligns with improvements to campus infrastructure systems and is phased to inform implementation over the Master Plan's 15-year horizon. Proposed projects in the near term are identified for completion within the next five years while mid-term projects are identified for completion within the 5-to-15-year period. Long-term footprints are identified for potential development beyond the 15-year planning horizon.

The following transformative projects are identified to provide needed academic growth in strategic areas while modernizing key buildings for the current educational environment.

- Herrmann Science Center Addition
- Renovation of the Business Academic Center with additions for law and business
- Renovation of Nunn Hall with an addition for engineering technology and visual art
- Renewal of Landrum, the Fine Arts Center, and the Mathematics-Education-Psychology Building
- Renovation of Steely Library as an academic knowledge hub
- A new Interdisciplinary Science Building

# Priority Projects

- New Construction
- Major Programmatic Renovation

## ACADEMIC PROJECTS

**A.** Herrmann Science Center Addition

**B.** Business Academic Center Renovation/Addition

**C.** Nunn Renovation/Addition

**D.** Interdisciplinary Science Building

**E.** Major Academic Renovation

## NKU STUDENT EXPERIENCE

**A.** Library Knowledge Hub

**B.** Student-Centered Space

**C.** Alumni Center

## HOUSING PROJECTS

**A.** First-Year Experience

**B.** Callahan Renovation

## ATHLETICS AND RECREATION PROJECTS

**A.** Recreation Fields

**B.** Baseball Stadium Improvements

**C.** Tennis and Softball Improvements

**D.** Basketball Practice Facility

## LANDSCAPE PROJECTS

**A.** Kenton Walk

**B.** Pedestrian Connections

**C.** Campus Gateway Improvements

## PARTNERSHIP PROJECTS

**A.** Town Center

**B.** Innovation Partnerships

# Campus Systems Overview

## Sustainability

In 2007, NKU became a signatory of the American College and University Presidents' Climate Commitment (now known as the Second Nature Climate Leadership Commitment) and as a result has committed to net zero carbon emissions by 2050. NKU has also joined the Cincinnati 2030 District which aims to reduce building energy use, water consumption, and transportation emissions by 50 percent by 2030. The Master Plan enables the university to meet the ambitious goals within these commitments by recommending improvements to the campus environment that encourage alternative transportation, energy efficient construction, environmentally sensitive stormwater management, and energy use reductions.

The Master Plan provides a physical vision for future campus buildings and landscapes that will advance progress on meeting the university's sustainability goals. NKU's sustainability strategy aims to achieve sustainability goals through leading by example in the region, collaborating with partners, and empowering the campus to create a culture of sustainability. The plan's vision for campus partnerships is also an opportunity to advance outreach and collaboration with the regional community.


*Community Garden Clean-up, Earth Week 2017*

NKU has completed five comprehensive inventories of the university's greenhouse gas emissions and completed construction on LEED-certified buildings: Griffin Hall, Albright Health Center, and the Health Innovation Center. The Albright Health Center expansion achieved LEED Gold certification and features 80 geothermal wells. NKU requires that all new buildings achieve LEED certification.

Master Plan recommendations for campus landscapes and open space, transportation and mobility, and utilities will progress NKU's sustainability initiatives and commitment to net zero carbon emissions by 2050.

## Landscape and Open Space

Open space is the fabric that connects the campus and directly influences the quality of the student experience. A primary focus of the Master Plan is extending the desirable qualities of the campus core to other parts of campus including a richer use of hardscape materials, landscape amenities, a diverse planting palette, and environmentally sensitive stormwater management techniques. A variety of open spaces ranging from woodlands to formal open spaces support natural systems on campus which contribute to improvements such as stormwater conveyance and greenhouse gas mitigation. Preserving and enhancing open space and natural systems supports the university's sustainability and Climate Action Plan goals.


*Griffin Hall Green Roof*

Landscape is also an opportunity to promote connectivity. Campus-wide landscapes can be opportunities for engaging the campus community through academic research and outdoor learning environments. Each building project offers an opportunity to enhance the campus open space network, improve environmental management, and support sustainability initiatives.

The Master Plan will create a campus that strengthens NKU's identity, supports accessibility, and enhances sustainability through the following strategies:

- Maintain a campus core that minimizes vehicular and pedestrian conflicts
- Create meaningful gathering spaces throughout campus
- Enhance existing open spaces by increasing tree canopy and suggesting locations where lawn areas can be converted to indigenous and adapted plants
- Enhance campus arrival points and perimeter landscaping
- Create bicycle and pedestrian paths that connect the surrounding community to the campus and welcome visitors into the campus core

*Grinnell College, Grinnell, Iowa*

## Hardscapes and Furniture

A network of pathways, open spaces, and plazas stitch various precincts of the campus together, providing opportunities for informal interaction within the campus community. The Master Plan recommends introducing a consistent pattern and color of concrete pavers for areas inside and outside the campus core to continue the design of recent improvements to the Central Plaza. Permeable pavers may be considered in some areas to reduce the volume of stormwater runoff from hardscaped areas. Additional site furniture and fixtures such as benches, trash receptacles, tables and chairs, hammock stands, and light poles should be considered to extend the campus standard to areas outside the campus core. Site furniture is an opportunity to reinforce the NKU brand by utilizing elements such as campus colors and banners for light poles. The Master Plan recommends utilizing a variety of movable seating to provide additional flexibility and encourage the creative utilization of campus open spaces. Amenities such as Wi-Fi, power outlets, and seating of various styles and heights, and slate writing surfaces also encourage a dynamic outdoor environment for students and faculty to collaborate.

## Planted Areas and Grounds

The Master Plan supports continuing the prioritization and progress to "green" the campus that has been achieved since the previous master plan. The Master Plan recommends that the landscape design consider the value of investment in plantings that will thrive on campus in the long term such as heritage trees. Increasing the number of shade trees adjacent to buildings, pathways, and parking areas will increase comfort for pedestrians and reduce the urban heat island effect. Kenton Drive, University Drive, Norse Boulevard, and Johns Hill Road are opportunities for increased street tree plantings which can enhance the experience for visitors and calm traffic for increased pedestrian safety. The health of existing trees should be monitored to ensure the many benefits of mature trees including carbon sequestration and shading. Campus open spaces should utilize a diverse palette of plant species including native plants, particularly on the campus perimeter. Opportunities to convert managed grass areas to meadows should be considered where appropriate to reduce maintenance costs and energy use. Building foundations, parking and service areas are opportunities to replace grass with groundcovers, shrubs, understory trees and canopy trees to create visual interest, screen and soften building edges, and provide wildlife habitats.

*Health Innovation Center*

*Howard Community College, Columbia, Maryland*

*Johns Hopkins University, Baltimore, Maryland*

## Stormwater

Stormwater management through environmental site design (ESD) is an opportunity to incorporate stormwater management with amenities that enhance the campus experience, improve ecological balance, and meet NKU's sustainability goals. Many existing grass swales could be transformed into a network of bioswales and rain gardens that incorporate a diverse palette of native vegetation, particularly on the perimeter of campus. These stormwater management devices increase rainwater capture on campus, provide visual interest, and create habitats for wildlife. Depressions adjacent to large impervious surfaces such as parking lots are also opportunities for raingardens. In residential neighborhoods, opportunities to disconnect downspouts and install rain gardens to reduce the water entering stormwater pipes should be considered.

## Pedestrian and Bike-oriented Streets

Campus wide, there are opportunities to enhance streets with bicycle and pedestrian infrastructure. Where appropriate, the Master Plan recommends incorporating bike lanes on campus streets. Separated or buffered bicycle lanes are preferred. Marked bicycle streets, which may include bicycle route signs, and shared lane markings can be included on secondary streets. Traffic-calming treatments, including include high-visibility crosswalk markings, flashing beacon warning signs, landscape plantings, curb extensions, and raised crosswalks should be implemented in critical conflict areas to reduce vehicle speeds and minimize pedestrian exposure. The proposed greenway looping the campus perimeter could utilize shared-use campus pathways or trails adjacent to existing roads where applicable.

## Circulation & Parking

The Master Plan recommends a continued emphasis on use of perimeter campus roads as the primary means for vehicular travel to campus destinations. Enlargement of the traffic circle at the intersection of University Drive and Louie B. Nunn Drive would improve perimeter circulation within the campus. The future extension of Norse Boulevard south of Johns Hill Road connecting to the AA Highway would improve connectivity to the campus from the surrounding region.

Keeping vehicular circulation and parking at the campus perimeter minimizes vehicular and pedestrian conflicts in the campus core. To further enhance the car-free core, the Master Plan recommends conversion of the central section of Kenton Drive to a pedestrian walk with vehicular access limited to emergency and support services. Other opportunities exist on campus to clarify circulation, service areas, and parking areas to enhance the pedestrian environment.

Proposed near-term projects are sited to minimize loss of surface parking. To accommodate potential long-term increases in parking demand resulting from new development, the Master Plan identifies structured parking additions to the University Drive Garage and the Kenton Drive Garage. These expansions will provide additional parking proximate to the academic core. In addition to expanding existing structures, the long-term vision includes a new parking deck on Lot T south of the University Drive Garage. This parking structure could provide an upper deck, multi-purpose recreation field with a pedestrian bridge providing a connection across University Drive to future athletics facilities.


*University of Scranton, Scranton, Pennsylvania*

As the campus perimeter matures, surface parking lots will be consolidated to accommodate the need for new development. Transportation demand management techniques such as enhancing campus shuttle routes, bicycle infrastructure, carshare partnerships, and parking policies can address long-term parking demand as the campus grows.

# Utility Infrastructure

To successfully implement the vision of this master plan, it is critical to address the opportunities and limitations of NKU's existing utility systems. Heating, cooling, electrical, and water systems throughout campus will be subject to dramatic changes as the campus Master Plan implementation unfolds. Master Plan goals provide incentive for evaluating these existing systems, their ability to accommodate the recommendations of this Master Plan, and their current compatibility with other long-term university initiatives. The Master Plan Appendix includes a central plant analysis which provides additional detail on infrastructure.

## SUSTAINABILITY GOALS

In addition to meeting the operational needs of the campus, NKU's utility systems will also play a vital role in achieving NKU's sustainability commitments. In 2007, NKU committed to achieving carbon neutrality by 2050, and has since joined the Cincinnati 2030 District, with intermittent sustainability targets for the year 2030. NKU has made great strides towards achieving these goals, and it was therefore a requirement that planned changes to NKU's utility infrastructure take these goals into consideration.

## CENTRAL POWER PLANT

At the heart of NKU's existing heating and cooling infrastructure is the campus Power Plant. This 20,000 square-foot facility houses the chillers and boilers that generate chilled water and steam for use across campus. These resources are distributed throughout campus via piping systems primarily located in underground tunnels.

As it currently stands, the central chilled water plant has adequate existing capacity to meet the peak campus chilled water demand, with redundancy, when all chillers are in use. To extend the useful life of this critical infrastructure, it is recommended that all chillers receive routine maintenance and operational changes. With implementation of these changes, the university can plan to add load to the chilled water system.

These changes include renewals and repairs to existing chiller components, as well as a reduction in chilled water flow rates across campus. Since existing chilled water distribution piping serving the campus is nearing capacity, a reduction of flow rates is critical to the continued use of the central chiller plant. This goal can be achieved during planned building renovations and additions through implementation of targeted building level HVAC improvements designed to increase the differential in chilled water supply and return temperatures. These HVAC renovations will increase chilled water plant capacity and significantly improve the overall efficiency of the affected buildings.

Additionally, while the central boiler plant has sufficient capacity to expand the steam system as the university grows, this system is highly inefficient and poses an obstacle to the university achieving its carbon neutrality goals. Based on these considerations, it is recommended that NKU phase out the centralized steam system over the duration of this master plan, and transition to decentralized heating sources as renovations, additions, and new construction projects take place over the next fifteen years. Not only will this significantly improve the

energy efficiency of heating systems throughout campus, but it will also significantly reduce campus-related carbon emissions.

Further, in pursuit of NKU's sustainability goals, it is recommended that geothermal heat pump systems be evaluated with each project identified in this master plan. Similar to the 2014 recreation center expansion of the Albright Health Center, this approach could partially, or fully, disconnect buildings from the central chilled water and steam systems, in favor of a highly efficient decentralized approach. While it was determined that a centralized geothermal system would not be feasible for serving all of NKU's campus, an ad-hoc approach allows NKU to make significant progress towards its carbon neutrality goals in a cost-effective manner.

It may be noted that disconnecting buildings from the central steam plant could result in increased maintenance costs. These costs, however, should be more than offset by utility cost savings. Therefore, it is recommended that utility and maintenance costs be paid from the same operational funds.

## ELECTRICAL INFRASTRUCTURE

Four 12,470-volt primary electrical loops serve a majority of NKU's campus. Buildings not in the central portion of campus such as the BB&T Arena and the East Residential Village are served from independent secondary Duke Energy feeds.

Primary electrical loops A and B serve most of the central academic portion of campus. Loop A has over 62 percent capacity available while loop B has close to 70 percent capacity available. Loop C, serving the central plant, is the most heavily loaded of the four campus feeds, and has only 35 percent capacity available. Finally, Loop D serves most of the on-campus student housing and has over 80 percent capacity available. In summary, the four 12,470-volt loops have more than adequate capacity to meet campus needs as the Master Plan is implemented.

The major recommendation associated with the electrical infrastructure is to extend Loops A and B from the existing underground infrastructure, located north of the Herrmann Science Center, to the area south of the Kenton Drive Garage. This would allow for new construction along Kenton Drive, as well as additional redundancy.

## COMMUNICATION INFRASTRUCTURE

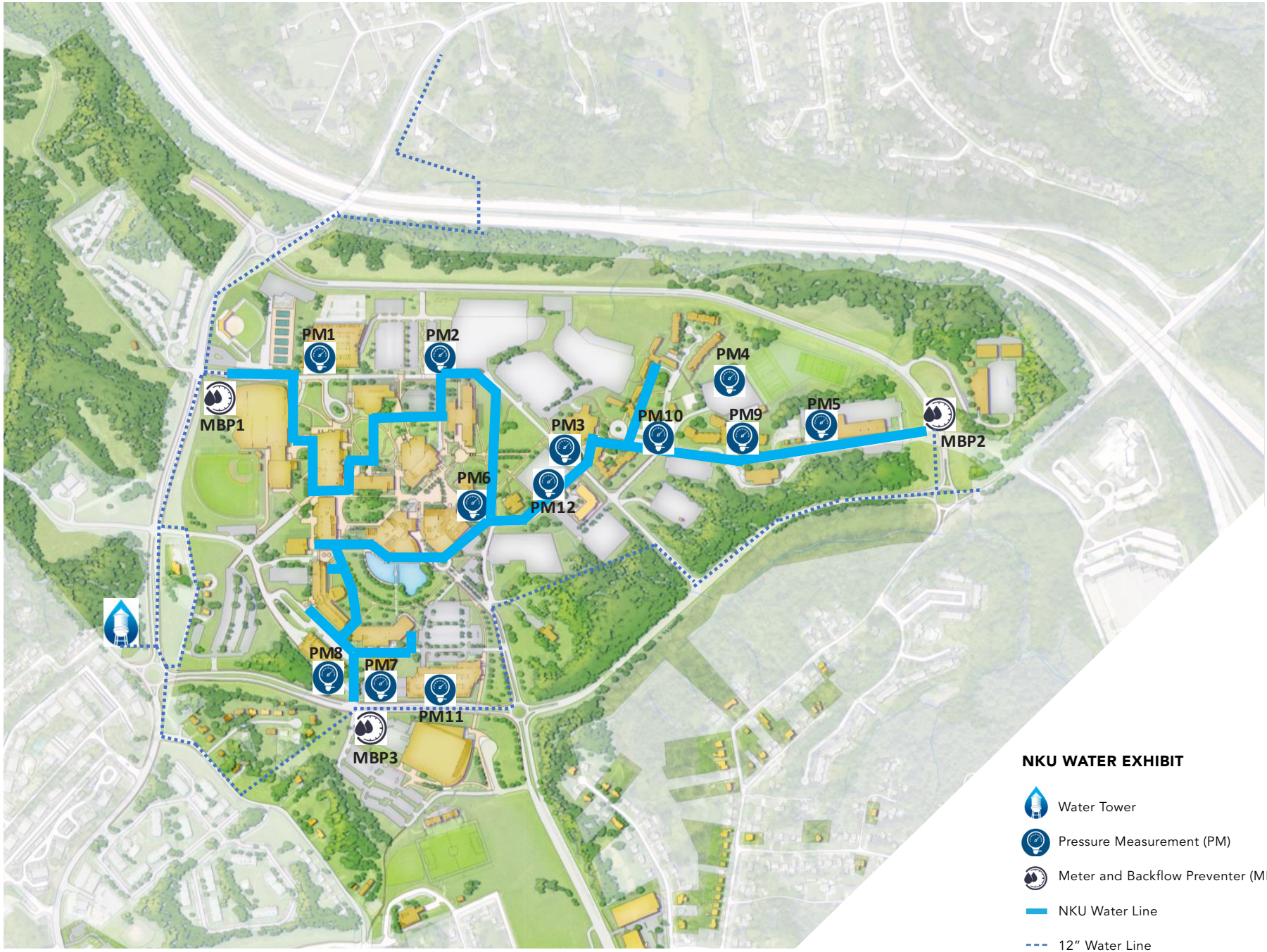
A robust infrastructure of fiber, copper telecommunications and cable TV cabling located throughout campus is available to serve the needs of campus as the master plan is implemented.

Currently, there are four major network connection point locations on campus. The first is located in the Lucas Administrative Center. This connection point has the Cincinnati Bell SIP Trunk and the Century Link ISP lines and is the termination point for Kentucky Wired. The second connection point is located in the Business Academic Center. This connection point has the Windstream ISP line and contains most of the campus firewalls and core network services. The third network connection point area, located in the Votruba Student Union, has the Spectrum ISP line as well as additional firewalls and DNS services. The fourth and final connection point is located in Nunn Hall. This is the main area for the campus Cincinnati Bell Fiber service. This location is the point of origination for all campus copper phone trunk lines.

All existing cabling is located in the existing tunnel system or in underground duct banks and could easily be extended to new building locations.

## WATER

The Northern Kentucky Water District provides the public water supply to the NKU campus. The water supply system includes a 12-inch diameter line running along Johns Hill Drive and sections of University Drive. A 500,000-gallon elevated storage tank ties to the line in the vicinity of the Johns Hill Road and University Drive intersection. Water pressure in the Water District's line is boosted by pumps in its distribution system. The internal campus distribution system, owned by the university, supplies water to campus buildings as well as campus fire hydrants. The system is fed from three points: Kenton Drive off Johns Hill Road, University Drive near the Welcome Center Garage, and Campbell Drive near the Maintenance Building. The Water District performed flow testing at campus service connections and based on their model, determined the available flow at 30 psi to be 3,000 gpm at Kenton, 4,000 gpm at University Drive, and 3,600 gpm at Campbell. The rated supply at these locations should be adequate for the domestic needs of planned future campus development.


PM1
PM2
PM4
MBP1
PM10
PM9
PM5
PM3
MBP2
PM6
PM12
PM8
PM7
PM11
MBP3
NKU WATER EXHIBIT
Water Tower
Pressure Measurement (PM)
Meter and Backflow Preventer (MBP)
NKU Water Line
12" Water Line

Flow testing performed on the campus hydrants in January of 2021 indicate available capacity well below the meter supply values calculated by the Water District, indicating likely limitations within the campus distribution system. There is a backflow preventer at each master meter location resulting in a 10 psi drop as the water enters the campus system; however, static pressure within the university is between 65 and 85 psi which is generally acceptable for a distribution system. Hydrant flow tests indicate the maximum supply in the central campus area at 20 psi to be 1200-1500 gpm. This flow is low for fire protection; thus, any future development should include improvements to the distribution system piping to ensure there is sufficient fire protection.

To prioritize funding for improvements to the distribution system, the university is encouraged to develop a water system model to validate current flows, to identify constriction points in the existing system, and to prioritize improvements. Ideally the model would have the ability for integration with Northern Kentucky Water District's model to accurately depict both the campus internal system as well as the dynamics of the supply at the meters. At the time of the Master Plan, detailed sizing information for the campus system was not available. GIS data indicates there may be some limited loop connections on campus, but it is not currently possible to evaluate their size. Outside of additional system information becoming available, the model development may need to rely on pipe sizing assumptions based on the meter and backflow preventer sizes.

Domestic water use on campus has increased as campus population has increased over time, and as additional buildings have been constructed. As a result, the campus is experiencing a periodic, slight reduction in water pressure during peak conditions. This is most noticeable (i.e. difficulty flushing toilets) on the upper floors of tall buildings at higher campus elevations. The system-wide model described above would inform decisions about whether select modifications to the campus underground piping system are required to boost water pressure to levels that ensure campus safety as well as provide appropriate water pressure in all areas of campus. Replacement of existing water pressure booster pumps (domestic and fire) with higher capacity units may be needed to resolve the pressure issue.

## Sanitary

Campus sanitary sewer lines currently flow to the north, to a NKU-owned line along Three Mile Road. Due to needed repairs which the university has been unable to fund, transfer of this line to Sanitation District #1 (SD1) has been delayed, but such a transfer is a priority. Both the NKU and SD1 sanitary sewer lines along Three Mile Road have capacity issues limiting future development. The university has submitted a grant application to upsize the existing NKU line on the north side of campus and construct a new line on Johns Hill Road to serve the south side of campus. Increasing sanitary sewer capacity should be pursued prior to commencing projects with significant additional sanitary loads.

**FLOW TEST RESULTS**

| Hydrant ID | Location | Test Date | Static Pressure (psi) | Residual pressure (psi) | Pitot Pressure (psi) | Hydrant Flow (psi) | Calculated Flow @ 20 psi | Calculated Flow @ 10 psi | Calculated Flow @ 0 psi | PM# or MBP# |
|---|---|---|---|---|---|---|---|---|---|---|
| 9650 | 500 Nunn/BOK Loading Dock/FDC | 8/12/2020 | 80 | 70 | 50 | 1186 | 3121 | 3392 | 3645 | PM7 |
| 9635 | Nunn/@Welcome Center/Garage | 9/29/2020 | 85 | 80 | 40 | 1061 | 4239 | 4579 | 4900 | PM8 |
| 9900 | Carroll Dr/Parking Lot F | 9/29/2020 | 75 | 55 | 35 | 993 | 1715 | 1877 | 2027 | PM12 |
| 9720 | Kenton Dr/Kenton Parking Garage | 9/23/2020 | 65 | 40 | 30 | 919 | 1262 | 1407 | 1540 | PM1 |
| 9800 | 30 Campbell Dr/University Suites | 9/29/2020 | 70 | 55 | 35 | 993 | 1902 | 2099 | 2281 | PM9 |
| 9820 | 30 Campbell Dr/Near Parking Lot Q | 9/23/2020 | 75 | 55 | 30 | 919 | 1587 | 1737 | 1876 | PM4 |
| 9830 | 10 Campbell Dr/ Entrance to Woodcrest | 9/23/2020 | - | - | - | - | - | - | - | PM10 |
| 9535 | University Dr/@ BOK Arena | 8/12/2020 | 85 | 80 | 55 | 1244 | 4970 | 5369 | 5745 | PM11 |
| 9620 | Nunn Dr & Carroll/@ Carroll Dr. | 9/29/2020 | 25 | 15 | 30 | 919 | 632 | 1144 | 1507 | PM6 |
| 9700 | Kenton Dr./@ Norse Hall | 9/23/2020 | 75 | 55 | 25 | 839 | 1449 | 1586 | 1713 | PM3 |
| 9715 | Kenton Dr./@Herrmann Sc. Ctr. (access dr) | 9/23/2020 | 65 | 50 | 25 | 839 | 1518 | 1692 | 1852 | PM2 |
| 9805 | 70 Campbell Dr./ @ dead end by Maint. Bldg. | 9/29/2020 | 80 | 75 | 45 | - | - | - | - | PM5 |
| 9809 | Norse Blvd & Campbell Drive | 8/12/2020 | 95 | 85 | 40 | - | - | - | - | |
| 9502 | 3510 Alexandria Pike/NKU Callahan, Main Entrance | 7/31/2020 | 75 | 50 | 25 | 839 | 1284 | 1406 | 1518 | |

## Stormwater

Future campus development will continue to comply with Sanitation District No. 1 (SD1) stormwater quality and quantity requirements when more than one acre of earth disturbance occurs. The university is also obligated, per Commonwealth of Kentucky statute, to design to a minimum of LEED Certified level or higher for projects of $5 million or more. Of the master plan projects, the Science Center addition, BC renovation/addition, and the Basketball Practice facility will likely exceed the SD1 threshold for stormwater compliance controls. Smaller footprint projects may also offer opportunities for implementation of bioswale or other green infrastructure installations. Designed stormwater treatment improves cleanliness of storm runoff as it leaves campus. Such improvements often include temporary on-site storm water storage which reduces the peak flow rate leaving campus, increases storm sewer capacities and protects downstream watercourses.

For improvements below the one-acre threshold, incorporation of green infrastructure including permeable pavers, bioswales, and rain gardens is encouraged to help meet sustainability goals. An SD1 stormwater credit for stormwater improvements beyond the base requirements can be obtained, which would apply toward the $5.04/2600 sf of impervious area that the university currently pays.

Projects impacting over an acre should include budget capacity for rain gardens and bioswales to address water quality requirements and below-grade storage for water quantity controls. In addition to rain gardens and bioswales, other approaches including gravity separators, media filters, and extended detention in underground vaults should be considered.

Regional basins that would cover sections of campus tend to use a significant amount of land and are often unsightly (grassed basins with concrete bottom channels). Some of this effect can be mitigated through the formation of constructed wetlands where the detention area has a more natural feel. On the NKU campus, there is a low area at University Drive and Kenton Drive that could potentially be developed into a constructed wetland area.

The campus has expansive shale and a history of groundwater issues, especially in the Central Plaza area where the Fine Arts Center and Steely Library are located. Development projects should require geotechnical testing, including monitoring of groundwater levels, in advance of development.

*Example of Bioswale and Permeable Pavers*

# Implementation Strategy

Over the 15-year horizon of the Master Plan, several transformational projects require completion of enabling projects before construction can begin, while other recommended projects are flexible in their implementation sequencing. The implementation strategy outlines timing for proposed projects independent of funding. For example, renovation of Steely Library and the Civic Center can begin without enabling projects, as can the realignment of housing for first-year students. Athletics and recreation projects can also proceed without enabling projects should funding be available. While the Integrated Science Building is not dependent on enabling projects, funding may not be available in the near term.

The Herrmann Science Center addition, a high-priority project with no dependency on an enabling project, is a key enabling project for a series of strategic incremental projects identified for the academic core. The Science addition will provide swing space that will allow engineering technology to vacate the Business Academic Center, thus facilitating the renovation and additions that will house law and business. Once law relocates to the BC, Nunn can be renovated with an addition for engineering technology and visual art. The Fine Arts Center, Mathematics-Education-Psychology Center, and Landrum can be incrementally renovated based on funding and need, with additional renovations expected after the completion of Nunn. Engineering swing space in the Science Center can be backfilled to support growth in the basic sciences.

## Drivers of Future Investment

1

Prioritize projects that support academic success, enhance the student experience, and increase the sense of belonging

2

Modernize and renovate poor condition space

3

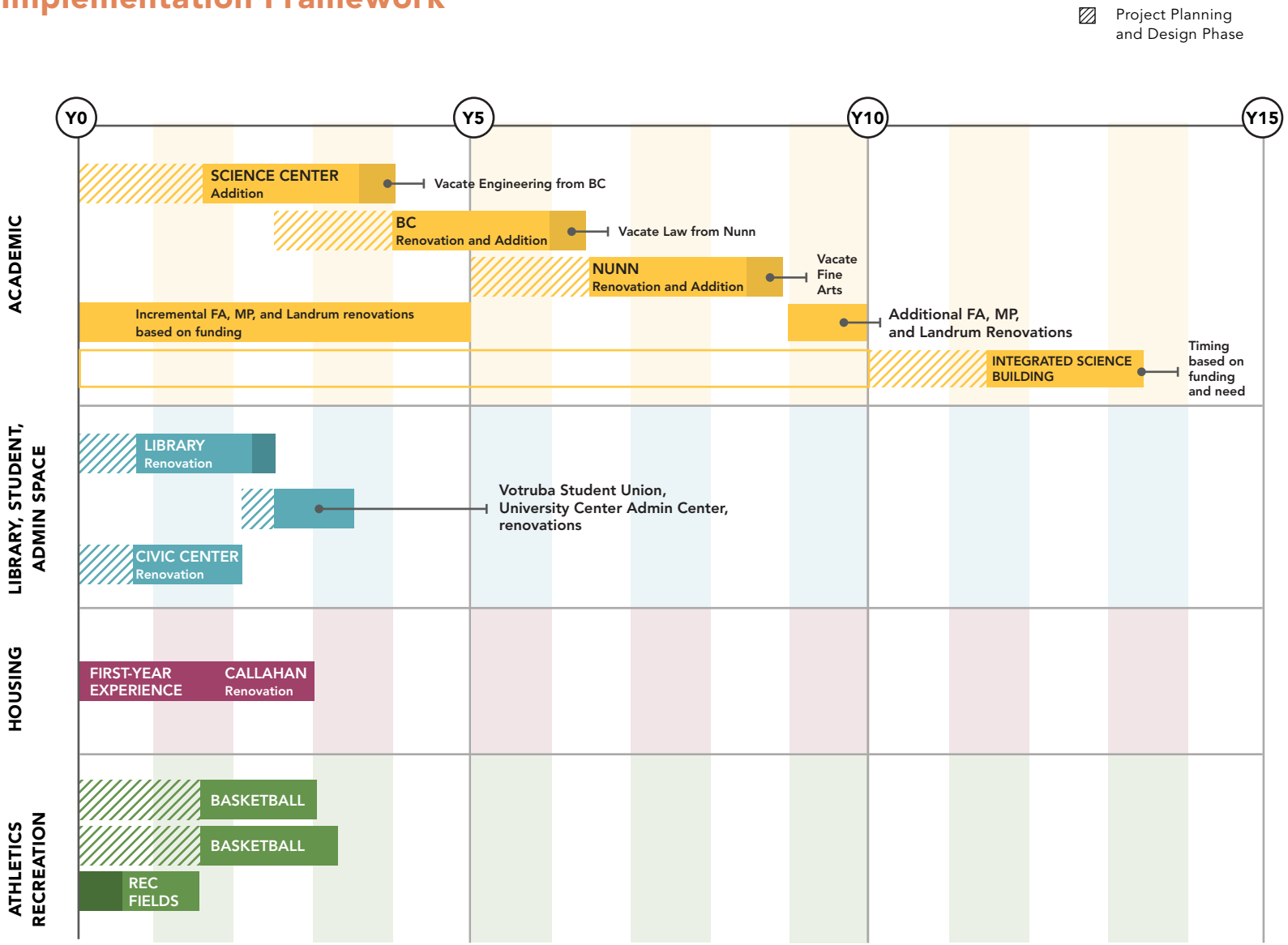
Advance NKU's competitive advantage in STEM-H as well as the Arts

4

Support future digital transformation and strategic partnership development


GEARUP
WITH INFORMATION LITERACY
GATHER INFORMATION

# Implementation Framework




**Note:**

- *The timing of projects in the table references when they can logistically start and does not consider funding*
- *During the final phase of the Master Plan, the timing of each project will be adjusted according to priority and funding potential*

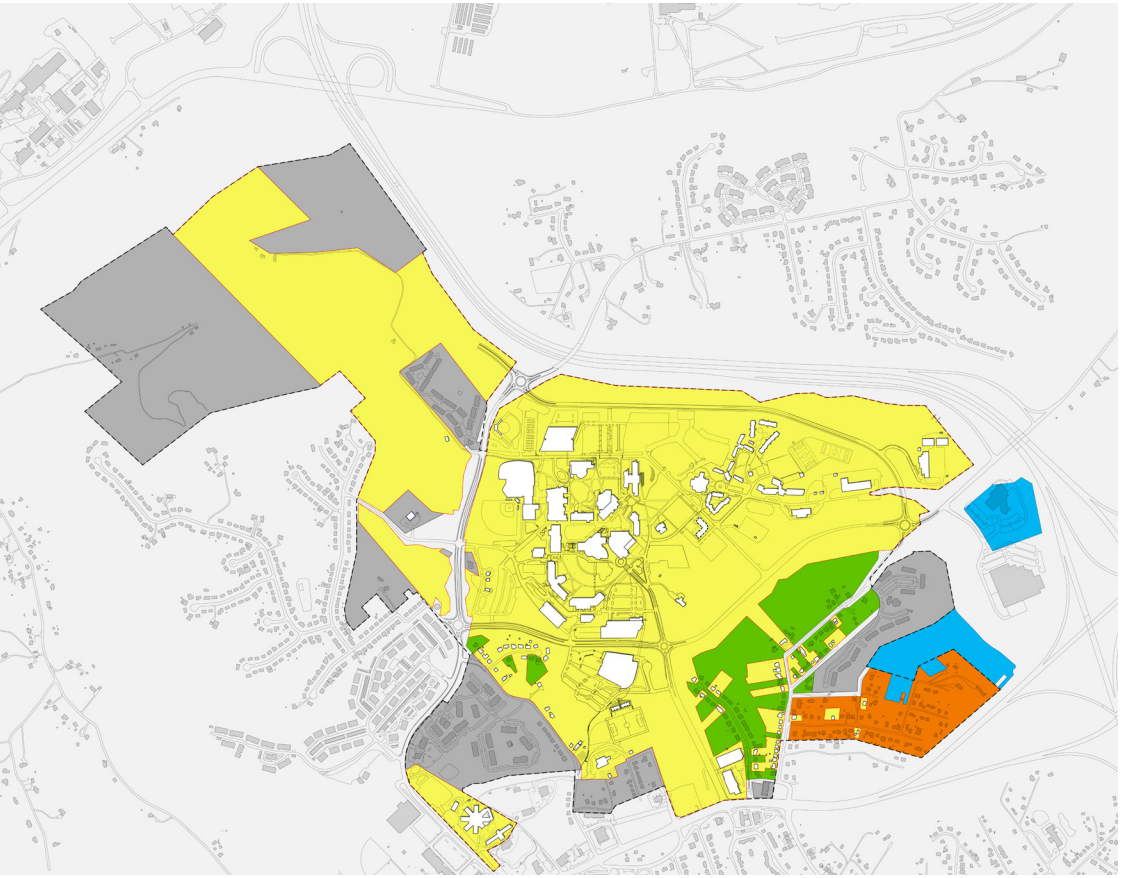
## Long-Term Vision (15-plus-year development sites)

The Master Plan identifies long-term development sites, or sites beyond the 15-year time horizon of the plan. Agreement on these long-term development sites maintains future flexibility and ensures that campus improvements identified in the Master Plan are consistent with long-term goals and opportunities. The plan identifies footprints for academic expansion west of the proposed Interdisciplinary Science Building. Residential expansion is envisioned adjacent to the new residence hall currently under construction and also to the east, adjacent to Callahan Hall and the Civic Center. Athletics footprints, including a potential multi-purpose center and stadium, further define the campus perimeter. Future structured parking footprints are also identified.

The existing Operations and Maintenance Facility is identified for future relocation to a new facility on Hilltop Drive. The existing Operations and Maintenance site, the area adjacent to Campbell Hall and the existing Maintenance Building, the site west of the St. Elizabeth medical office building, and Town Center Phase 3 are identified as long-term opportunities for innovation and partnerships.

South of Johns Hill Road, opportunities for a public-private partnership could be pursued to create a wellness community. Embedded in the steep topography, a health-focused mix of housing and a retail node could be integrated into the landscape with amenities such as on-site food production, farm-to-table restaurants, events, and trails. Such a community is an opportunity to engage with alumni and the local community, serve as a destination, and create partnerships for ongoing sustainability initiatives.


Long-Term Vision
New construction
1 Wellness community
2 Academic expansion
3 Innovation and partnerships
4 Residential expansion
5 Facilities maintenance
6 Athletics
7 Parking
275



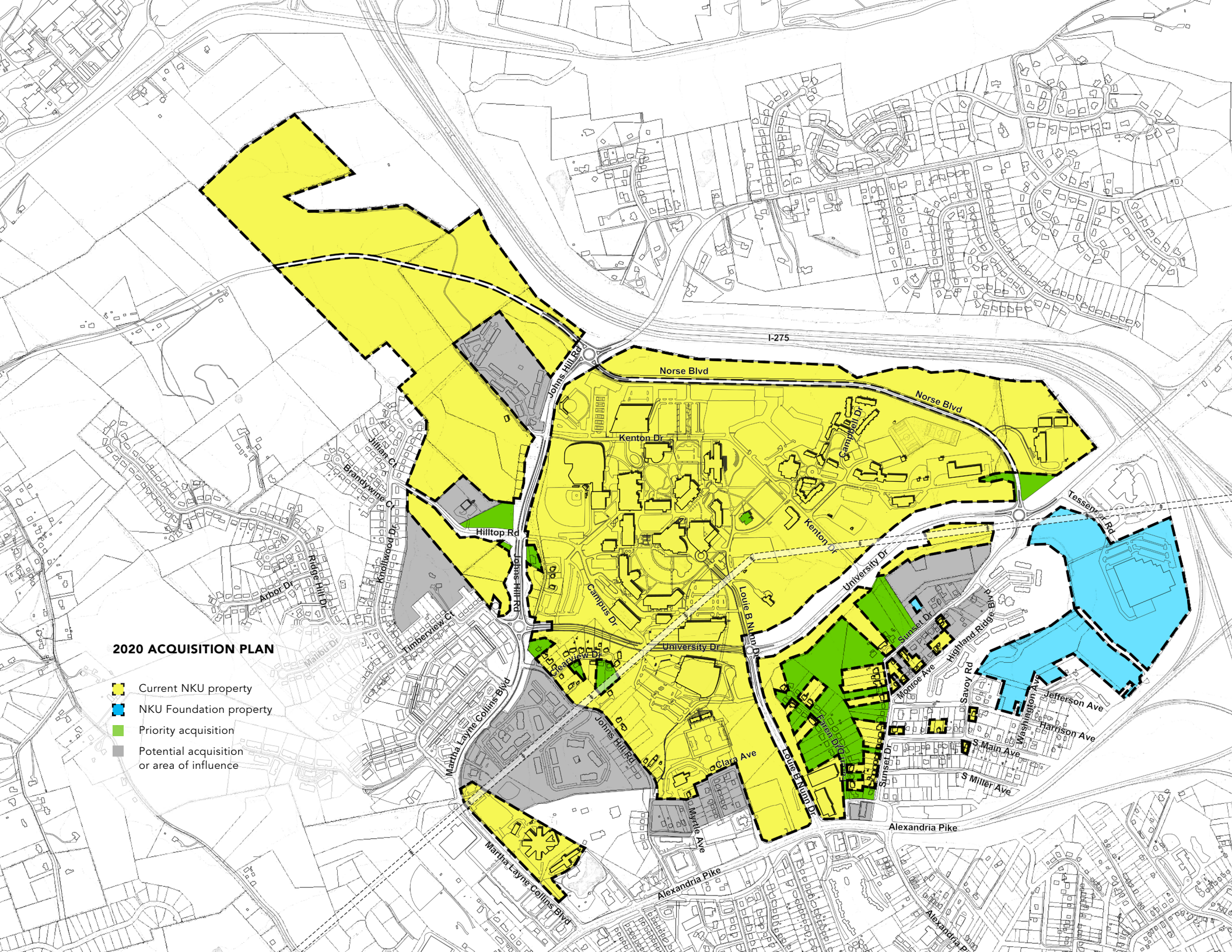
**2009 ACQUISITION PLAN**

- Current NKU property
- NKU Foundation property
- Proposed acquisition - priority #1
- Proposed acquisition
- Proposed acquisition - low priority

## Land-Acquisition Plan

The university's land-acquisition plan was updated to align with the recommendations of the Master Plan. Near-term priority projects identified in the Master Plan are not dependent on property acquisition. The plan has been updated to eliminate acquisition priorities identified in the 2009 Land Acquisition Plan which are not required for implementation of near-term or long-term 2020 Master Plan projects.

The 2020 Land-Acquisition Plan was conceived with the knowledge that acquisition and partnerships support the long-term vision as well as the quality of development at the campus perimeter but also that acquisition takes time and investment. Therefore, the 2020 Land-Acquisition Plan identifies a number of sites as "potential acquisition or an area of influence," indicating that the university is interested in the use and future of the property, and acquisition may or may not be required.


2020 ACQUISITION PLAN
Current NKU property
NKU Foundation property
Priority acquisition
Potential acquisition or area of influence
I-275
Norse Blvd
Johns Hill Rd
Kenton Dr
Campbell Dr
Hilltop Rd
Jillian Ct
Brandywine Ct
Knollwood Dr
Ridge Hill Dr
Arbor Dr
Malibu Dr
Timberview Ct
Campus Dr
University Dr
Louie B Nunn Dr
Tessenear Rd
Sunset Dr
Highland Ridge Pkwy
Monroe Ave
Savoy Rd
Washington Ave
Jefferson Ave
Harrison Ave
S Main Ave
S Miller Ave
Eden Drive
Clark Ave
Myrtle Ave
Martha Layne Collins Blvd
Alexandria Pike

# A Living Document: Adapting to Change

The campus of the future will be impacted by multiple factors. The Master Plan provides a coherent vision that will guide decisions and allow the university to respond to new opportunities as well as challenging forces.

## Adapting to Change

Northern Kentucky University's future will be shaped by a variety of factors including student demographics and academic market demand, changes in technology, political priorities, ability to secure funding, and the local and national economy. Partnership opportunities, course delivery methods, research initiatives, student life amenity and dining trends, housing demand, and deferred maintenance priorities will also inform implementation decisions during the tenure of the Master Plan. Furthermore, the COVID-19 pandemic of 2020-2021 has introduced additional uncertainty about the future of work and gathering that reinforce the need for flexibility to adapt to changes in society and higher education.

As these forces spur change over the Master Plan's planning horizon, it is possible that new degree programs designed to meet changing educational and career trends will have space implications for the campus. The planning principles, concept plan, goals, and strategies identified in the Master Plan are designed for flexibility in anticipation of change. The plan provides a coherent vision that will allow the university to react to challenging forces and respond to opportunities in the near and long term. The Master Plan and the space assessment should be updated after three, five, and seven years to acknowledge completed projects and to review and realign critical assumptions. In conjunction with regular Master Plan updates, the university should consider periodic assessment of the need for additional residence hall beds as well as evaluation of the adequacy of campus parking.

The university's capital plan, which is updated biennially, will be shaped and informed by the Master Plan. The capital plan will outline funding priorities for near-to-mid-term projects and will be developed collaboratively with university stakeholders.


NKU
STUDENT UNION

# Acknowledgments

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