

MIDDLESEX COUNTY: COMMUNITY, INNOVATION AND OPPORTUNITY STRATEGIC INVESTMENT PLAN

11/1/22



PROGRESS DRAFT FOR REVIEW





A data-driven CIO Strategic Investment Plan conceived as a collaborative and integrated strategy to benefit the future of Middlesex County

Vision for the College

Heart of the Community

Middlesex County's central location in the region is a key part of its success and Middlesex College is in many ways the center, or heart, of the County.



With the College's and County's similar goals and shared values of innovation, creating healthy and inclusive environments, encouraging educational opportunities, and promoting workforce development they have together crafted strategy to optimize the campus's physical resources and promote opportunities to enhance the wider community.

The CIO Strategic Investment Plan for Middlesex College is designed to support:

- Learning
- Training
- Recreation
- Culture
- Living

Each of the planning ideas as part of the CIO Strategic Investment Plan for the campus's land and facilities are designed to support this shared vision.



Learning

Provide flexible and inclusive facilities that support the highest quality educational opportunities with programs that support growing local industry in the community.



Training

Support students, the workforce, and local businesses in shaping and developing skills to support ever-changing and growing industries.



Recreation

Enhance the County's parks and recreation options with facilities that support students, the community, and the greater region.



Culture

Provide facilities that support County's thriving arts, history, and cultural activities and programs for students and the local and regional populations.



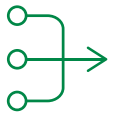
Living

Enhance the student experience with facilities to live on campus and provide opportunities to enliven the campus with non-student populations.



Middlesex County Goals

Middlesex County, NJ and its businesses, partners, and residents are forging a path to spur innovation, economic growth, and opportunities for the community. Destination 2040 is Middlesex County’s strategic plan shaping how the County will grow and evolve. Destination 2040 envisions the County’s role of fostering emergent opportunities across a variety of fields - education, healthcare, technology, private businesses – serving and connecting residents with the tools needed to lead healthy, prosperous lives.



Continually streamlining the management structure and processes



Investing in an Economic Development strategy and growth plan, campaign, and organizational structure and resources that will drive economic and business growth and expansion in key sectors and industries



Expanding and promoting parks and green space



Maintaining the strongest financial health and fiscal discipline



Continuing to make public safety a top priority



Leveraging our municipality and other partner relationships to provide coordinated services and solutions that the County can most effectively and uniquely provide



Creating targeted educational opportunities at Middlesex College and the County STEM and vocational schools, aligning with local business needs, and creating unique career tracks and opportunities for students



Continuing to provide and innovate in health, human, and social services



Expanding investment and grants in arts, history, and culture



Utilizing technology to provide efficiencies and enhanced productivity across all operations



Middlesex College Goals

As part of the CIO Strategic Investment Plan process, stakeholders, administrators, faculty, and staff shared their goals for Middlesex College during a series of meetings.



Improve the visibility of the College within the County



Increase connections with the community and community partnerships



The campus could have a livelier presence



Improve the physical infrastructure and facilities



Post pandemic, find the balance of in-person and on-line classes



Modernize the older classrooms



Increase the number of study spaces



Promote informal learning and collaborative spaces



Provide more innovations in learning for students and new ways of teaching for faculty

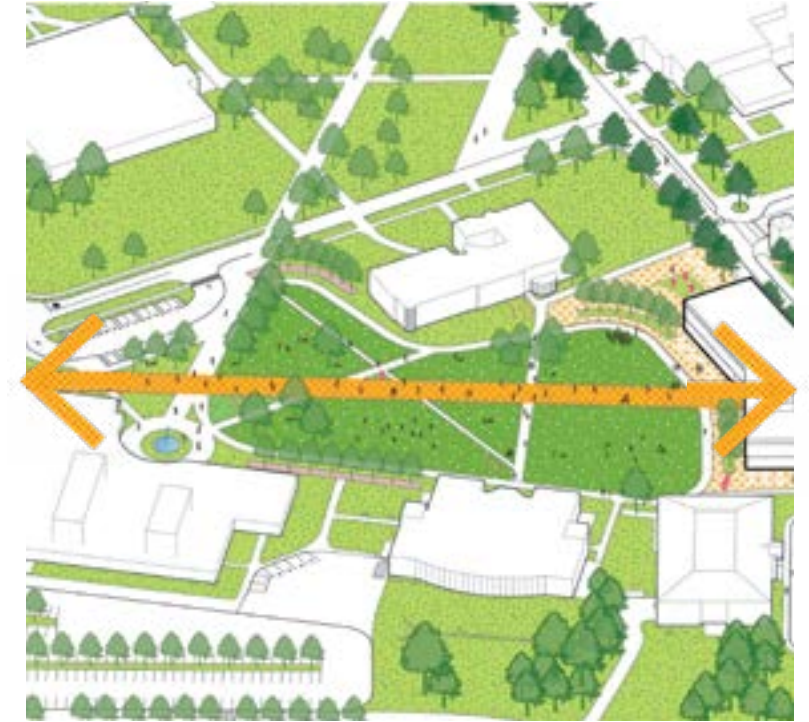
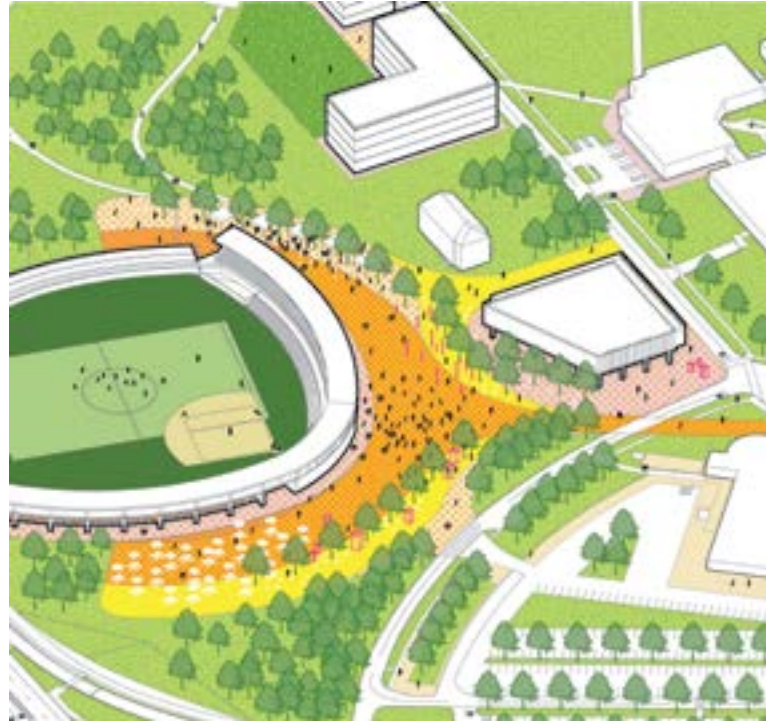


Consolidate programs scattered throughout the campus to improve synergies



Adding a residence hall could create an on-campus experience for students

5 BIG MOVES



The key CIO Strategic Investment Plan recommendations spring from **five big moves** to advance the College and County's goals for the future. These collaborative physical strategies for the campus plan address the current needs and future growth of the College while incorporating opportunities to integrate County programs and facilities that can enhance the trajectory of Middlesex. These five moves, which support the shared vision, address current and future goals: improved visibility of the campus, increasing activities on the campus and use of the College's facilities, and enhancing the facilities and landscape to support diverse campus life activities for students and visitors. Each major move includes numerous components that can be implemented as independent projects in phases over time as funding permits.

1 Multipurpose Community Complex

Create an active and **inclusive** community presence and **destination** at the campus's 'front door'

2 The Spine

Connecting the campus and the park from north to south



3

Pathways & Places

Strengthen the **mobility** network and **enhance** placemaking

4

Campus Life

Enrich the **campus** experience for all to thrive

5

Athletic Complex

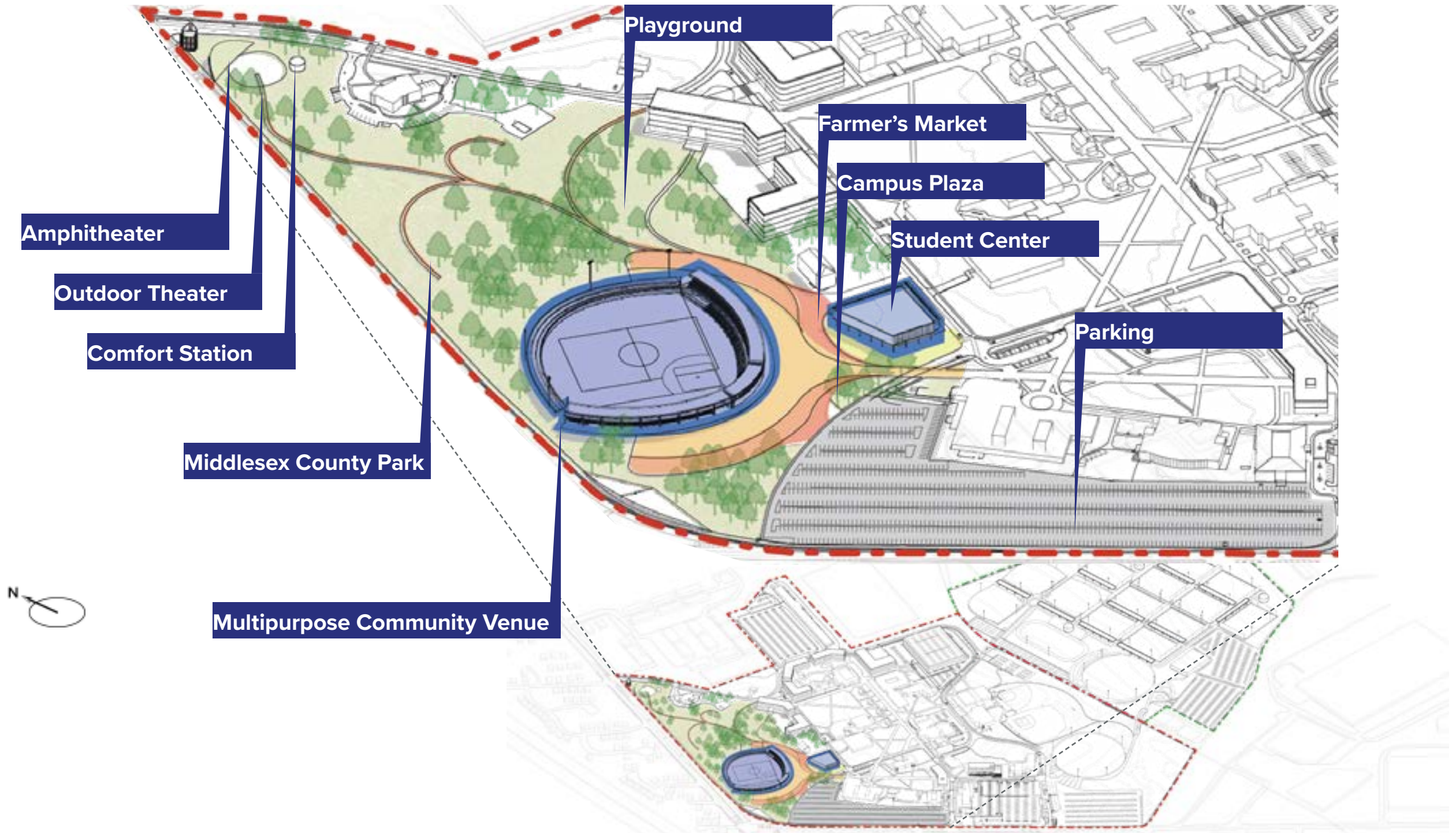
Become a **destination** for local and regional sports experiences

1 Multipurpose Community Complex

Create an active and inclusive community presence and destination at the campus’s ‘front door’

Connecting campus and community physically and programmatically is an important goal for both the College and the County and both agree that improving the visibility of the College would be advantageous. The northern portion of the campus adjacent to Woodbridge Avenue is considered an ideal location to incorporate facilities and open spaces that support the student population and visitors to the campus. After numerous site planning studies, it was determined that the 32.25-acre portion of the campus could be reconfigured to support amenities such as a multi-use recreation venue and a community park.





Multipurpose Community Venue

An open-air, multi-purpose recreation facility with 4,500+ seats is envisioned on the northern portion of the campus near the intersection of Woodbridge Avenue and Mill Road. This prominent site is highly visible from the two well-traveled roads attracting passersby as well as the College's students and faculty. The venue would be designed to accommodate a diverse variety of activities for both the community and the College such as concerts, cultural events, and multiple types of sports, either professional or semi-professional, such as baseball, soccer, or lacrosse.

This new facility, which would be maintained by the County, has the potential to generate revenue for the County and the College as well as create potential partnerships with outside groups.

An initial program is expected to include:

- Synthetic field sized and lined to accommodate baseball, soccer and lacrosse
- Protection netting
- Performance lighting
- Video board
- Seating for 4,500-5,500
- Concourse with concessions
- Dugouts
- Back-of-house support functions
- Club lounge suites with prep kitchen and restrooms
- Press box
- Home and visiting team facilities
- Coach and administration suites
- Parking area for 1,000 cars
- Hardscape design of approximately 250,000 SF to accommodate a variety of supporting activities
- Landscape design

With New Jersey being the 'Garden State' and the County's emphasis innovation in agriculture, it is fitting to host a weekly Farmers' Market on the campus grounds and an ideal location would be the new facilities supporting the Recreation Venue. This would serve to draw the community to the College campus as well as providing an important wellness component for students and local residents.





Middlesex County Park

The bucolic landscape in the northern portion of the campus is well-suited to becoming a community park and is easily accessible from Woodbridge Avenue and Mill Road. An initial concept to adapt the existing site would include community playgrounds, an amphitheater, a comfort station, walking and paths, as well as site lighting and other enhancements to the existing landscape.





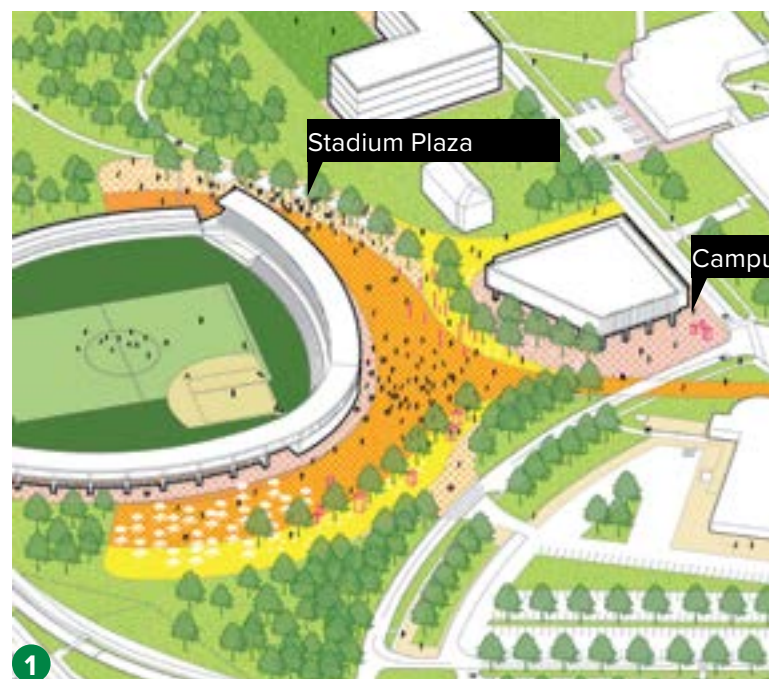
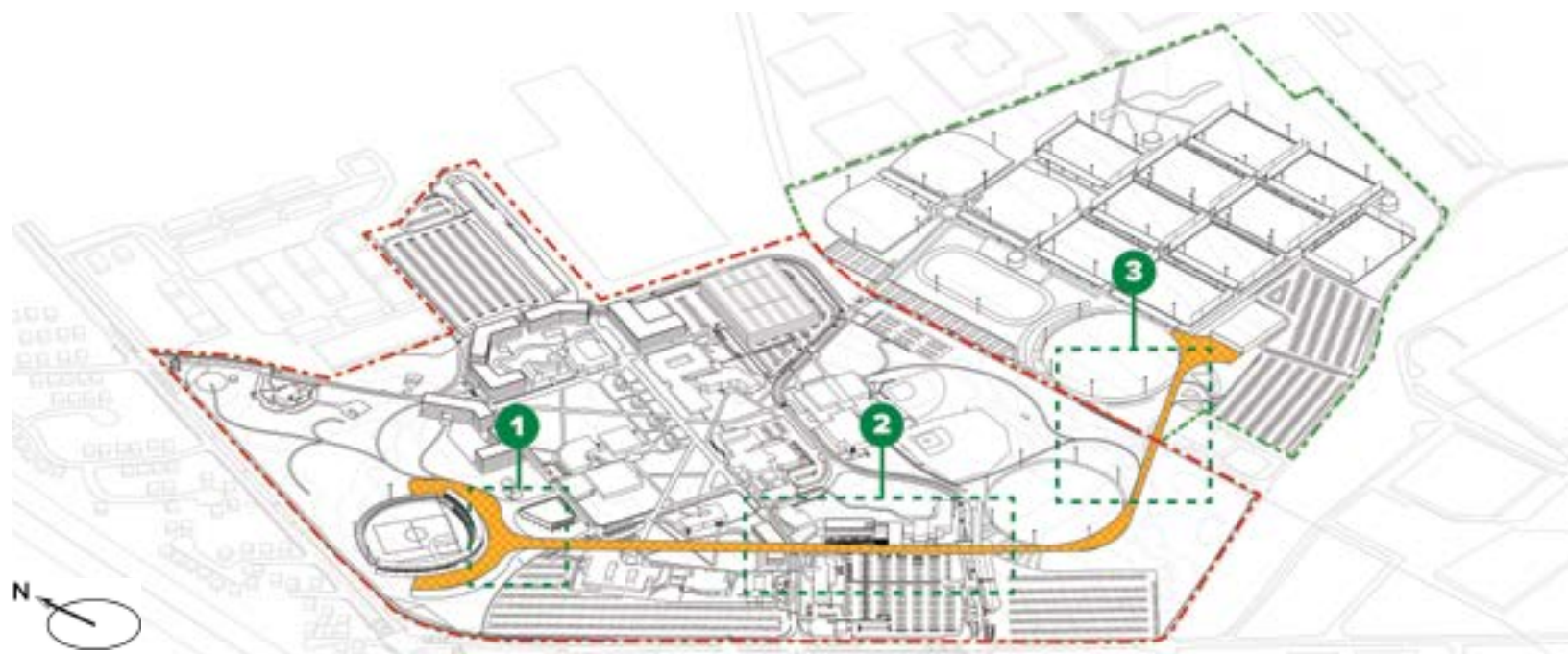
2 The Spine

Connecting the campus and the park from north to south

Today the primary College facilities and activities are located predominantly in the center of the campus. Future plans for the campus include growth throughout the entire acreage from the northernmost corner to the southernmost so a clearly defined path, or 'Spine', will significantly improve access and mobility for students and visitors. This curving Spine would accommodate pedestrians throughout its length and at Park Side Drive vehicular access would be permitted.

The .7-mile Spine would span from the Multipurpose Community Venue at the north portion of the campus through the campus's West Quad to Park Side Drive between a future cricket field (shown on pages 66 & 64) then continue via a pedestrian footbridge into the heart of Thomas Edison Park.

This pedestrian footbridge would begin on the southern portion of the campus grounds and would terminate in Thomas Edison Park near the proposed cricket field and proposed fieldhouse. The footbridge would be approximately 10-feet wide and 1,000-feet long bridge over the railroad tracks from Middlesex College to Thomas Edison Park. The footbridge would be fully accessible with a gentle slope up and over the existing rail line and include handrails and lighting. This amenity would encourage walkers, runners, families with children and strollers, those using wheelchairs, as well as bicyclists.





3 Pathways & Places

Strengthen the mobility network and enhance placemaking

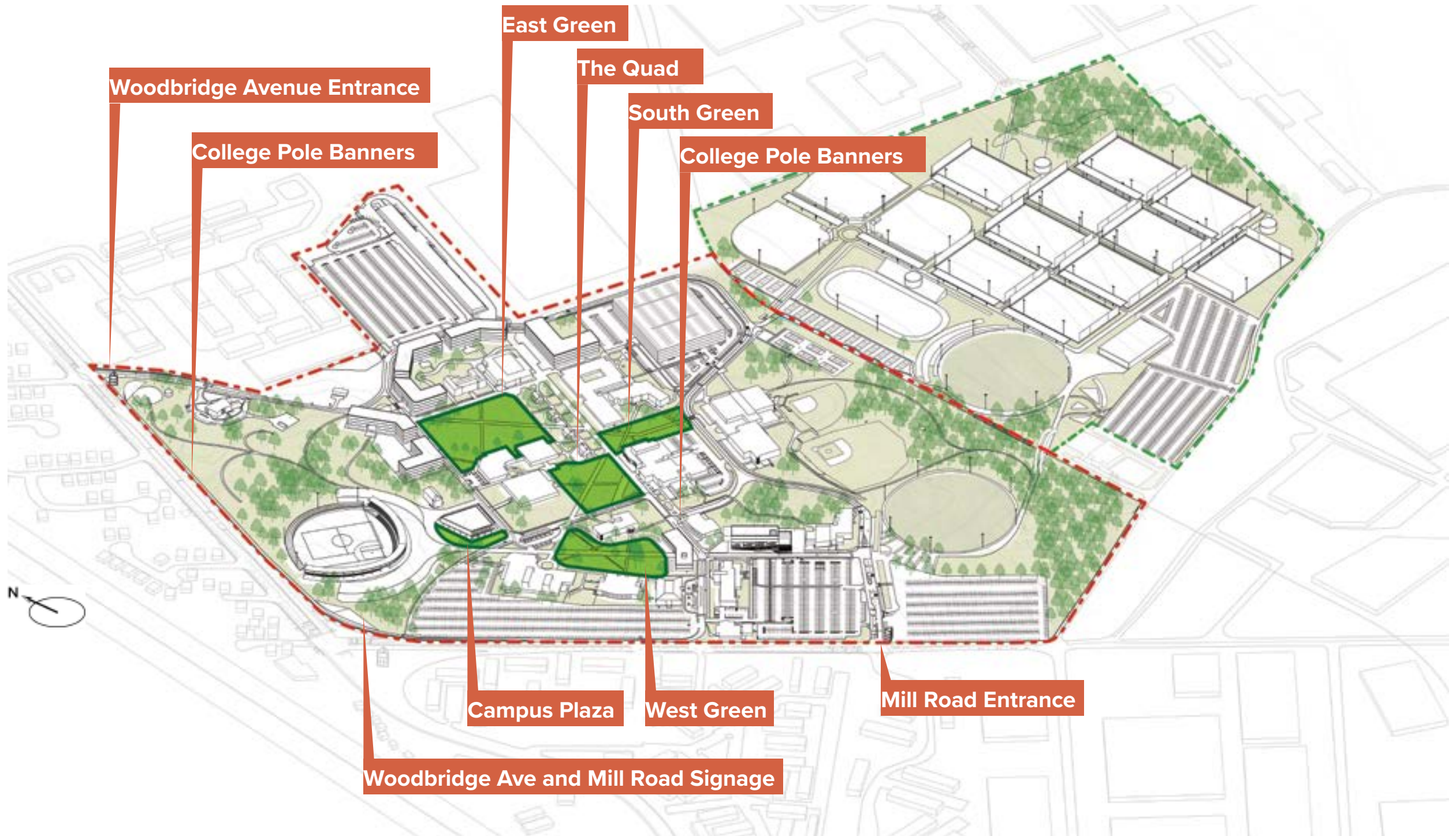
The campus has a park-like setting with its generous mown turf open spaces and groves of mature canopy trees. Majestic oaks are a defining characteristic of the landscape. To enhance the campus, changes that encourage placemaking, promote the pedestrian experience, and improve mobility will be incorporated into the grounds.

Enhancing the Landscape

The campus has two gateways: the main entrance from Woodbridge Avenue that connects to College Drive East in the northeast corner and the secondary entrance from Mill Road into the southwest corner of the campus. With the goal to enhance the roadway presence of the campus, the following improvements are recommended:

- At both gateways, provide more expansive landscaping using deer resistant perennials, annuals, and shrubbery that offers color, texture, and seasonal interest.
- Provide highly visible, larger scale signage, set within a landscaped island at the corner of Woodbridge Avenue and Mill Road.
- Install enhanced college pole banners along Woodbridge Avenue and Mill Road.
- Update wayfinding signage to better reflect the College's identity and to assist visitors.
- Add a vegetative screen along Mill Road to limit views of the parking lots.
- Replace the chain link fence along Mill Road to match the black steel fencing along Woodbridge Avenue.





Placemaking

There is a desire to have a diversity of more usable exterior spaces on the campus. Currently, outdoor gathering spaces are primarily limited to small areas adjacent to building entrances and unprogrammed open turf spaces. In the middle of the campus are three large open exterior spaces - The West Green, The Quad, and The East Green. A fourth exterior space, The South Green, is proposed to connect between the Colts' Concourse and the Wellness Center. The existing exterior areas have not typically been actively used; however, students from the Academy frequently recreate on the West Green between classes.

With site improvements, The Greens and the Quad can provide a variety of passive and active uses for students, faculty, and visitors. The West Green, which will be bisected by the Spine, can continue to be used as an active space as well as providing a ceremonial area for convocations, graduations, and other special events. The Quad's location is ideal for serving as the heart of the campus and being a more active hub for student activities, connections. The edges of the East Green will become more defined as the residential development is constructed. With this added population this lovely large lawn area could be dedicated to a variety of spaces for the residents, outdoor classes, and oasis of quiet contemplation and study.

To enhance the bucolic landscape for expanded use, the following improvements are suggested:

- Install public art/sculpture throughout the campus
- Install a primary water feature to serve as a focal point and area of contemplation
- Provide outdoor classroom spaces and a small amphitheatre
- Incorporate more seating opportunities, including spaces for individual use or small groups
- Dedicate areas as active spaces and provide convenient supporting equipment (i.e. outdoor foosball)





Pathways

Pedestrian Experience

From the onset of the master planning process, enhancing the pedestrian experience was a key goal. To supplement the Spine, which connects the campus and park north to south, a stronger west to east pedestrian connection is desirable. This connection or pathway, the proposed Colts' Concourse', will enhance the pedestrian experience from Otlowski Drive on the west to L'Hommedieu Hall on the east. This new, well-lit pathway would have a wider and more prominent pavement surface as well as thematic campus banners and signage and added plantings.

The Colts' Concourse will service the entrances of multiple buildings, including proposed future renovations to Main Hall and Center Buildings 1, 2, 3 & 4. The Concourse will incorporate new passive and active spaces along its length for gathering, outdoor teaching, and contemplation areas to sit under the trees and enjoy the beautiful campus.



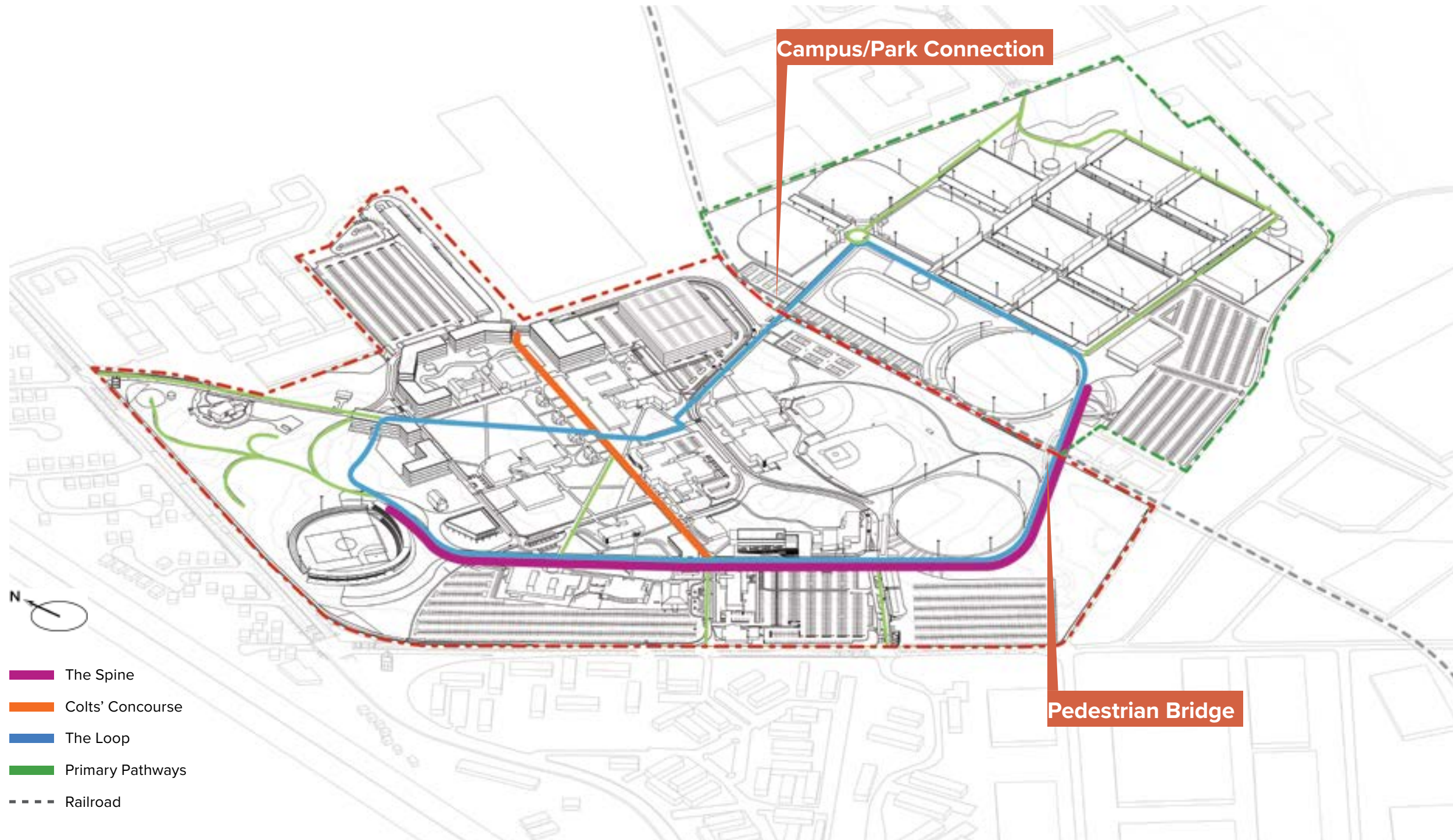
The Loop

As part of the initiative to promote the pedestrian experience, a continuous 1.5-mile multi-use loop is proposed to circulate around the campus as well as connecting in two locations to Thomas Edison Park. This multimodal loop, would provide students an alternative car-free method for circulating safely around the campus as well as encouraging the general population to visit the campus for regular exercise whether walking, running, dog walking, or bicycling. Although the campus is not currently connected to a county bicycling network, once that is created, this could be a destination within that network.

Campus/Park Connection

Currently there is a rail line separating the campus and the park. At a minimum, the existing link should be renovated to provide more a visible, safer, and fully accessible connection. Ideally, the rail line, which is infrequently used, should be abandoned to provide contiguous connections and opportunities to optimize the land used by the rail line.





Improving Mobility

Public Transit

NJ Transit provides bus transportation to the campus via the 814 route (New Brunswick) and the 813 route (Perth Amboy). There is one bus stop used for both routes located adjacent to the Campus Bookstore and the College Center. As campus growth prepares for new facilities, particularly on the east side of the campus, and to make it more convenient, a second bus stop on College Drive East adjacent to the proposed residential complex is proposed.

Primary Circulation and Parking

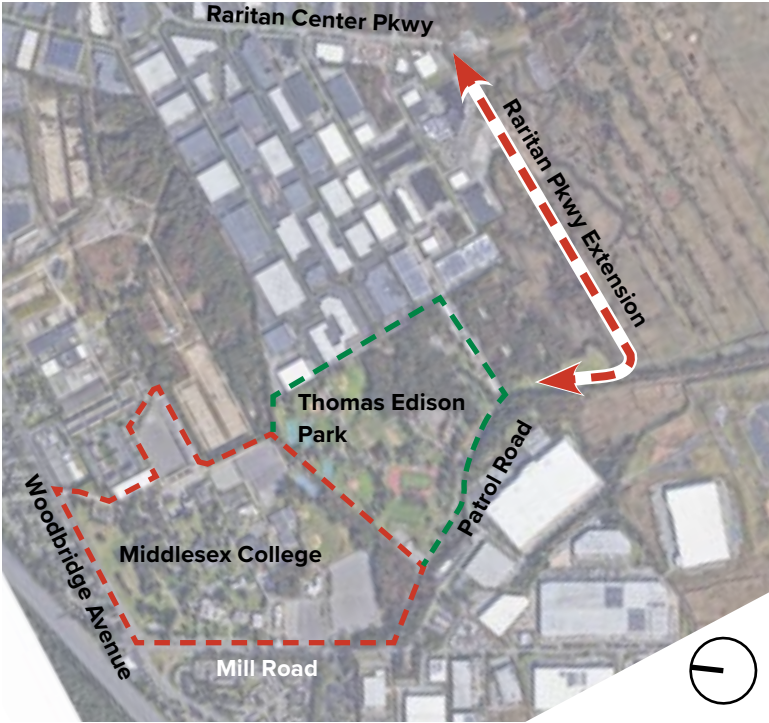
Most visitors access the campus via private vehicles from either the Woodbridge Avenue entrance or the Mill Road entrance. Despite current dependence on automobiles, the goal is to keep most vehicular access to the perimeter areas and to maintain primarily pedestrian access for most of the campus. To enhance this goal, future primary vehicular movement should be limited to College Drive East and Alumni Drive.

The current campus parking count is 4,793 and with modifications the future parking count is estimated to be 5,041.

Primary bicycle access to the campus will be via the Woodbridge Avenue county bicycle route's connection to Mill Road.

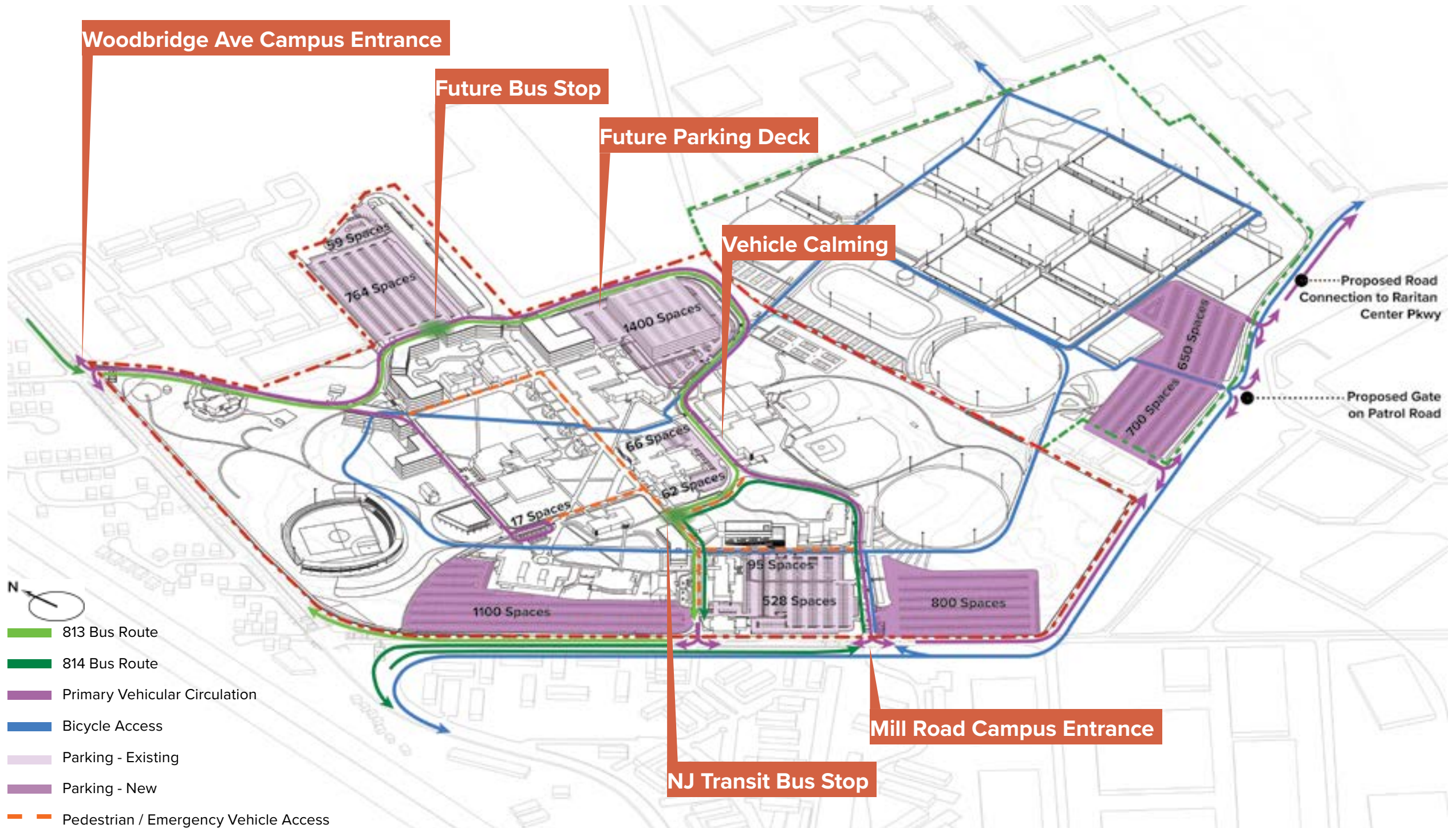
Pedestrian/Emergency Vehicle Access Only

By limiting vehicular access to the perimeter of campus, this creates the opportunity for more prominent pedestrian pathways such as the proposed Colts' Concourse. The pedestrian pathways will be connected to the primary campus vehicular circulation routes and have the structural capacity and width to accommodate emergency vehicles.



Proposed Connection from Patrol Road to Raritan Center Pkwy





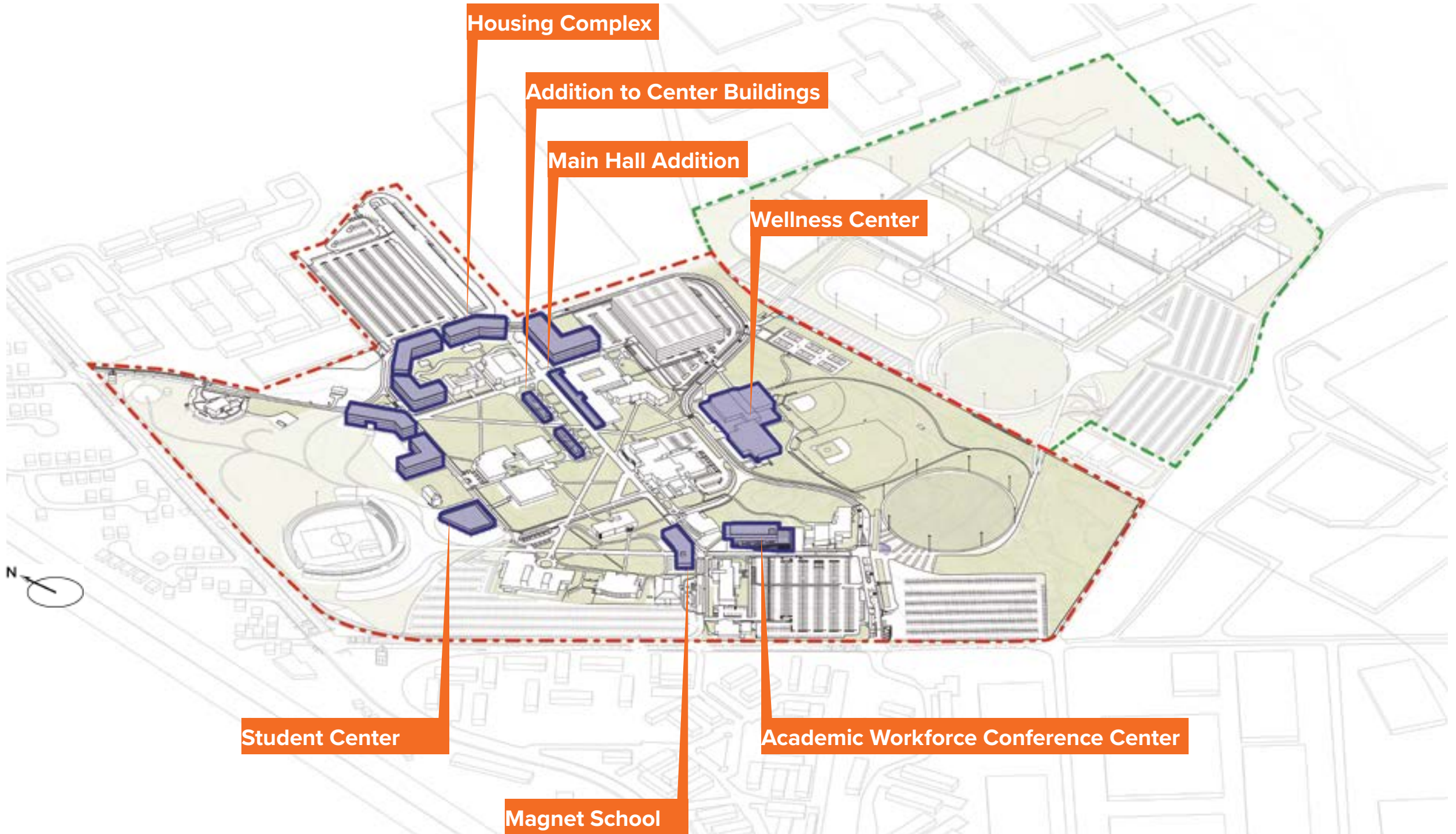
4 Campus Life

Enrich the **campus experience** for all to thrive

For almost 60 years, Middlesex College has made an immeasurable impact to the community and its students. Now with the integration of the County and the College's vision and goals, the campus can be more of a destination and better promote a holistic and integrated experience focused on sustainable and vibrant places where students and the local community can thrive.

Activities, programs, and opportunities on the campus that are diverse and inclusive will allow students and the community to develop a sense of connection and belonging. For students of all ages to truly be part of a community, they must feel comfortable and safe. The intent is to create an ecosystem of buildings and spaces, both outdoors and indoors, that support a culture of community, connectivity, and inclusion. These environments include academic facilities, collaborative spaces, recreational buildings and places, food venues, retail amenities, and housing.





Housing Complex

Addition to Center Buildings

Main Hall Addition

Wellness Center

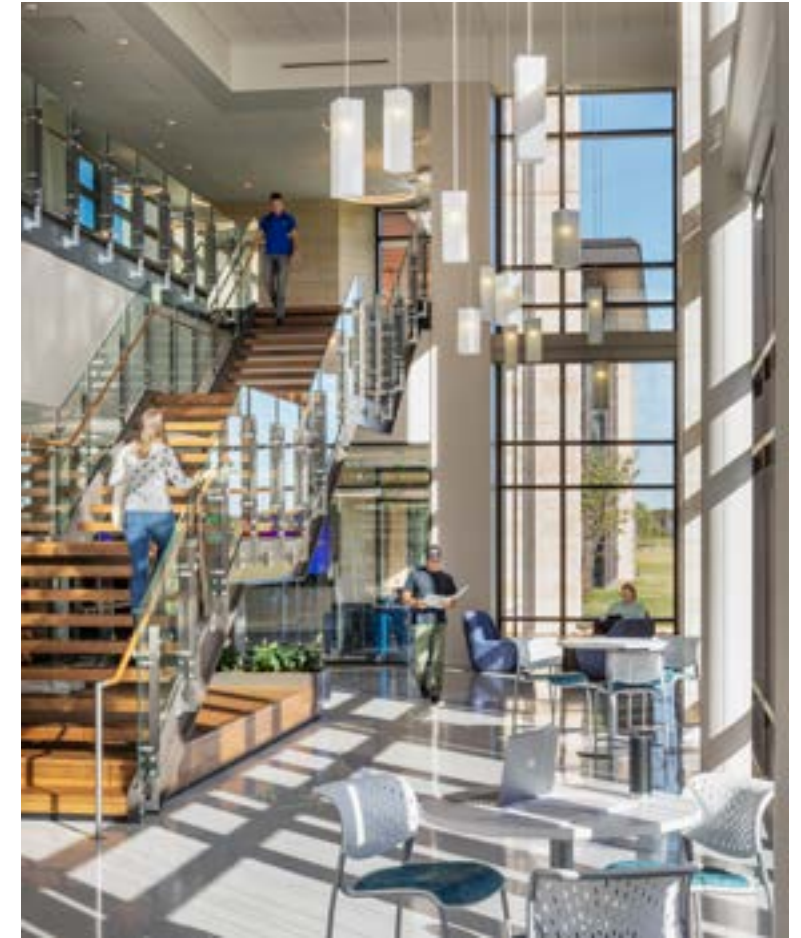
Student Center

Magnet School

Academic Workforce Conference Center

Student Center

A new, 30,000 gross square foot Student Center is envisioned to support the needs of the student body, particularly on the north side of campus. This will include a variety of campus spaces including food venues and kitchen facilities, multi-use and collaborative spaces of various sizes, learning and study spaces, offices and other support spaces for the College students, faculty, and staff. A benefit to the selected location is the proximity to the new Multipurpose Community Venue and the Middlesex Park. The Student Center will also support food and beverage service when events are being held nearby. Most importantly, the building will be designed to advance learning, be flexible, adaptable, and promote collaboration and community building.





Academic Workforce Conference Center

This facility was originally conceived as two separate facilities, but after further evaluation it was determined that by combining the Academic Building and the Workforce Development Center into one structure it would avoid duplication of some spaces, require only one site on campus, and be more economical to build.

The selected site is sloped and therefore allows both programs to have a direct entry onto their main levels. The Academic Building would be located on the upper portion of the site with access from Otlowski Drive and the main entry of Workforce Development Center would be accessed from Park Side Drive.

The combined building is anticipated to house the following spaces:

- Classrooms & Breakout Spaces
- Computer Labs
- Intensity 1 Labs *
- Intensity 2 Labs **
- Intensity 3 & 4 Labs ***
- Study Spaces & Breakout Spaces
- Academic Offices & Support
- Workforce Offices & Support
- Various Size Conference Rooms and Breakout Rooms
- Food Service

*Program Intensity 1 has the largest space requirements. Programs in this category require large equipment, large work areas, performance spaces and large collaborative group areas.

**Program Intensity 2 are programs that have equipment needs for medium scale activities, akin to scale-up and small construction.

***Program Intensity 3 require smaller workspace collaboration but also have smaller workspace requirements for desktop equipment. Program Intensity 4 has denser environments. These are typically lecture halls with auditorium style seating. Programs in this category can be taught in large groups.





Magnet School

Current Magnet School Education

The Middlesex County Academy for Science, Mathematics and Engineering Technologies, also known as Edison Academy, is located on the western edge of the west quad across from Crabiell Hall. This technical high school is part of the Middlesex County Magnet School District. The school was conceived in the mid 90's as a preparatory school for students heading to college in STEM careers. Edison Academy is a selective high school that leverages its location on Middlesex College to offer its students opportunities to earn college credits through the Middlesex County College High School Scholars Program.

Expansion of Vocational Education

Building on the success of the Edison Academy the County has proposed locating a second magnet school on campus. Located adjacent to the Edison Academy and workforce development center facilities, the Middlesex County Magnet School of the Future will capitalize on its location to offer its students access to college level classes. The School of the Future will introduce its students to Environmental Technology and Engineering, Information Communication, and Global Logistics. The building and surrounding grounds will be designed to be a teaching tool and demonstrate the technologies the students will be pursuing in their programs.

The building will distribute 42,000 SF of space on two floors and accommodate up to 368 Students. The design of the building will employ sustainability strategies that will not only reduce the buildings carbon footprint but also be a demonstration piece for the students who attend the school. The building will include:

- Exceptional thermal performance to reduce mechanical loads
- Collection and reuse of water
- Maximizing solar energy
- Use of local vegetation to eliminate the need for irrigation and provide a natural habitat for wildlife
- Maximizing daylighting
- Optimization of Energy Performance





Cricket Field

Middlesex County is committed to promoting multi-cultural activities and advancing diversity, equity, and inclusion. Middlesex County, with a diverse population, has the largest Asian population in the state with over 237,000 residents (2021 New Jersey Monitor). With the County's central location in the state plus the popularity of cricket with the Indian American population one initiative is to incorporate a cricket field. Cricket teams and leagues are expected to draw from both the local community and Middlesex College students. Cricket grounds have an overall diameter of between 450-500 feet for a total area of 159,043-196,350 square feet. The proposed site is on the southern portion of the campus. A cricket field requires relatively low maintenance and could be used for other activities and events.



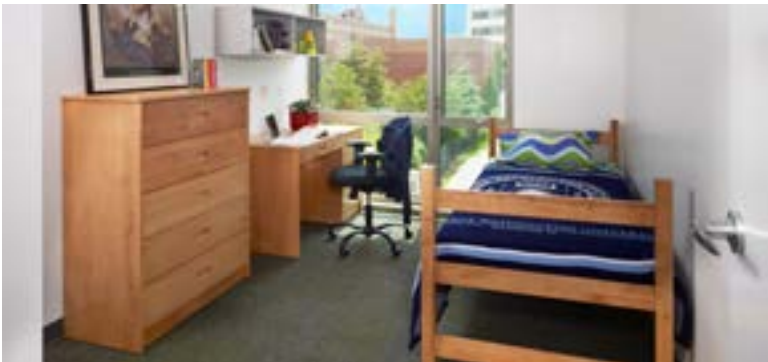


Housing

Colleges and universities often group residence halls for a variety of reasons: to create a community of students to assist with operational logistics such as dining services, and for economies of scale in construction. Residence halls are often created around units of perhaps 200 beds. These facilities are often three- to five-story structures with the lowest floor typically assigned to common spaces and services with the student bedrooms grouped in cohorts ranging from 20-40 students plus residence assistants (RA) on the upper floors.

A residence hall program has not yet been developed and if the College wants to pursue housing a final program will need to determine the optimal bed/bath arrangements, required supporting spaces, RA ratio to students, plus many other items. In the interim, a residence hall for students is likely to include: student rooms, RA rooms, bathroom facilities, study spaces, multi-use spaces, communal kitchens, recreational spaces, and laundry facilities. In addition, food service facilities would need to be included in the building or located nearby.





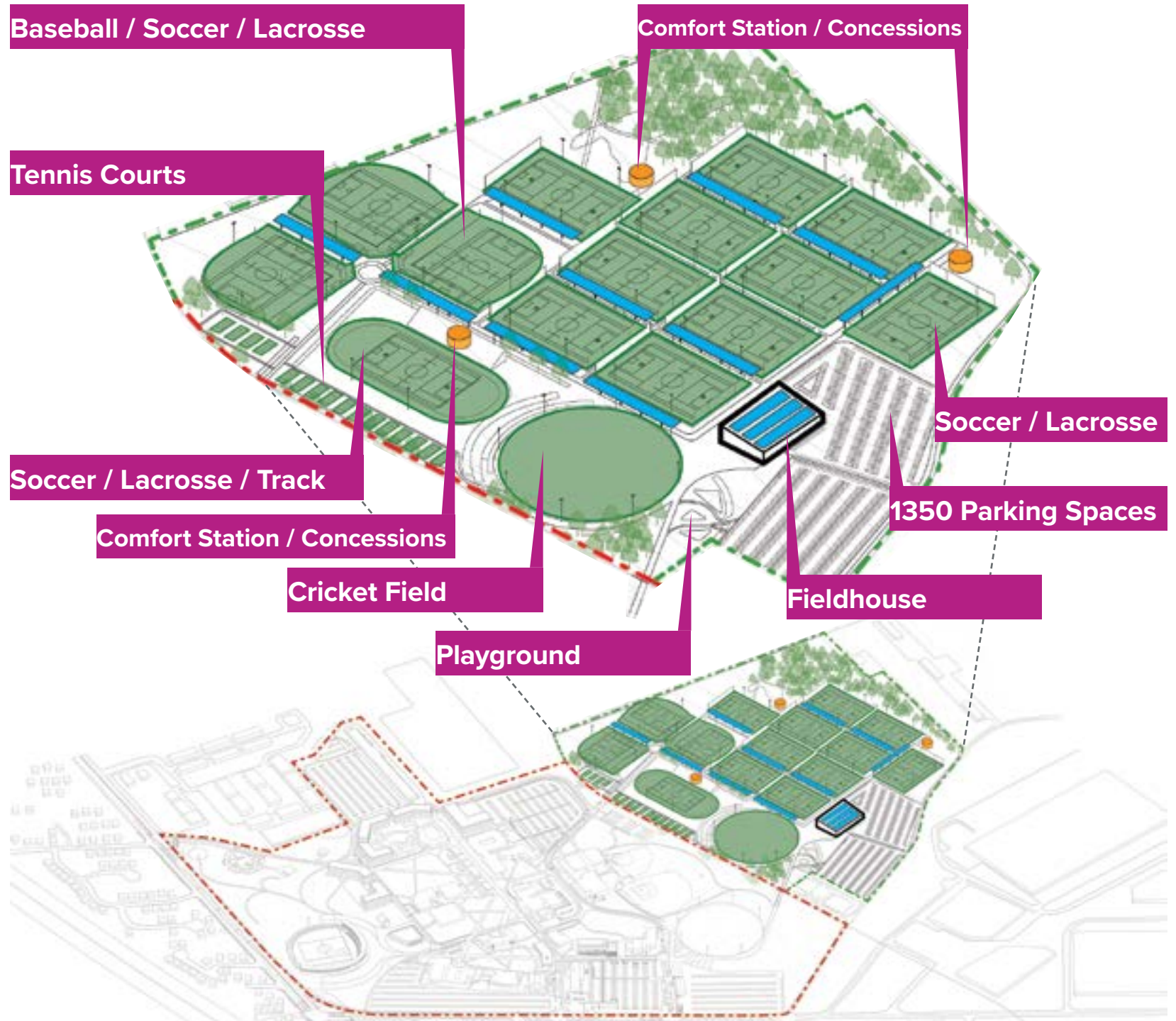
5 Athletic Complex

Become a **destination** for local and regional sports experiences

The Athletic Complex is all about expanding activities and energy at the park. Currently, Thomas A. Edison Park is one of the busiest in the County; however, with its important location the County envisions creating a more active facility that can support a regional presence and destination as an athletic complex. In addition, a destination complex can contribute to generating revenue for the County.

The College's adjacency on the southeastern border to the 96.1-acre site Thomas A. Edison Park is an asset for both the College and the County; however, an active but infrequently used Conrail freight line separates the campus from the park. To improve connections between the parcels, both owned by the County, the proposed pedestrian bridge will greatly increase access and use between the campus and the re-envisioned park. The concept for the Athletic Complex includes:

- Ten multi-sport synthetic fields lined for lacrosse, soccer, and rugby
- Three multi-sport synthetic field lined for baseball, lacrosse, soccer, and rugby
- Sixteen hard surface tennis courts
- A championship field and track with large grandstands
- 500-foot diameter natural grass, recreational cricket field
- Protection netting, performance lighting, and bleachers
- Prefabricated fieldhouse for concessions, restrooms, and maintenance equipment
- Comfort stations throughout the park
- Pedestrian pathways
- Parking for 1,350 cars

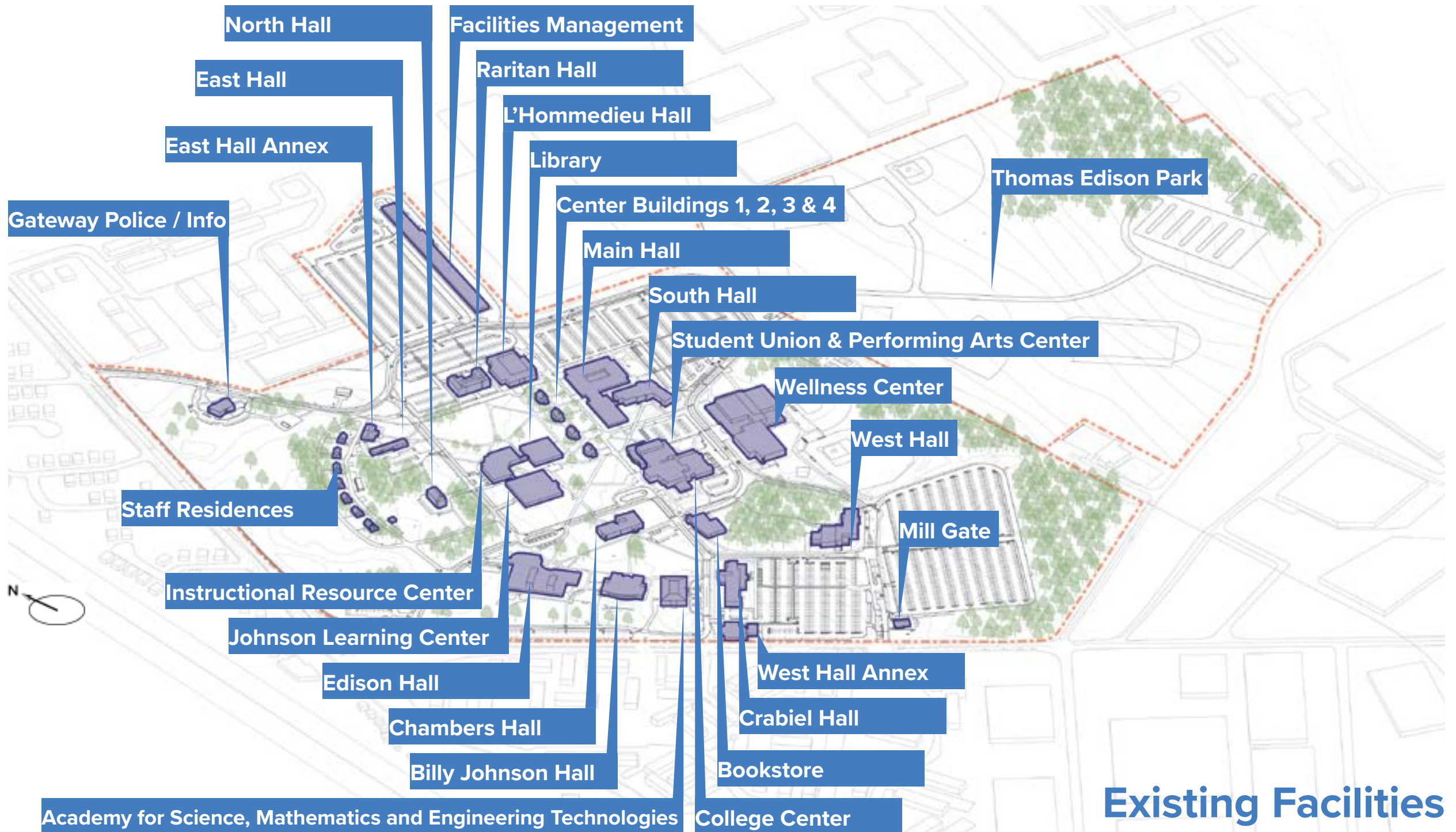








Middlesex College



Existing Facilities

