

University of Michigan North Campus



Master Plan Update | Summer 2008

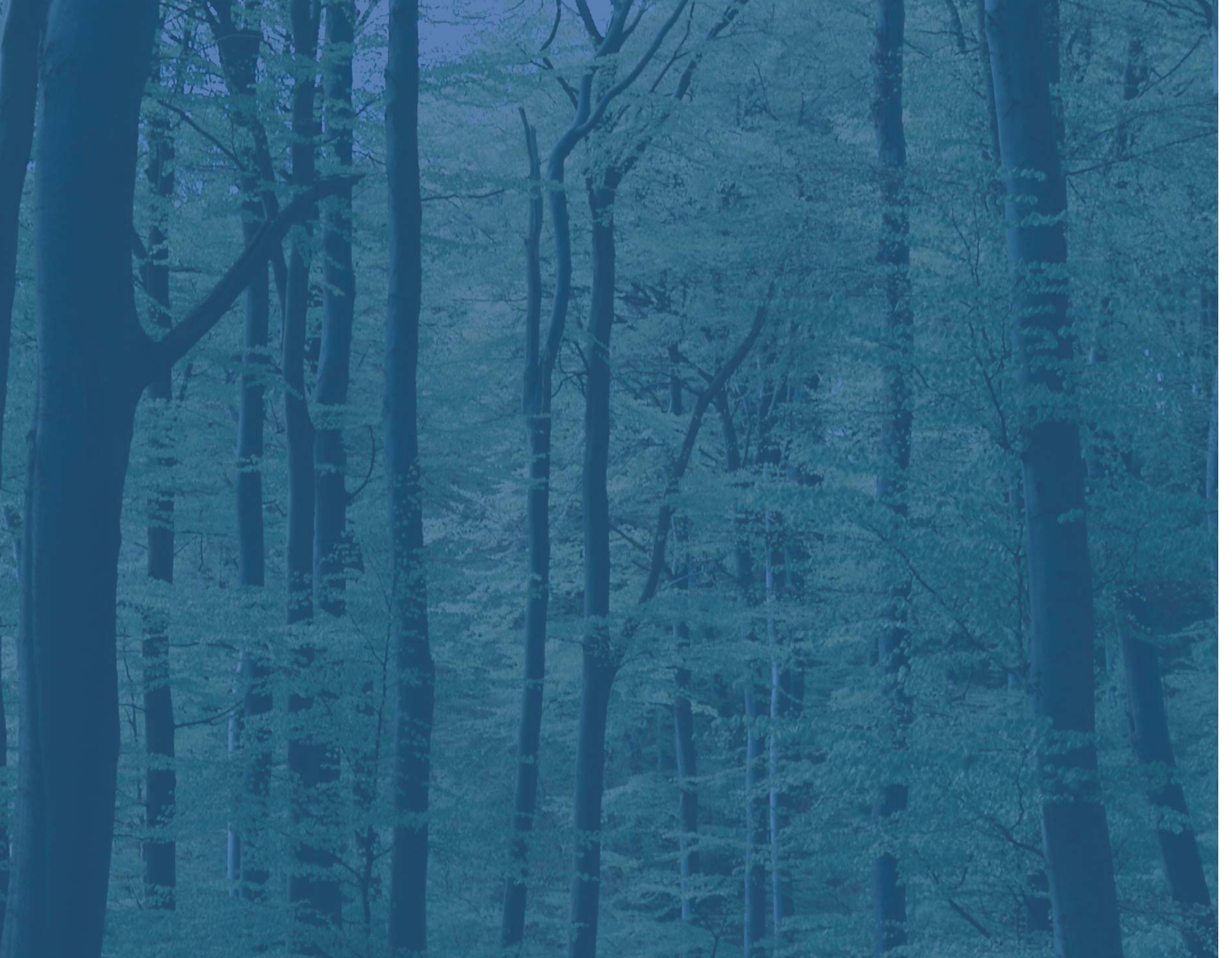


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1.0 North Campus - The Place



North Campus Central Core Area

1.0 North Campus - The Place

From its beginning as a research campus in the 1950s, North Campus has evolved to become a major center of academic and research activity at the University of Michigan. North Campus is now home to the School of Art and Design, the Taubman College of Architecture and Urban Planning, the College of Engineering, the School of Music, Theatre and Dance, and the School of Information. North Campus encompasses more than 7 million gross square feet of academic, research, support and residential space, as well as cultural and library facilities of university-wide significance including the Walgreen Drama Center and the Duderstadt Center. It is the residential home of more than 4,000 students, and is utilized daily by more than 14,000 faculty, staff, and students. It functions as one of the five campuses of the University in Ann Arbor, which include Central Campus, South Campus, the Medical Center, and East Medical Campus.

Development of North Campus has reached an important juncture. As fewer development opportunities exist on the established Central Campus, North Campus will play an increasingly important role in the future of the University. To that end, the North Campus Master Plan Update (Plan) reinforces the fundamental concept that the University of Michigan is a single university with interdependent campuses and sets out a robust framework for the incremental transformation of North Campus to support the emerging and future needs of the University. The Plan envisions a vibrant campus core, new development connecting the core to the community to the north along Plymouth Road, and various support areas that will serve the University at large.



Lurie Engineering Center



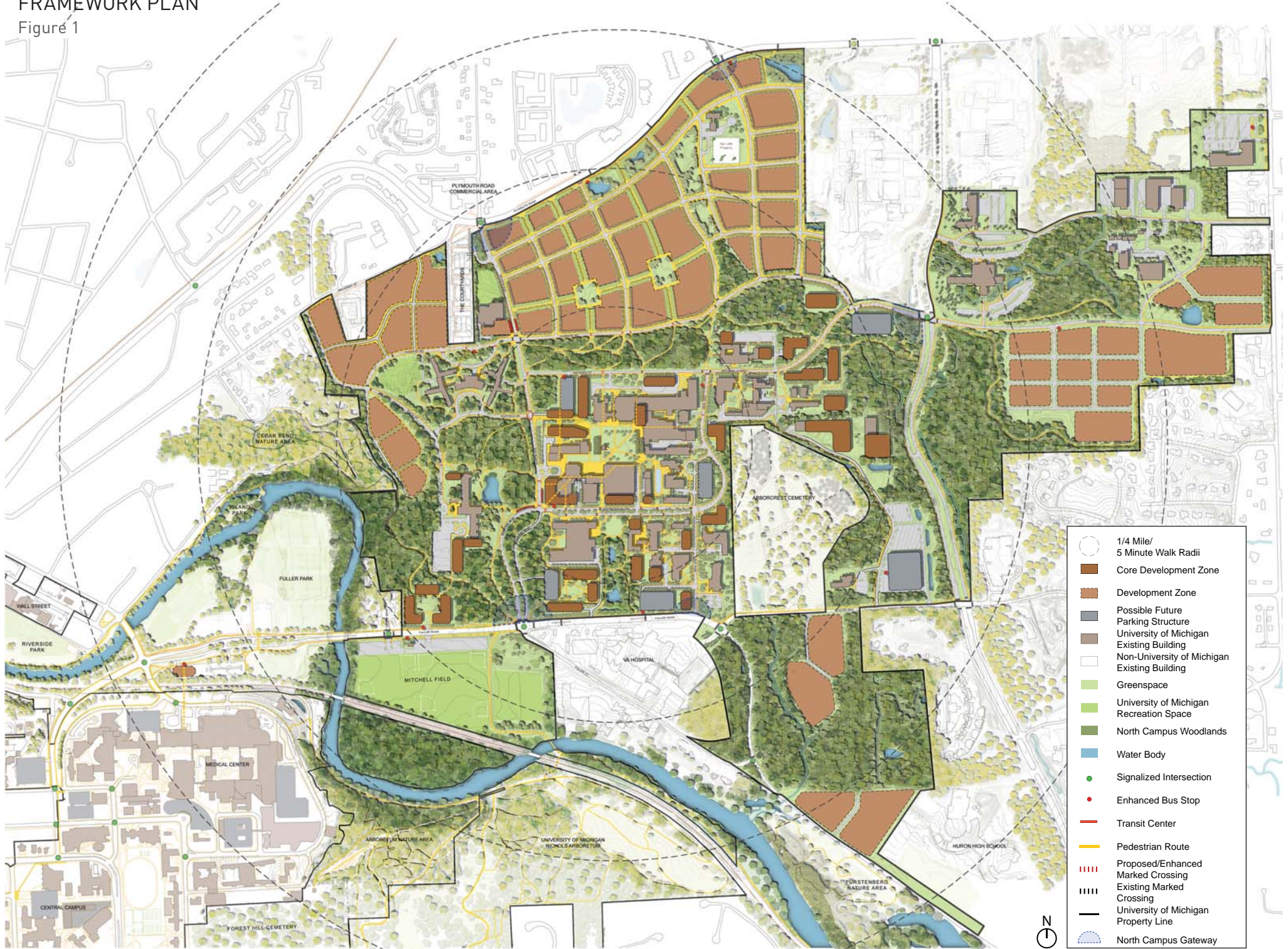
Duderstadt Center



Plaza at Computer Science and Engineering

FRAMEWORK PLAN

Figure 1



Master Plan Update Overview

The Master Plan Update (Plan) provides a flexible physical framework for coordinating incremental development for the next several decades. It responds to the known and anticipated needs of the University, and attempts to allow sufficient flexibility to respond to future programmatic requirements that cannot be predicted today. It references and builds upon the previous planning studies carried out over the past fifty years of North Campus development.

The Plan is based upon a careful analysis of the land topography, development patterns, history and historic resources, hydrology, woodland system, ecology, circulation, parking, utilities, and existing land uses of North Campus. It responds to the need for connectivity both internally within North Campus, as well as externally to the Central, Medical and East Medical Campuses. There is also a strong emphasis on strengthening connections with the surrounding community, especially north to the Plymouth Road commercial district and south to the Huron River Valley.

The Plan promotes four guiding themes:

- 1. Create Strong Connections.** The Plan provides for comprehensive and coordinated pedestrian, bicycle, transit, and vehicular systems within the boundaries of North Campus, all of which are planned with user convenience, comfort, and safety in mind. The Plan also calls for stronger functional linkages to the Medical Center, East Medical Campus, Central Campus, and the community, through enhanced connections. The Plan reinforces psychological continuity within North Campus, between North Campus and the other University of Michigan campuses, as well as between North Campus and its natural context.
- 2. Promote Campus Vitality.** The Plan focuses on enhancing the overall quality and vitality of North Campus as a unique place. It identifies opportunities for siting facilities and services which will make North Campus a vibrant, around-the-clock destination for the broader community.
- 3. Optimize Development Capacity.** Within the framework of open space and circulation established in the Plan, opportunity sites for future growth are identified. Guidance is provided with regard to use based on the context, connectivity, and other parameters, recognizing the need to maintain the flexibility to respond to unknown or unforeseen program requirements. The Plan identifies a future additional development capacity of 9-10 million gross square feet (North Campus currently has 7 million gross square feet of developed space).
- 4. Respect and Incorporate Environmental Features.** The Plan recognizes natural features as an integral part of the identity and character of North Campus and places value on existing wooded areas and the unique setting of the Huron River Valley.

STUDY AREA

Figure 2



Study Area

North Campus is located approximately one mile northeast of Central Campus on approximately 800 acres within Northeast Ann Arbor. It lies within the context of the Huron River Valley and the associated open space network consisting of city parks, the green corridor of the river, woodlands, and steep slopes.

North Campus is generally defined by Plymouth Road on the north, Fuller Road on the south, Green Road on the east, and the Huron River on the west. It consists of the following nine sub-campus areas defined by topography, the road network, and functional uses:

Central Core Area - location of the primary existing academic and research facilities

East Core Area - location of existing facilities such as François-Xavier Bagnoud Building and the Space Research Building

South Core Area - undeveloped land on the north side of Fuller Road south of the Moore Building

“Northwoods Village” Area - current location of the Northwood housing complexes I-IV

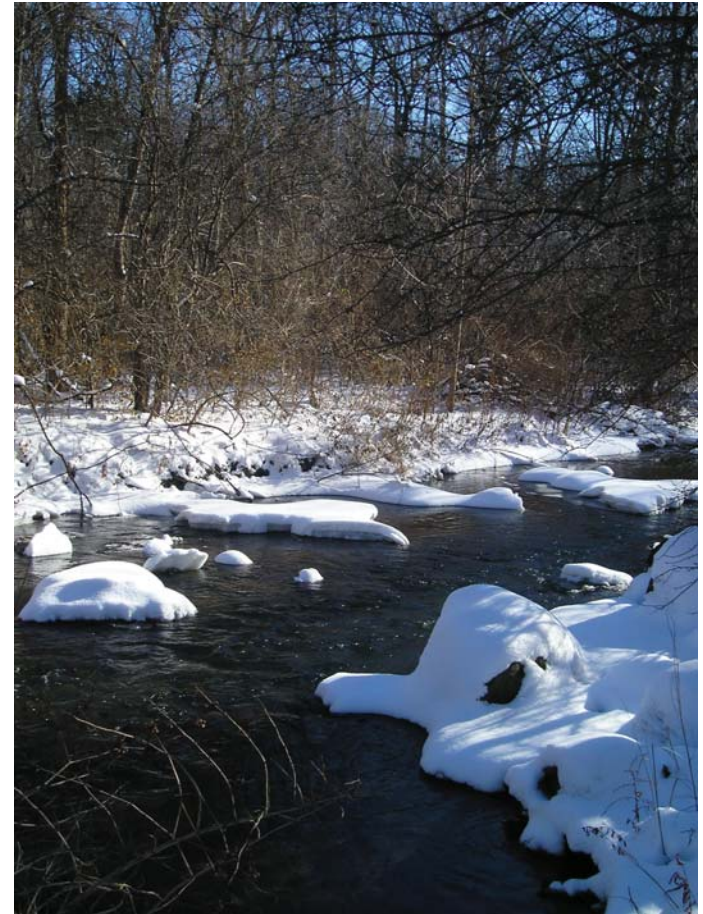
West Area - location of several residential buildings west of Murfin Avenue and north of the Moore Building (Bursley Hall and the Baits complex)

Draper Road Area - the area east of the privately-owned Arborcrest Cemetery and location of support services and commuter parking lots

Glazier Way Area - an undeveloped and partially wooded parcel south of Glazier Way

Mitchell Field Area - University-owned recreation fields located on the Huron River

East Area - area east of Huron Parkway which includes family housing (Northwood V), support services, and office space



Millers Creek east of Huron Parkway

The Planning Process

The process leading to the development of the Master Plan Update commenced in the fall of 2004 when the Planning Advisory Committee (PAC) was charged with focusing its efforts on updating the master plan for North Campus and in the preparation of a vision statement. PAC had been appointed by University President Mary Sue Coleman in February 2003. In December 2006, the vision statement developed by PAC led to the Master Plan Update project, with work continuing through May 2008. The update was developed under the direction of the University Planner's Office, with input from the North Campus Planning Committee, the Division of Student Affairs, the Department of Recreational Sports, and other campus constituencies. Sasaki Associates was also commissioned to assist in the plan's development. The consultation process included regular reviews with senior administration and members of the campus community, including student groups. The process was also coordinated with and considerate of other concurrent planning efforts under development by the City of Ann Arbor and other local public agencies.



Student activity in the North Campus Core

North Campus Vision: 2005-2025

In 2005, PAC worked to record its observations and recommendations in a report entitled "North Campus Vision 2005-2025." The report is based on a review of past planning efforts for North Campus, interviews with North Campus constituencies, and the broad observations of PAC members. The North Campus Vision document identified several primary opportunities and challenges for North Campus and provided key principles for guiding future actions. A summary of the opportunities, challenges, and principles are as follows:

1. Achieve a Better Overall Balance of Land Use. North Campus currently is lacking in the desired social, retail, and service amenities. A wider range of cultural, recreational, retail, housing, and social amenities along with services should be provided to create a more vibrant destination.
2. Plan for Growth Through Defined Development Patterns and Expansion Priorities. The North Campus academic core lacks the pedestrian scale, intimate outdoor spaces, rich architectural detail, density, and history of the Central Campus core to which it is compared by the campus community. Infill development should be encouraged to promote higher density and compact development, to concentrate academic and support units, and to distinguish the North Campus core from surrounding areas.
3. Maintain and Enhance the Natural Environment and Open Spaces. The natural environment is an asset that helps form the image and identity of North Campus and should be retained as density within the core and other areas is increased. The significant open spaces of North Campus, such as the central quad, the Moore Building Pond, the entrance parkway, selected wooded areas, and important natural features, should be respected.
4. Improve and Enhance Transportation, Circulation, and Parking. The physical and psychological distance between the North, Central, and Medical Campuses results in a sense of isolation for North Campus users that must be resolved through enhanced connectivity (transit, pedestrian, bicycle, and vehicular) and a greater and richer mix of land uses that reduce the need for trips between campuses. Pedestrian, bicycle, and transit connectivity should be improved within North Campus and between other campuses and carefully sited parking decks should be provided to address demand.

In connection with updating the master plan, PAC was also charged with developing a vision statement for North Campus, which has informed and guided the development of the North Campus Master Plan Update:

North Campus Vision Statement

North Campus is envisioned as an increasingly dynamic, diverse and vibrant hub of human learning, creativity and activity, including a variety of academic and research units. It is an integral part of the University and the community in Ann Arbor. In order to enhance and increase this sense of vitality and community, it is important to augment the lively and rich mix of uses – research, academic/instruction, housing, recreation—with additional amenities such as cultural venues and retail services. Facilities and collateral activities aligned with the academic mission will help recruit, retain, and draw more students, faculty, and staff to North Campus, thereby increasing the density, quality, and diversity of uses and destinations.

Physical linkages between campuses must be improved, including an enhanced transportation system, with buses, biking, walking, and possibly other types of transit. Parking should be more conveniently located, with as much as possible accommodated in structures to reduce surface parking. In order to best utilize the remaining land resources, the campus core must be more compact and walkable, with a denser array of generally taller buildings with smaller footprints. Future disposition of land should be approached cautiously, with an eye toward reserving appropriate sites for future unknown institutional needs and aspirations.

Sensitive landscaping and environmental stewardship, including the preservation and management of natural resources, open spaces, and woodlands, will help maintain and enhance the distinctive image and special qualities of North Campus.

*North Campus Vision 2005-2025
Planning Advisory Committee, August 31, 2005*

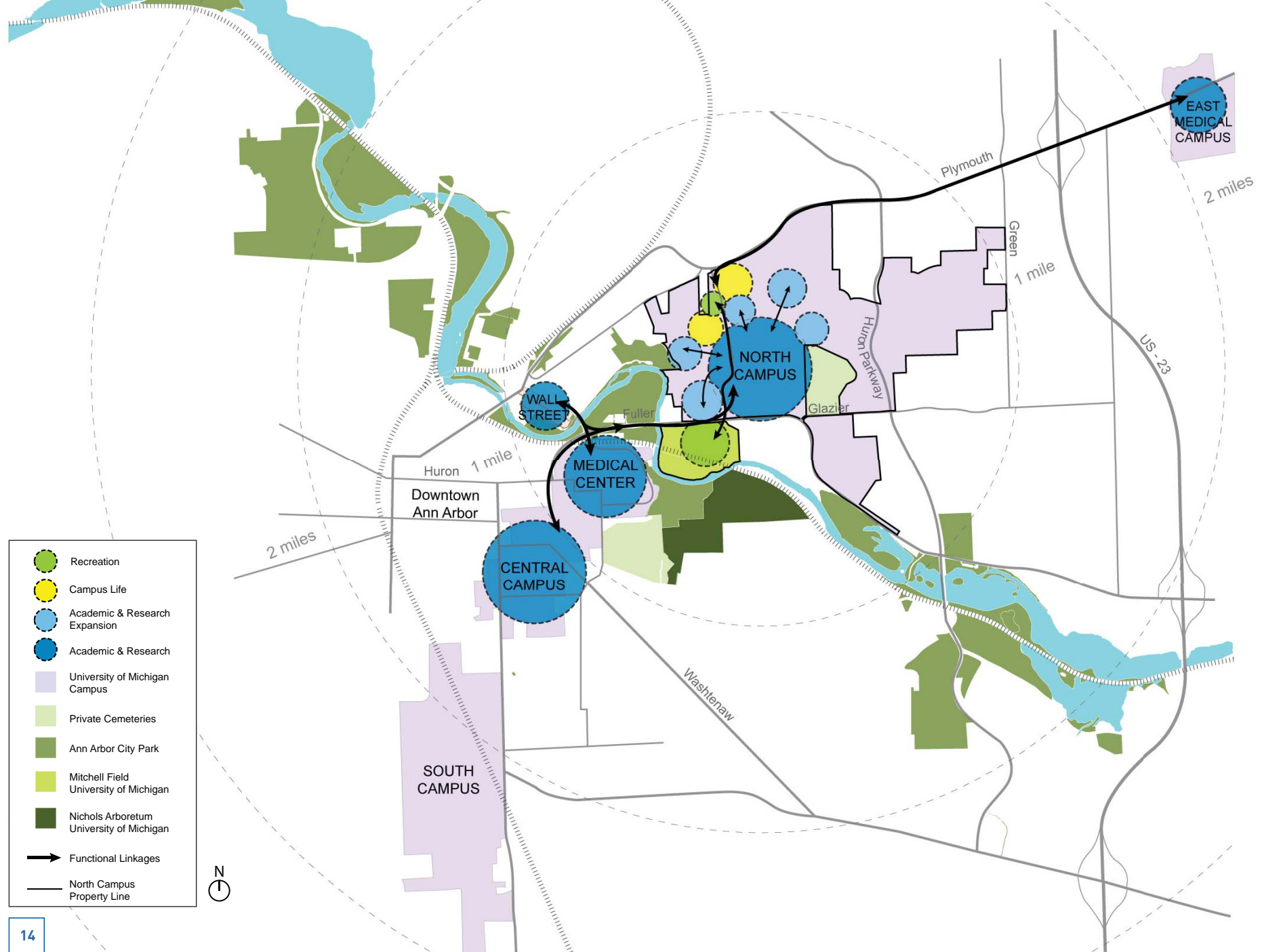




2.0 Context and Connectivity

FUNCTIONAL LINKAGES (Existing and Proposed)

Figure 3



2.0 Context and Connectivity

The Master Plan Update (Plan) places significant emphasis on opportunities to improve the connectivity of North Campus with the surrounding community and to the Central, Medical, and East Medical Campuses. The functional, physical, and psychological connections to and within North Campus are an important focus of the Plan.

Functional Connectivity [Figure 3]

The Plan reinforces the fundamental concept that the University of Michigan is one university with five interdependent campuses in Ann Arbor. Connectivity, at the functional level, is achieved by locating activities, programs, services, and classes of university-wide interest on North Campus. It is also achieved through placement of cultural destinations such as the Walgreen Drama Center, residential facilities, and programatically rich support facilities such as the Duderstadt Center. The Huron River Valley and the recreational amenities, such as Mitchell Field and Nichols Arboretum, are viewed as functional and physical linkages which assist in connecting North Campus to the Medical Center and Central Campus. The Plan reinforces the research connections between North Campus and the Medical Center, including the Wall Street district and East Medical Campus, and recommends enhanced transit linkages to facilitate collaboration between researchers on each campus.

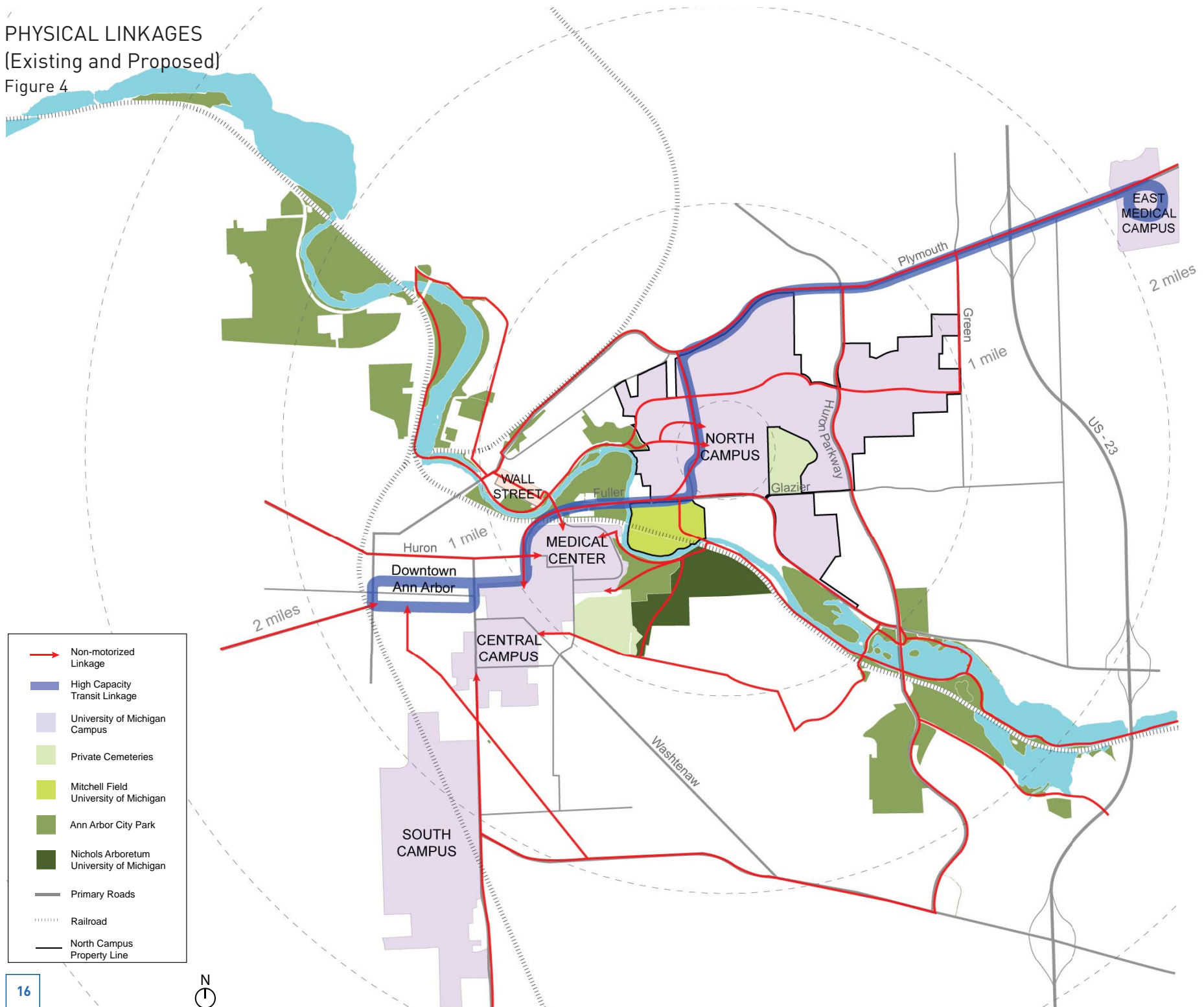
The opportunity to improve psychological connectivity is also considered along Fuller Road where new functional use areas are proposed on University property. The functional use areas provide opportunities for major programmatic uses along Fuller Road thereby enhancing the public image and presence of North Campus and providing a stronger sense of visual and functional connection with the Medical Center.

Physical Connectivity [Figure 4]

Improvements to the pedestrian, bicycle, and transit connections are proposed to more effectively link North Campus to the other campuses, and the surrounding community. The Plan emphasizes transit and non-motorized movement over single occupancy vehicles. Physical connectivity is addressed at two levels: 1) internal connectivity between the sub-campus areas; and 2) external connectivity to the other campuses, and to the surrounding community, including Plymouth Road, Northeast Ann Arbor, East Medical Campus, the Wall Street district, and areas to the east and west of North Campus. Accordingly, opportunities for better internal connections are identified to link the established core to surrounding sub-campus areas and for connecting North Campus pedestrian and bicycle routes with those of Nichols Arboretum and the city park system along the Huron River.

While pedestrian and bicycle connections are important, transit is viewed as the most critical factor in improving the physical connectivity between the campuses. The Plan concentrates transit routes between the Central, Medical, North, and East Medical Campuses along a potential high capacity transit corridor under study by the City of Ann Arbor, the Ann Arbor Transportation Authority, the Downtown Development Authority, and the University of Michigan. The corridor could potentially connect Central Campus and the Medical Center to North Campus via Fuller Road, extending northward along Bonisteel Boulevard and Murfin Avenue, and continuing to the East Medical Campus via Plymouth Road. The aim is to strengthen existing bus transit while reserving a corridor for potential alternative transit services. To facilitate and enhance transit connections, transit centers are proposed to provide user amenities which are envisioned to include enclosed, heated shelters and digital information on transit services. In some locations, food and retail services may be considered.

PHYSICAL LINKAGES
 (Existing and Proposed)
 Figure 4



Psychological Connectivity – Huron River Valley

The Huron River Valley is both an ecological and recreational corridor linking the University's campuses with the greater community. The Plan reinforces the Huron River Valley corridor by linking University properties such as Mitchell Field, Nichols Arboretum, and the Wall Street district, with the open spaces of the Huron River, including Fuller Park, Cedar Bend Nature Area, Riverside Park, Furstenberg Nature Area, the Arboretum Nature Area, and Gallup Park. The goal is to create a unified open space system along the Huron River Valley corridor, by connecting University and public land by means of pedestrian and bicycle routes. Beyond physical connectivity, the intent is to create a stronger sense of place on North Campus by incorporating the positive qualities of the Huron River Valley landscape.



Huron River at Nichols Arboretum



Huron River at Nichols Arboretum





3.0 Planning Background



View southwest with North Campus in the foreground, the Medical Center and Central Campus in the background, and the Wall Street district to the right

3.0 Planning Background

History of Planning on North Campus

Planning on North Campus began more than fifty years ago, with major plans completed in 1956 and 1984, and additional studies in the 1960s and the 1990s. North Campus was originally conceived as an expansion zone to accommodate the post World War II growth of the University; a pattern of growth characterized by a great influx of students, many with families, and a surge in engineering-related government-sponsored research. For the University this translated into a need for more and larger research facilities, as well as housing to accommodate students with families.

Planning for North Campus commenced in 1951 with the appointment of Eero Saarinen and Associates to develop a master plan. From the outset the vision was to create a new campus with a full range of uses including academic and research facilities, a central library, residence halls and family housing, and a fine arts area. The 1956 plan, the last of many developed by Saarinen, established the broader functional use pattern evident today, including a central area of engineering facilities, the fine arts or music area west of Murfin Avenue, research uses in the southeast corner at the Beal-Fuller intersection, and the Northwood, Bursley, and Baits residential areas north of Hubbard Road and west of Murfin Avenue. It also defined much of the current roadway network.



1955 Saarinen Plan

In the 1960s a series of planning studies considered the future of North Campus in terms of design and integration with Central Campus and other locations of University of Michigan activity. The studies examined North Campus in the context of the Huron River Valley, the emerging land uses surrounding the campus, and the concurrent planning underway by the City of Ann Arbor. By the 1980s, North Campus had achieved a critical mass of engineering and other academic facilities, the relocation of whole schools and colleges, and support facilities such as libraries. In general, the development was implemented in accordance with the 1956 plan; however, the pattern of development evolved in a less architecturally defined manner and with more emphasis on automobile circulation. The 1984 North Campus Planning Study provided a finer level of planning and design detail in the central academic core. Significantly, it introduced the idea of a central open space defined by surrounding architecture, a clear departure from 1956 plan, which organized buildings around a series of courtyards. The 1984 plan placed emphasis on the setting and sought to preserve these natural qualities.

In the 1990s a number of planning studies were undertaken for North Campus. These studies examined transportation and the natural environment, the role of North Campus in the context of the other campuses, and provided recommendations for improving identity, creating a sense of place, maintaining ecological integrity, and providing a context for future planning.

Common Planning Themes

In reviewing the planning efforts undertaken on North Campus over the past fifty-six years, several common themes are noted, all of which have informed the development of the current update:

- All plans demonstrate, in varying degrees, a respect for the natural environment;
- All plans call for increased density in the campus core; and
- All plans emphasize flexibility in order to accommodate future programmatic requirements



1964 North Campus Aerial Photo

Historic Status of North Campus and its Buildings

As North Campus has passed its fiftieth year of development, the campus itself as well as several of the original buildings are transitioning to historic status. This will require special consideration relative to the future uses, renovations, or potential demolition. Buildings transitioning to historic status include the Cooley Building, the Michigan Memorial Phoenix Project, the Lay Automotive Laboratory, the G. G. Brown Laboratories, and the Moore Building.



Moore Building (built in 1964)



Cooley Building (built in 1953)





4.0 Physical Systems Planning

OPEN SPACE FRAMEWORK

Figure 5



- NC Pedestrian Corridor
- Northwoods Recreation Trail
- Regional Path
- NC Streetscapes
- Stream
- University of Michigan Property Line
- S Stormwater Detention Opportunities
- University of Michigan Plaza
- University of Michigan Recreation Area
- University of Michigan Campus Green Space
- Ann Arbor Municipal Recreation Area
- Huron River Valley Woodland Area
- Water Body



4.0 Physical Systems Planning

The capacity of North Campus to accommodate future growth is guided by four physical system plans and related principles: 1) open space; 2) functional use; 3) circulation; and 4) utilities and infrastructure. The principles associated with each system plan are adapted from the North Campus Vision 2005-2025. The systems plans and principles collectively guide the enhancement of the character, image and sense of place, and improve the connections between each of the sub-campus areas on North Campus.

Open Space Framework

The frameworks of open space and circulation collectively define the future development zones on North Campus. The Open Space Framework (Figure 5) contributes to the broad ecological landscape within a larger context of the Huron River Valley and the associated woodland cover, as well as at the smaller scale of North Campus.

Principles

The open space framework is based on the following principles:

- Respect and incorporate important natural features and existing open spaces into the built environment
- Organize new development to strengthen and reinforce significant open spaces
- Strengthen open space connections to improve continuity between open space areas
- Enhance and define campus edges and promote natural buffer zones adjacent to perimeter properties where appropriate
- Create people-scale spaces that encourage social, recreational, and cultural opportunities

The Open Space Framework acknowledges and addresses the following

aspects of the Huron River Valley:

The Huron River Valley Corridor

The Huron River Valley is an ecological, recreational, and contemplative amenity connecting North Campus to the Medical Center, to surrounding wooded areas such as Nichols Arboretum, and to the community by means of University-owned parcels such as Mitchell Field. The proposed open space framework considers land along the Huron River Corridor as part of a complete and unified system.

North Campus Woodlands – the significance within the Huron River Valley

The open spaces of North Campus are linked to the system of forested land extending along the Huron River Valley. North Campus woodlands form a bridge or link in the system with the highest value woodland located in the Glazier Way area.

Considered as a whole, North Campus woodlands make a positive ecological contribution to both North Campus and the surrounding community. Within the Huron River Valley, the woodlands contribute to water quality, mitigate stormwater flows to the river, and form a habitat corridor along the Huron River and Millers Creek. At the campus scale, the existing woodlands lend North Campus its distinctive landscape character, and provide environmental benefits in terms of stormwater management, air quality, and noise abatement.



Mitchell Field with North Campus in background

North Campus Open Space Framework Components [Figure 5]

The Open Space Framework for North Campus builds on the existing network of woodlands, the Huron River Valley open space system, and managed landscapes of North Campus. Linkages are proposed between each of these areas to form a complete open space framework coordinated with the circulation systems and framed by development. The framework components are:

- The Huron River Valley – the Open Space Framework extends landscape corridors and pedestrian / bicycle connections outward from the campus core to connect with the existing parks, trails and woodland systems of the Huron River Valley
- Recreation areas – the existing recreation facilities at Mitchell Field, and facilities in the future “Northwoods” area, complement the park system, trails and woodlands along the Huron River
- Existing woodlands – the framework incorporates existing major contiguous woodlands throughout North Campus, acknowledging the connectivity they provide within the Huron River Valley
- Circulation corridors – the streets and pedestrian pathways of North Campus serve as landscape links between the open spaces of the campus and the Huron River Valley context
- Established North Campus green spaces – the existing central open space of North Campus, the central stormwater detention basins, and portions of the wooded areas along Plymouth Road, are enhanced by additional tree planting and landscape improvements
- Outdoor Campus Gathering Spaces – a new plaza is proposed at the Murfin-Duffield intersection to bring activity to the Murfin corridor and facilitate pedestrian movement from the west and the “Northwoods Village” Areas into the Central Core Area. New plazas will be introduced in areas outside of the Central Core Area in association with future development as appropriate
- Stormwater Management – the Open Space Framework includes a series of regional detention and retention ponds throughout North Campus. Ponds are proposed at several locations and are designed to create landscape amenities while serving functional needs, including consideration of Millers Creek



The Wave Field



Moore Building Pond



Lurie Reflecting Pool Plaza

Before



The existing woodlot between Hayward Street and Hubbard Road before selective clearing began

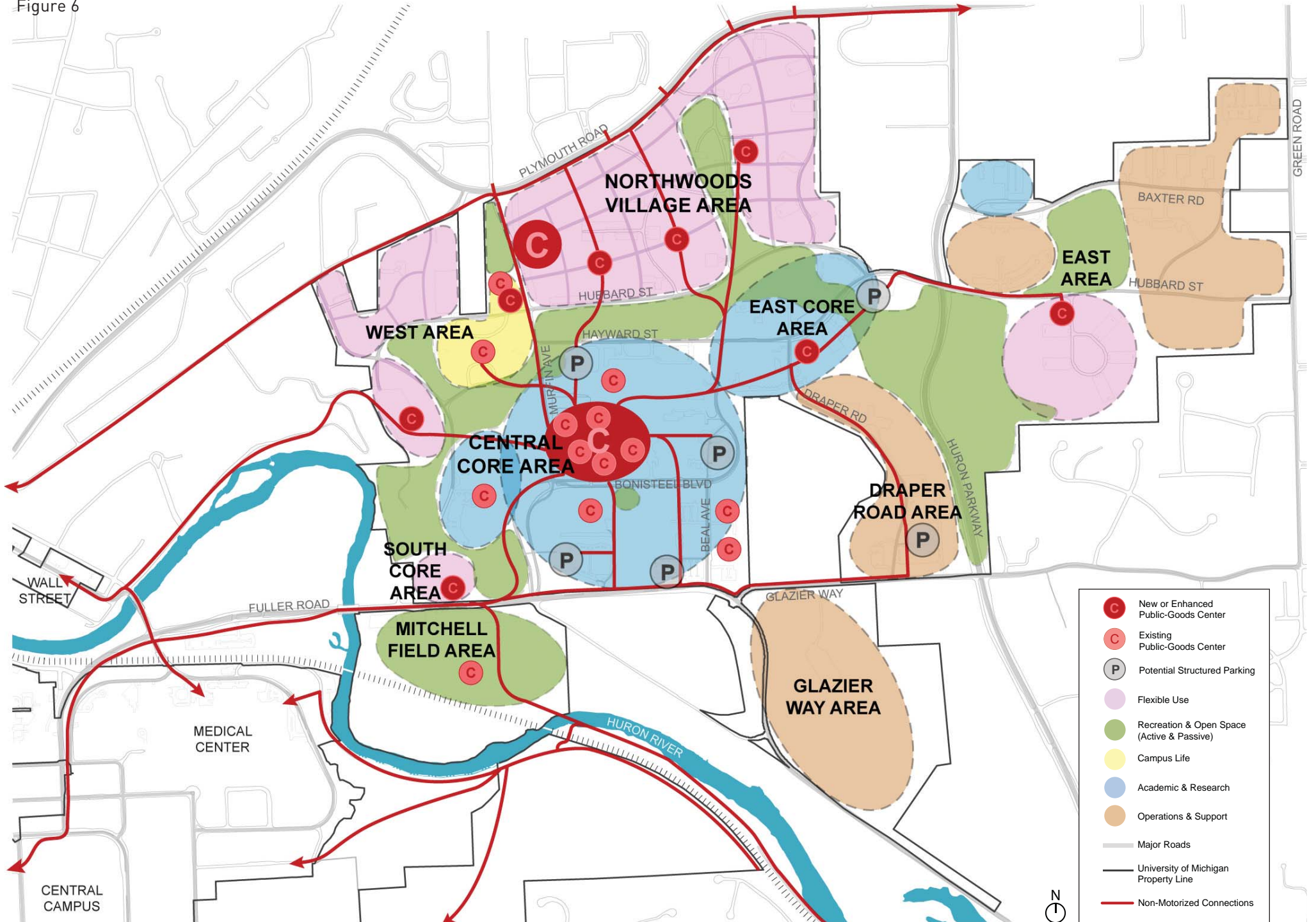
After



Proposed selective understory clearing in the Northwoods between Hayward and Hubbard Streets to increase transparency and visual/functional connectivity, and to improve woodland health

FUNCTIONAL USE FRAMEWORK

Figure 6



Functional Use Framework

The Functional Use Framework (Figure 6) defines nine sub-campus areas for future development on North Campus within the context of the existing development patterns, geographic features, and the open space and circulation frameworks. The general uses proposed for each of the areas include: 1) academic and research; 2) campus life; 3) flexible use; 4) active and passive recreation; and 5) operations and support.

The framework provides guidance for the incremental redevelopment of North Campus land uses. It concentrates academic and research facilities in and around an expanded Central Core Area, locates operations and support functions to the southeast and eastern edges, retains Bursley Hall and the North Campus Recreation Building, maintains the Mitchell Field Area for recreation, and designates the northern and far western areas for flexible integrated uses such as academic, research, housing, mixed use, clinical care, commercial, public goods, etc. The most significant changes to the existing layout of functional uses include the future potential redevelopment of the Northwood housing areas (Northwood I-V) and the Baits housing area.

The Functional Use Framework also includes public goods centers, which provide opportunities for social interaction around a variety of services and amenities. The public goods centers, depending on location, may include food services, retail and commercial amenities, multi-functional libraries, and performance/entertainment/cultural venues. The public goods centers are connected via the pedestrian network and the transit system. An existing concentrated area of public goods at the Pierpont Commons and the Duderstadt Center is proposed to be enhanced with the aim of establishing a center for campus and public life. As redevelopment occurs in other functional use areas, a series of sub-centers are proposed to provide services and community gathering nodes in each area. Potential locations are also identified in the plan to distribute structured parking among the functional use areas.

Principles

The Functional Use Framework is based on the following principles:

- Increase campus density
- Plan for flexibility and unknown future needs
- Utilize remaining developable land efficiently
- Concentrate academic, research, and public goods functions in the Core Area, but also develop secondary centers throughout North Campus to serve the local population of each sub-campus area
- Increase the diversity of uses (cultural, retail, recreation, social, student services, etc.) on North Campus, and provide functions that add 24/7 life to the campus (classrooms, housing, student commons / libraries, social destinations, services, etc.)
- Improve the relationships among uses to foster a livelier campus environment

Circulation Framework

The Circulation Framework provides a comprehensive and unified system of pedestrian, bicycle, transit, and vehicular connections within North Campus and to areas beyond. The framework places priority on pedestrian, bicycle, and transit connectivity as part of an overall strategy to decrease the reliance on single occupancy vehicle transportation and mitigate the demand for parking. Within the North Campus context, the intent is to improve and enhance the comfort, convenience, and safety of the pedestrian and bicycle networks. A series of transit centers and enhanced bus stops are proposed to facilitate the transfer from the pedestrian realm to the transit system, the primary means by which faculty, staff, and students will connect with Central Campus, the Medical Center including the Wall Street district, and East Medical Campus. The transit centers will serve as the gateways into and out of North Campus for daily users and residents.



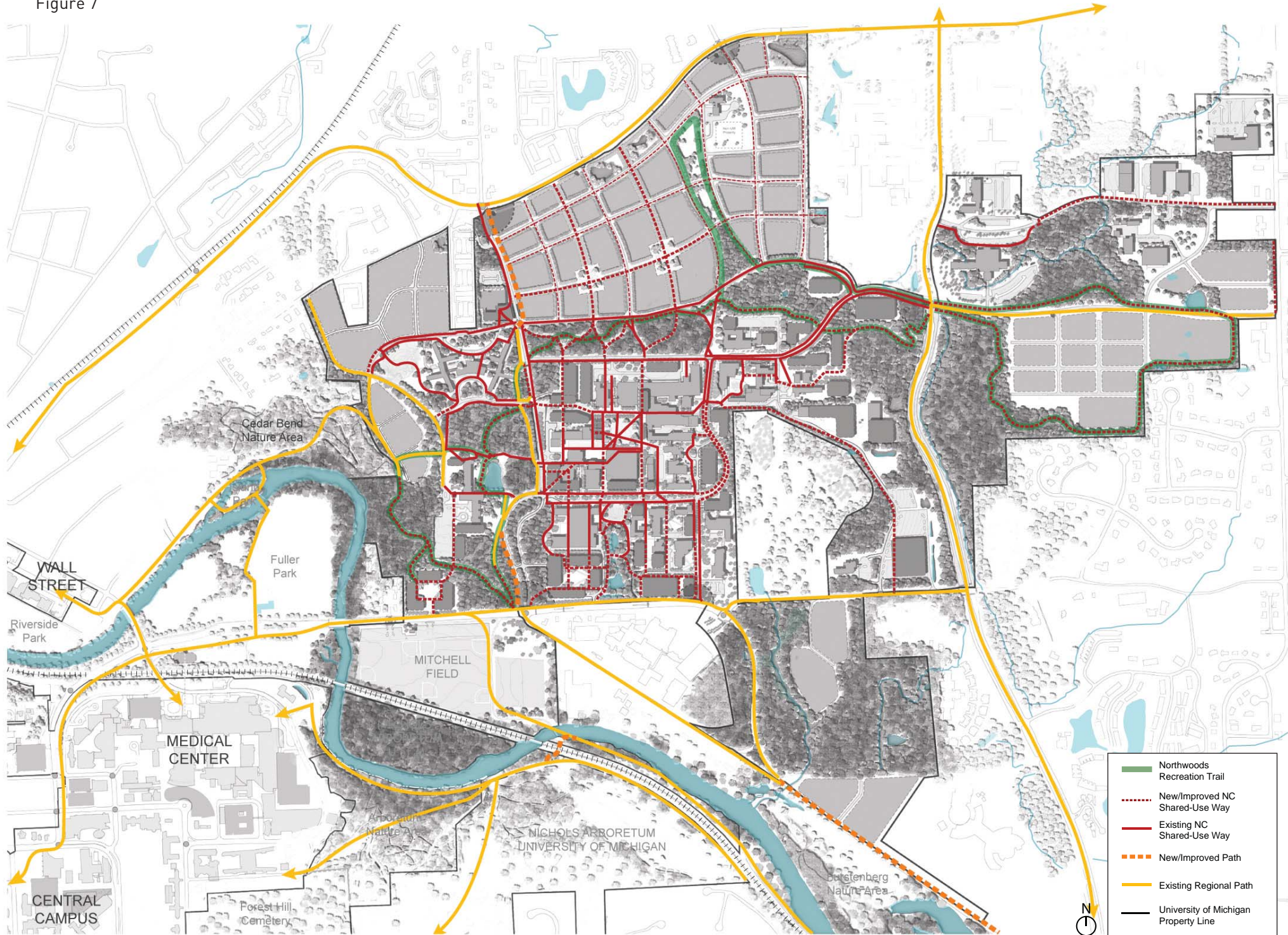
Circulation through the North Campus Central Open Space



Pedestrian circulation along Duffield Street

PEDESTRIAN & BICYCLE FRAMEWORK

Figure 7



Circulation Principles

The Circulation Framework is based on the following principles:

- Promote an integrated approach to campus mobility with emphasis on the pedestrian, bicycle, and transit circulation networks
- Introduce traffic calming measures to favor pedestrian movement over vehicular movement
- Improve transit and bicycle connections between North Campus and the other campuses, commercial districts, and the community at large
- Reduce the need for parking through travel choices
- Introduce parking structures on the perimeter of the Central Core Area to more efficiently utilize remaining land resources
- Enhance campus gateways to improve campus identity and sense of arrival
- Preserve an alignment and sufficient space on Murfin Avenue and Bonisteel Boulevard for a potential future high capacity transit corridor

Pedestrian Circulation [Figure 7]

The proposed network of pedestrian pathways connects existing sidewalks and regional paths with new pedestrian routes to create a comprehensive system. Emphasis is given to pedestrian experience, convenience, and safety. Traffic calming features are proposed at points where the pedestrian routes cross major roadways such as Murfin Avenue. The framework designates the Central Core Area as a pedestrian zone and gives priority to pedestrian movement throughout North Campus. Major pedestrian circulation recommendations include:

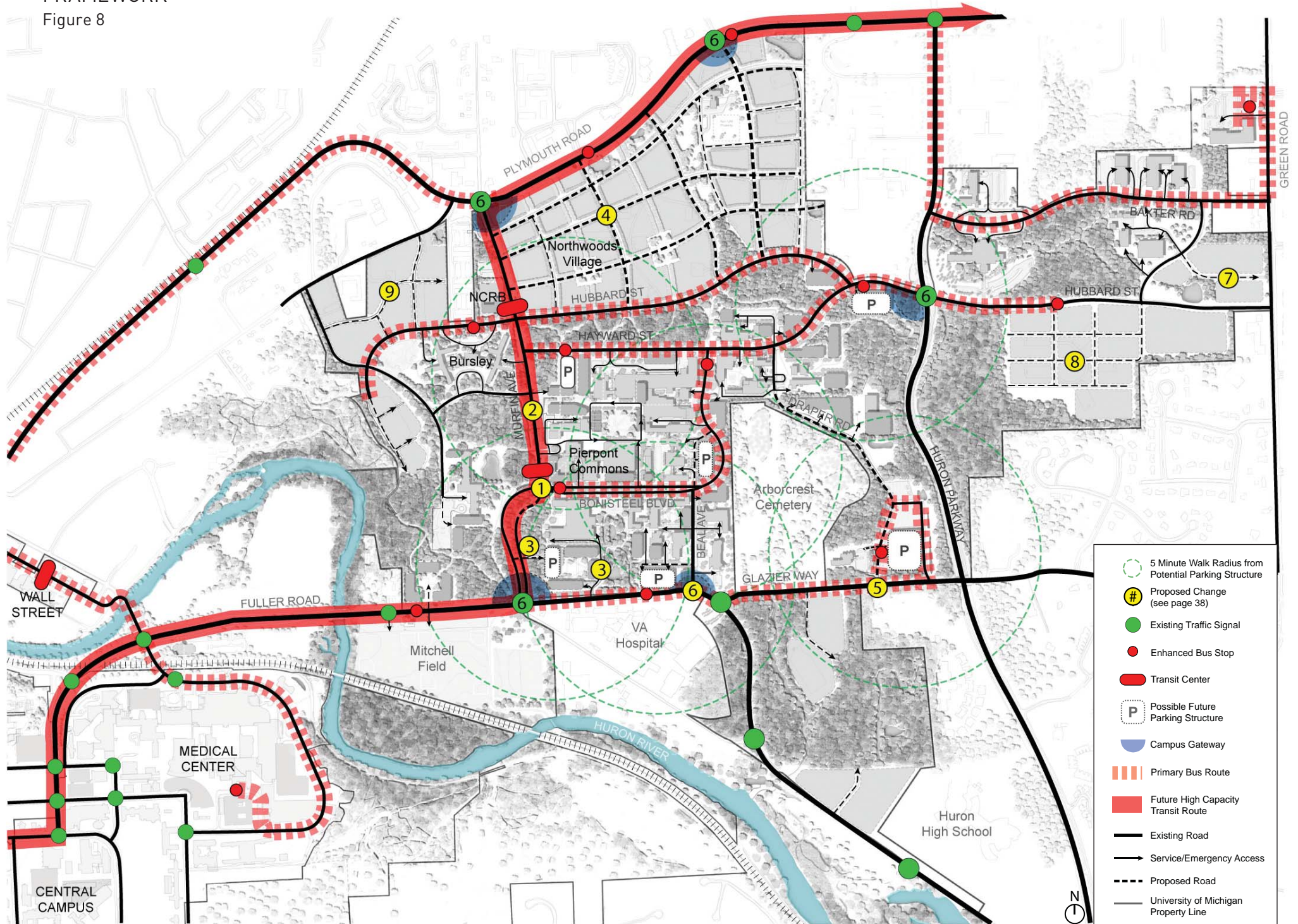
- Provide new pathways through the woodland located between Hayward Street and Hubbard Road to connect the Core Area with the proposed redevelopment of the Northwood housing areas and the North Campus Recreation Building
- Establish new pathways throughout North Campus woodlands to expand recreational opportunities and to transcend steep slopes associated with many of the woodlots
- Improve the pedestrian experience by the creation of more nodes along the Murfin Avenue corridor to facilitate movement between the Central Core Area, the proposed “Northwoods Village,” and Plymouth Road. Connect the shared use regional walking paths and bikeways to Plymouth Road
- Coordinate future pedestrian routes with the potential pedestrian tunnel under the railway as proposed by the City of Ann Arbor to connect Mitchell Field with Nichols Arboretum

Bicycle Circulation [Figure 7]

The bicycle circulation system combines on-street shared use bicycle and vehicular routes with existing pathways. The system covers the entire North Campus and provides connections to the Central and Medical Campuses via Fuller Road and via paths through Nichols Arboretum. Opportunities for bike parking facilities should be sought throughout North Campus, including potentially in parking structures.

TRANSPORTATION FRAMEWORK

Figure 8



- 5 Minute Walk Radius from Potential Parking Structure
- Proposed Change (see page 38)
- Existing Traffic Signal
- Enhanced Bus Stop
- Transit Center
- Possible Future Parking Structure
- Campus Gateway
- Primary Bus Route
- Future High Capacity Transit Route
- Existing Road
- Service/Emergency Access
- Proposed Road
- University of Michigan Property Line

Transportation System [Figure 8]

The University transit system serves as the primary means of linking the University of Michigan campuses. The Circulation Framework for North Campus emphasizes the importance of the system relative to the day-to-day operation of the entire University; it examines strategies for improving the existing bus system; and looks ahead to accommodate additional transit services.

The Circulation Framework incorporates a potential high capacity transit corridor under study along Fuller Road and considers how the improvements to the corridor could be phased over time. The features of the transit framework include:

- High Capacity Transit Route – the Bonisteel Boulevard entry drive and Murfin Avenue corridors are reserved for future flexibility as a segment of a possible high capacity transit route in the framework, which would connect to potential high capacity transit routes on Plymouth and Fuller Roads. The route initially is intended to support improved bus service and over time additional transit services
- Primary Bus Routes – the existing system of primary University and City bus routes will continue to serve North Campus and will be expanded as development warrants. There is potential for a shuttle bus that would loop around within North Campus, making intra-campus movement faster and easier. In the future, the bus system may provide connections to points beyond those served on the Bonisteel / Murfin corridor by the potential high capacity transit route
- Transit Facilities – two types of transit facilities are proposed to improve convenience and comfort:
 - Transit centers are located at major transfer points along the potential high capacity route. The centers could include passenger amenities such as heated shelters, electronic bus information and schedules, seating, and retail services. Transit centers are proposed at the Pierpont Commons, within the Medical Center, and on Central Campus. As the potential high capacity route is extended as density evolves, an additional transit center is proposed on Murfin Avenue near the North Campus Recreation Building
 - Enhanced bus stops are located on the primary bus routes and may feature shelters and bus information, but would not likely offer enhanced amenities. Enhanced bus stops are proposed at Bursley Hall, at the Hayward Street Parking Structure, at Beal Avenue near the G. G. Brown Building, on Fuller Road across from the Veterans' Administration Hospital, and along Plymouth Road serving the future "Northwoods Village" Area. Additional enhanced bus stops are proposed for the commuter lots at Glazier/Draper, Mitchell Field, and Green Road



Existing Bonisteel - Murfin intersection, view north



Proposed Re-aligned Bonisteel - Murfin intersection, view north

Vehicular Circulation [Figure 8]

The proposed vehicular circulation system incorporates the existing general network of streets with the exception of those in the Northwood areas and encourages improvements in areas with existing challenges:

1. Murfin-Bonisteel intersection – a reconfiguration is proposed to resolve the existing awkward turning movements and flow patterns resulting from left turns from Bonisteel Boulevard to northbound Murfin Avenue. Traffic calming features are proposed to facilitate pedestrian movement east to west at the Pierpont Commons, Duffield Street, and Hayward Street.
2. Murfin Avenue – to address the multiple modes of movements on Murfin Avenue, and its possible future designation as a high capacity transit route, the street section may be enhanced to resolve pedestrian/vehicular conflicts and accommodate transit. Proposed improvements include: 1) traffic calming features at major pedestrian crossing points; 2) bike lanes as opportunities allow; and 3) a transit center near the Pierpont Commons.
3. New roads south of Bonisteel Boulevard – To facilitate access to potential future parking structures, two new roadways may be considered south of Bonisteel Boulevard: 1) a new road extending west from Beal Avenue south of the Lurie Biomedical Engineering Building; and 2) a new road extending east from the north/south segment of Bonisteel Boulevard. Further assessment of these potential roadways is required.
4. Northwoods street network – over the long term, the Plan sets out a strategy for redevelopment of the current Northwood housing areas. The intent is to provide a finer grain of streets in the proposed flexible use district, depending on future uses.
5. Draper Road extension – Draper Road is proposed to extend south to connect with Glazier Way to provide better access to an enhanced University service area and commuter parking facilities.
6. Campus gateways - gateway enhancements are proposed as follows: Bonisteel Boulevard at Fuller Road; Beal Avenue at Fuller Road; Murfin Avenue at Plymouth Road; a new north/south road connecting Hubbard Road with Plymouth Road; and Hayward Street at Huron Parkway. Signage and landscape improvements are encouraged to create a stronger campus identity and sense of arrival at each gateway.
7. Potential new access road serving development of the East Area, north of Hubbard Road and east of Dean Road.
8. New finer-grained street network serving the future redevelopment of Northwood V.
9. New access roads serving the future redevelopment of the West Area.

Parking

The parking strategy for North Campus is to reduce demand by encouraging more non-motorized movement and greater use of the transit system. Future parking will be provided in a combination of surface lots and structures as development increases. In the established core, parking structure development zones are identified at the periphery of the pedestrian priority area and serve a five to ten minute walking radius. Potential areas include: the Hayward-Murfin intersection; Beal Avenue east of the Lurie Engineering Center; the Hayward-Hubbard intersection; south of the Art and Architecture Building; south of the Lurie Biomedical Engineering Building; and the Draper Road commuter lot.

Emergency and Service Access

Emergency and service access is to be provided throughout North Campus, with access to all facilities, as needed.

Utilities and Infrastructure Framework

Development of North Campus will need to take into consideration the distribution network and capacity of existing utilities and infrastructure. The proposed utilities and infrastructure framework is based on the following planning principles and priorities:

Principles

- Plan comprehensive utility and infrastructure systems
- Develop compact functional use areas to maximize the efficiency of infrastructure / utility systems
- Establish clearly defined utility corridors coordinated with the proposed development patterns
- Identify locations for future plant facilities within North Campus ensuring that adequate expansion space is provided. New plant facilities, such as potential co-generation or chiller plants, may be needed in future development areas to supplement existing facilities.



North Campus Detention Basin

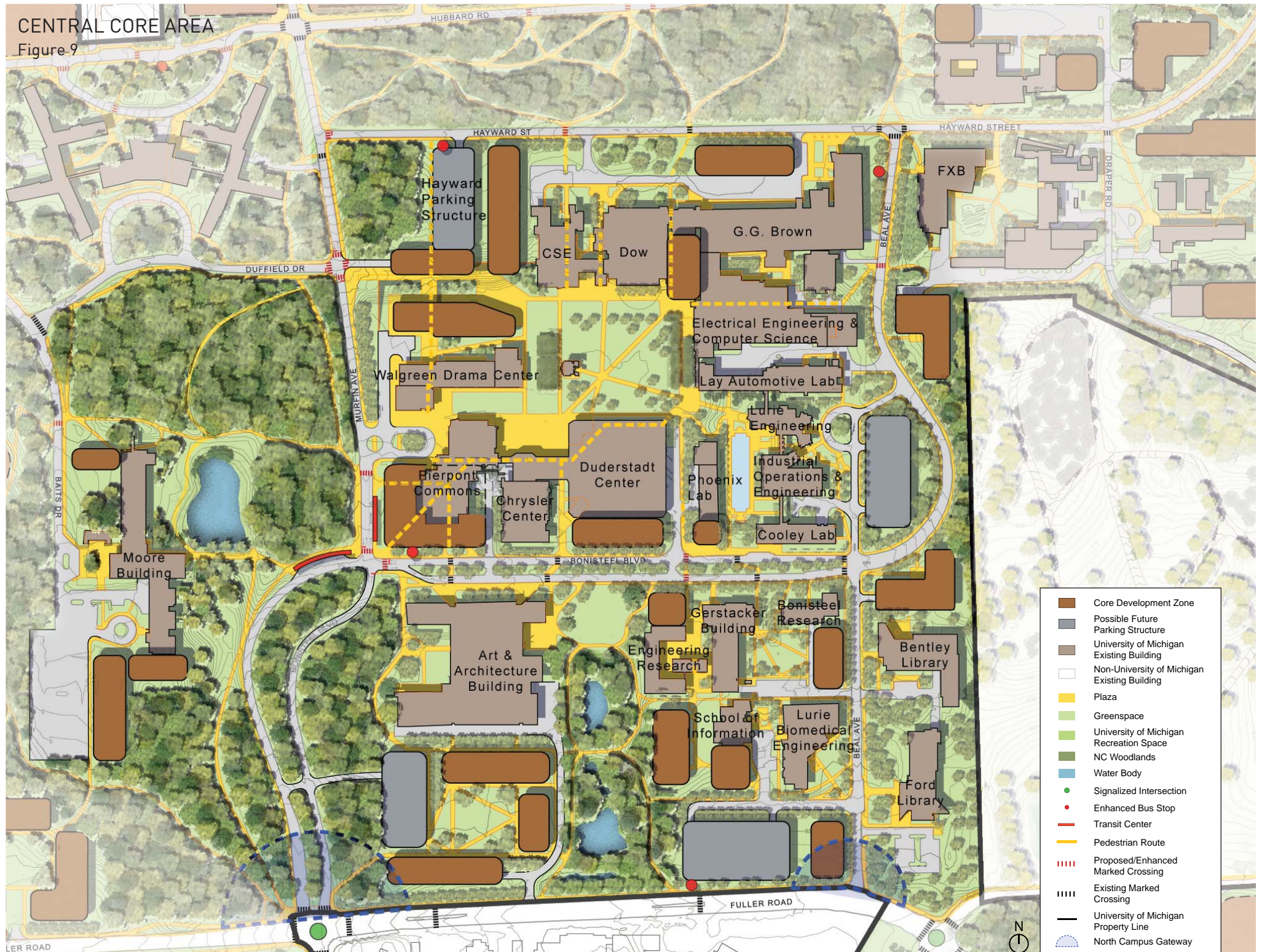




5.0 Sub-Campus Area Plans

CENTRAL CORE AREA

Figure 9



- Core Development Zone
- Possible Future Parking Structure
- University of Michigan Existing Building
- Non-University of Michigan Existing Building
- Plaza
- Greenspace
- University of Michigan Recreation Space
- NC Woodlands
- Water Body
- Signalized Intersection
- Enhanced Bus Stop
- Transit Center
- Pedestrian Route
- Proposed/Enhanced Marked Crossing
- Existing Marked Crossing
- University of Michigan Property Line
- North Campus Gateway



5.0 Sub-Campus Area Plans

The Functional Use Framework established in the Master Plan defines nine sub-campus areas for future development on North Campus, areas connected by the framework plan systems into one united campus. A description of the planning intent for each of the sub-campus areas is provided in this section. The following descriptions address development opportunities, functional uses, landscape improvements, public goods center locations, character and circulation within each of these areas, as well as the relationships of each area within its context.

Central Core Area

The Central Core Area of North Campus encompasses the established academic and research facilities extending from Hayward Street on the north to Fuller Road on the south, and from the privately-owned Arborcrest Cemetery on the east to Baits Drive on the west. The Central Core Area includes the primary facilities for the colleges and schools represented on North Campus.

The Central Core Area provides several opportunities for strategically located infill development to primarily serve the emerging academic, research, and public goods needs of the University. Infill opportunities will increase density and provide amenities that help foster a stronger sense of campus life and make the vibrancy of North Campus visible. The major infill opportunities are illustrated in figure 9, and four parking structure opportunity sites are also identified, to consolidate surface parking and provide for future demand.

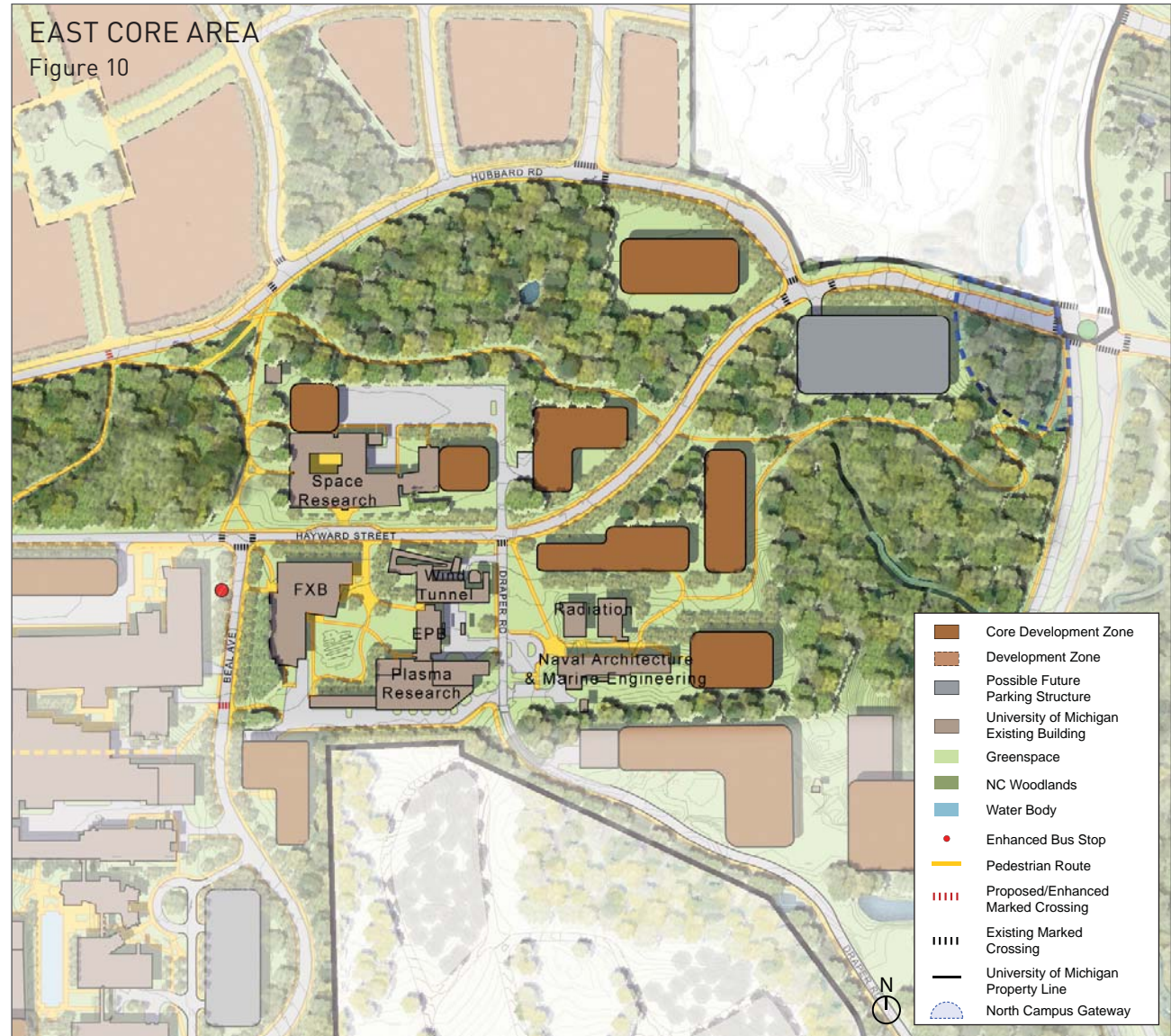
The Central Core Area is envisioned to remain the cultural and social hub of North Campus, defined by the “Grove,” the central open space and its associated lawn, walks, and trees. Visual connectivity is provided to surrounding outdoor gathering areas; new walkways provide direct connections along pedestrian desire lines. The Central Core Area is designated as the primary location for public goods to serve North Campus, including retail food services, and social amenities. The Walgreen Drama Center, Stamps Auditorium, and the Duderstadt Center house cultural and academic resources for the entire University population, an aspect of the core that will be enhanced and reinforced as opportunities arise. Adjacent to the “Grove,” the primary outdoor gathering area is defined by the Pierpont Commons, the Chrysler Center, and the Duderstadt Center. This area will serve as the “civic center” for North Campus; a space for special gatherings.

Pedestrian circulation and transit access are given priority in the Central Core Area through a well defined system of walkways coordinated with internal building circulation patterns. New pedestrian access routes from the perimeter roads into the “Grove” are provided. A transit center, located west of the Pierpont Commons, serves as the primary portal into and out of North Campus for daily users as well as for those traveling to North Campus to visit its cultural and academic facilities. Vehicular traffic, except for emergency and service vehicles, is limited to the perimeter roads of Mufin Avenue, Bonisteel Boulevard, Hayward Street, and Beal Avenue.

East Core Area

The East Core Area extends from Beal Avenue eastward along Hayward Street and encompasses several Engineering facilities and surface parking lots.

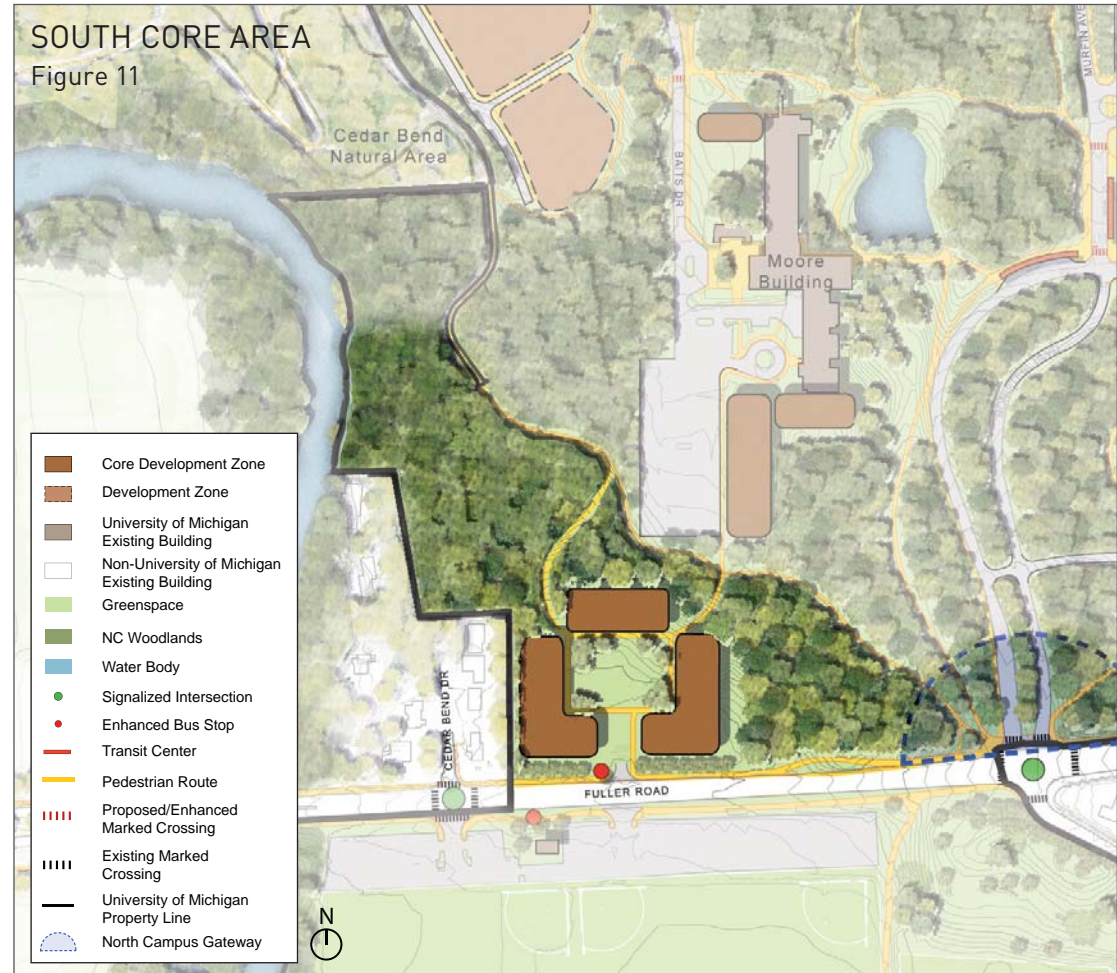
The East Core is envisioned as an extension of the academic and research uses in the Central Core Area; pedestrian linkages between the two would be enhanced. Future infill development is organized along the Hayward / Hubbard corridor providing additional capacity for academic and research space. A new center for public goods, possibly located in one of the development zones along Hayward Street, provides the amenities and services appropriate for the future population of the area. Reforestation is proposed for consideration to link wooded areas north of Hayward Street with those to the east along Huron Parkway. An enhanced bus stop is located on Beal Avenue just south of Hayward Street to serve the East Core Area. Future parking may be consolidated in a structure on the south side of Hayward Street at the Hubbard Road intersection.



South Core Area

The South Core Area is characterized by a natural setting of woodlands on Fuller Road west of Bonisteel Boulevard and southwest of the Moore Building. Currently undeveloped, the South Core Area provides a significant opportunity for a major new programmatic use along Fuller Road.

The South Core Area is envisioned for future uses requiring a prominent public location and which could operate independently of the uses in the Central Core Area, due to the steep topography between the two. The site demands a sensitive architectural expression given its position on Fuller Road. New pedestrian linkages could connect the site to the Moore Building if appropriate and natural areas to the north and west, and an enhanced bus stop would link it with the rest of the University.



“Northwoods Village” Area

The “Northwoods Village” Area extends from Plymouth Road on the north to Hubbard Road on the south and encompasses the low density housing area known as the Northwood Apartments I-IV.

The “Northwoods Village” Area is designated for comprehensive redevelopment in the Plan. The design intent is to create a more urban, high density, flexible pattern of development. The aim is to establish a flexible grid pattern to organize future circulation and development, depending on future uses. The open space network is envisioned to include quad-like open spaces, well landscaped streets, stormwater detention, wooded areas, and active and passive recreation spaces as appropriate.

The plan for the “Northwoods Village” area assumes the long term replacement of the Northwood Apartments. The area is envisioned as a second North Campus center that will complement the Central Core Area, and offers opportunities for academic, research, residential, clinical care, mixed use, recreation, public goods, and possible commercial and retail uses. Academic and research facilities are proposed for consideration along the south edge of the area, in reasonably close proximity to the Central Core Area.

Pedestrian connections between the existing core and the “Northwoods Village” will be enhanced via new walkways through the woodland located between Hubbard Road and Hayward Street. New sidewalks will also extend up Murfin Avenue from the Central Core Area to Plymouth Road. Circulation within the “Northwoods Village” Area will be organized in a grid pattern to provide a finer grain of access and allow for flexible redevelopment. Connections along the community edge to the north side of Plymouth Road would also be enhanced.

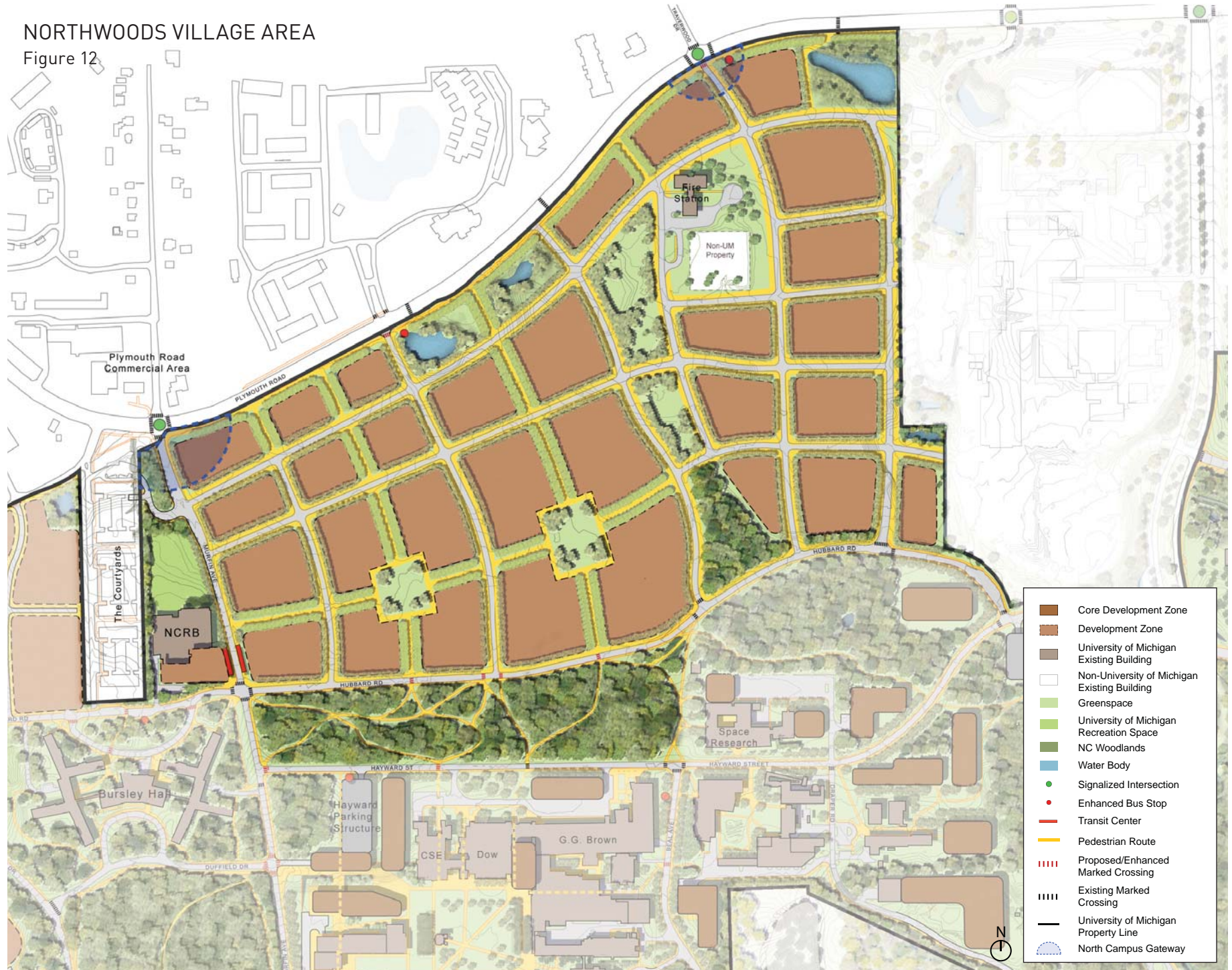
The “Northwoods Village” Plan

The plan (figure 12) illustrates the intent for the “Northwoods Village” and is based on the following principles:

- Develop campus-like character of large blocks immediately north of Hubbard Road, with a finer grain of street blocks with a village or neighborhood character further north and east, depending on future uses
- Establish an open space structure integrated with the circulation network in order to create stronger pedestrian linkages to the Central Core Area. Maintain the woods as a more transparent and inviting space, and visually link the Central Core Area and the “Northwoods Village” Area
- Increase the density of the “Northwoods Village” Area to create greater vitality within North Campus
- Develop a grid pattern of circulation and development parcels to efficiently use the land

NORTHWOODS VILLAGE AREA

Figure 12





Proposed "Northwoods Village," looking south from the Murfin Avenue-Plymouth Road intersection



Existing conditions at the Murfin Avenue- Plymouth Road intersection, looking south

West Area

The West Area is characterized as a “campus in the woods” offering views of the Huron River Valley, the Medical Center, and downtown Ann Arbor. It encompasses Bursley Hall, the North Campus Recreation Building, the Baits complex, and several undeveloped land parcels.

The West Area is designated for future flexible use needs that may emerge in response to the University’s mission and programmatic requirements. Compatibility with the residential character of Bursley Hall and the public goods represented by the North Campus Recreation Building will need to be considered. These centers of residential and campus life will benefit from their adjacency to future redevelopment of the Northwood Apartments.

Access to the West Area is provided via pedestrian routes along Murfin Avenue, Duffield Street, and Hubbard Road. An enhanced bus stop is proposed north of Bursley Hall on Hubbard Road to serve the residential population. The Baits complex and the land to the northwest of Bursley Hall are proposed for flexible redevelopment including a location for public goods in one of the development zones on the site of the Baits complex. The site immediately west of Bursley Hall is designated as a potential open space for passive and active recreation. The southernmost Baits site offers a significant redevelopment opportunity given the views of the Huron River Valley and Ann Arbor to the west. This site could be connected via pedestrian linkages to municipal parks to the west along the Huron River.



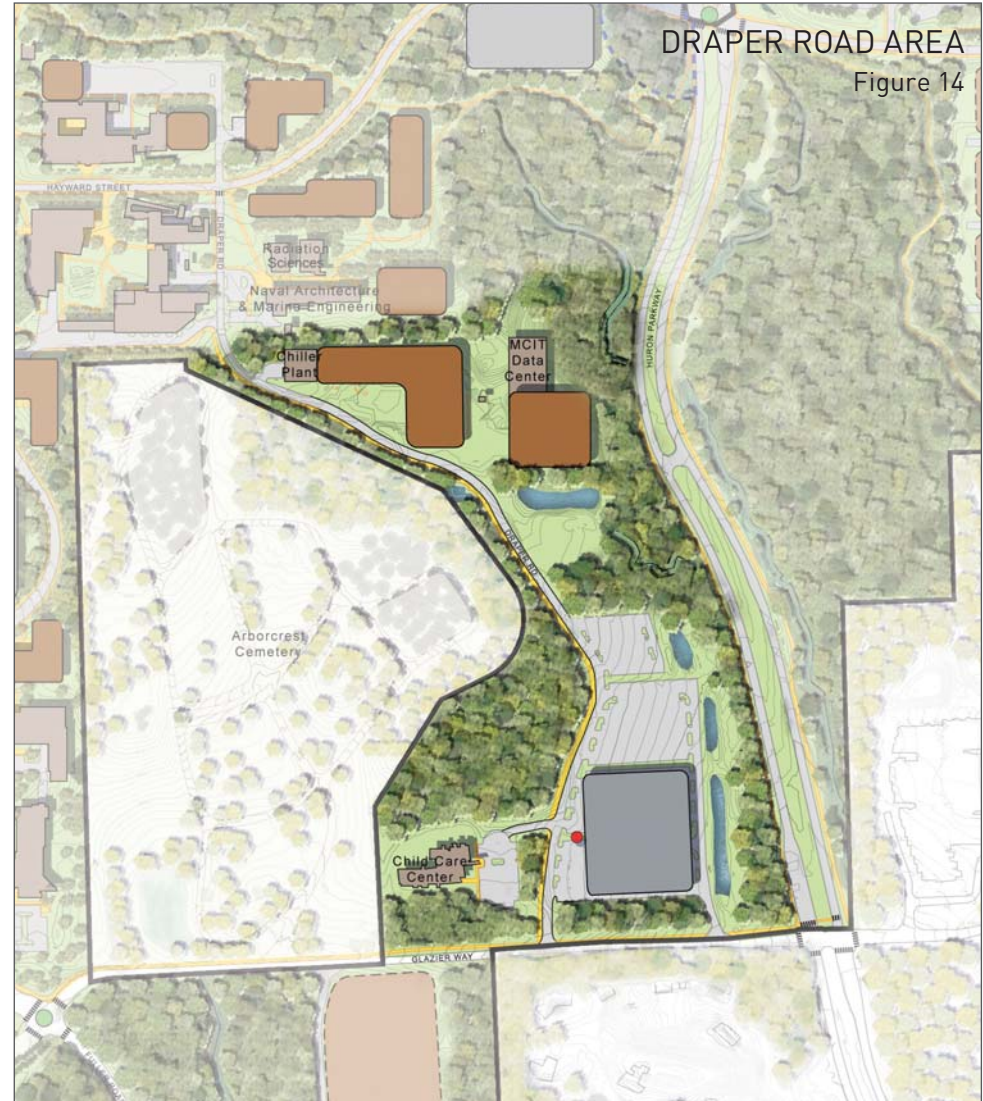
Draper Road Area

The Draper Road Area is located south of the East Core Area, defined by Glazier Way on the south, Huron Parkway on the east, and the edge of the privately owned Arborcrest Cemetery to the west. The area is the location of several service-related facilities including the chiller plant, several grounds facilities, stormwater detention, and commuter parking. Draper Road connects Hayward Street to Glazier Way; it is unpaved and currently not open to the public.

The Draper Road Area is envisioned as an operations and support area serving campus wide needs. Commuter parking, including the potential for a parking structure, is proposed as an optional long-term use for the southern portion of Draper Road near Glazier Way. Several detention ponds are proposed to benefit the watershed associated with Millers Creek.



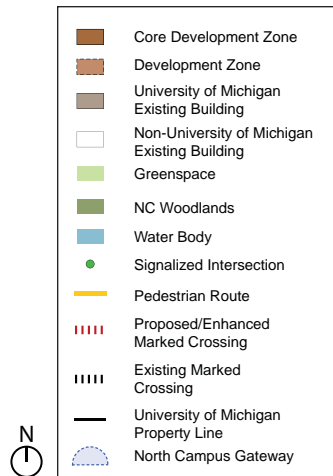
	Core Development Zone
	Development Zone
	Possible Future Parking Structure
	University of Michigan Existing Building
	Non-University of Michigan Existing Building
	Greenspace
	NC Woodlands
	Water Body
	Enhanced Bus Stop
	Pedestrian Route
	Proposed/Enhanced Marked Crossing
	Existing Marked Crossing
	University of Michigan Property Line
	North Campus Gateway



Glazier Way Area

The Glazier Way Area, located south of Glazier Way and east of Fuller Road, is heavily wooded with the exception of a remote parking location at the center of the site.

The Glazier Way Area is designated for future operations and support uses. A majority of the wooded areas remain in the Plan with development sites identified for previously disturbed areas. Two development sites are proposed: 1) at the center of the site generally on existing parking lots; and 2) on the southern edge.

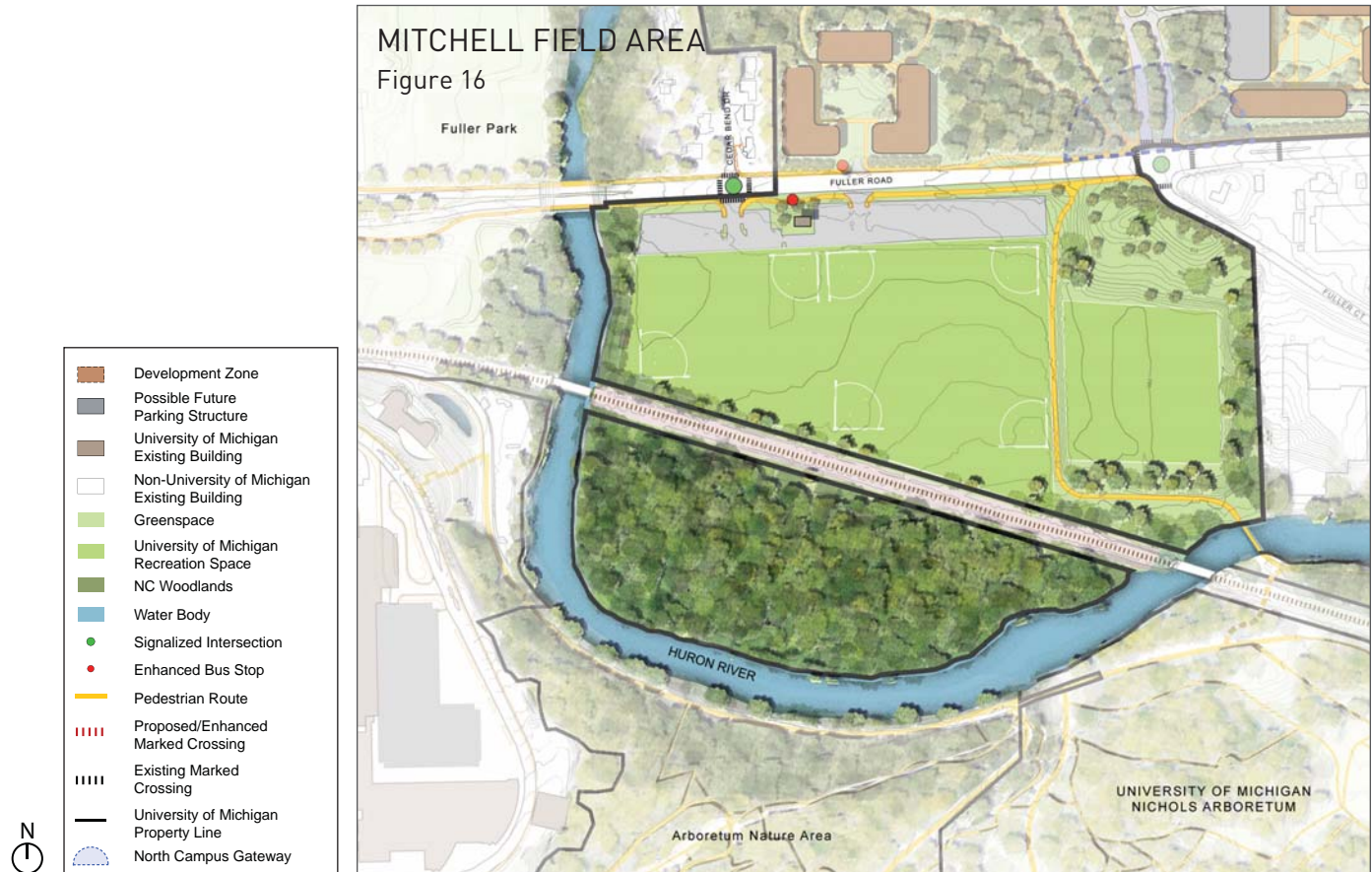


GLAZIER WAY AREA

Figure 15

Mitchell Field Area

The Mitchell Field Area is located in the Huron River corridor and includes the Mitchell Field recreation fields and parking lot. It is viewed as a significant area within the river open space network and remains as a recreation facility in the Plan. The existing pathway that runs through this area connects the Core to the Huron River. Improvements to the pedestrian and bicycle pathways, including a potential tunnel under the railway, are proposed to link the area to Nichols Arboretum and the North Campus Core Area, as well as to the community at large.



East Area

The East Area is located east of Huron Parkway and includes the existing Northwood V residential complex, office and warehouse space, and support functions. New development zones between Hubbard Street and Dean Road provide space for future expansion of the adjacent existing operations and support functional uses. The Northwood V complex is identified as a redevelopment zone for flexible uses. Green buffers are maintained between University and adjacent land uses where appropriate. Enhanced bus stops will link the Northwood V redevelopment and the commuter lot off Green Road to the rest of the University. Development in the East Area should consider Millers Creek Watershed.

EAST AREA
Figure 17



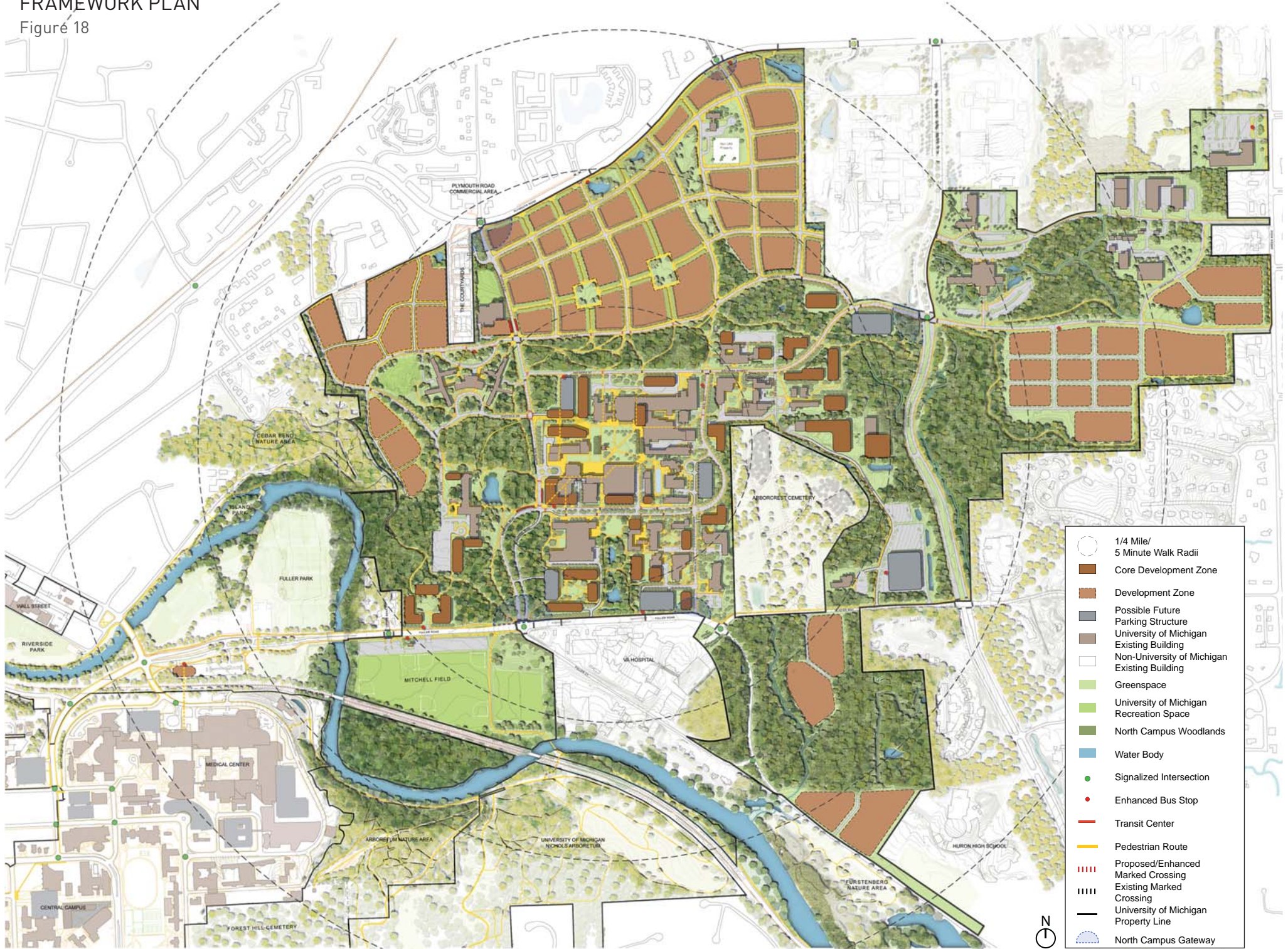




6.0 Conclusions

FRAMEWORK PLAN

Figuré 18



6.0 Conclusions

The North Campus Master Plan Update (Plan) establishes a flexible vision for the future of North Campus—a vision that will support the ever evolving mission of the University of Michigan. Four themes will guide the incremental implementation of the Plan: 1) Create Strong Connections—provide for comprehensive and coordinated circulation systems; 2) Promote Campus Vitality—focus on the quality and vitality of North Campus and identify opportunities for common public goods for the University and the community at large; 3) Optimize Development Capacity—provide for flexible growth strategies; and 4) Respect and Incorporate Environmental Features—integrate the natural features with the identity and character of North Campus.

In the 21st Century, North Campus will play an increasingly important role in the future of the University as fewer major development opportunities are available on other University properties in Ann Arbor. As this Plan demonstrates, North Campus offers significant potential for accommodating new programmatic requirements and for creating a vibrant and dynamic campus environment for University-wide academic and research activities. The Plan builds upon the tremendous natural assets of North Campus, its position in the Huron River Valley, and the significant investments in facilities and infrastructure that have been made by the University over the past fifty years. The Plan incorporates these assets and investments to create a vision for incremental change and transformation, the outcome of which will be a locus of campus activity that will benefit not only the University but the Ann Arbor community as well. Over time, North Campus will evolve to include a wider range of public goods, cultural amenities, clinical services, recreational facilities, and housing options essential to creating the types of collaborative academic, research, and social environments sought by students, faculty, and staff.

The Plan framework is deliberately flexible to enable the University to respond to emerging and future programmatic needs. It is defined by the physical systems of open space and environment; functional use, development patterns and capacity; circulation; and utilities and infrastructure. The implementation of the Plan will be guided by principles associated with each of these systems which are intended to inform incremental decisions and to allow the degree of flexibility necessary to respond to future programmatic requirements, circulation, and infrastructure needs.

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