



Great Northern Multi Modal Transportation Plan

City of North Olmsted

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City of North Olmsted
2009



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Part I. Introduction

1.01 Background

In January 2008, the City began an 18-month planning process to analyze transportation system issues and propose options and improvements in the City's mixed use center. The four phase Plan includes recommendations and alternatives for encouraging transit usage, creating bicycle linkages, promoting pedestrian orientation and enhancing the streetscape through physical improvements.

The proposed improvements illustrated in this report will have a positive impact on the quality of life for residents in the City by connecting residents to resources such as employment, public transit, shopping, and parks and recreation. The recommendations in this report address the residents main concerns over the lack of connectivity, increasing pedestrian safety, repair and maintenance of existing infrastructure, improving signage, traffic congestion and enhancing the visual character of North Olmsted's commercial center by creating gateway's and increased landscaping.

Not only is the project study area the most densely developed area of the City, but it also serves as one of the largest commercial centers in Cuyahoga County and in the region. Therefore, the project will also improve the economic viability of business in the community by improving access to business, encouraging new development, and creating a strong visual impact and gateway to the community.

Figure 1: Context



A majority of this project is grant funded through the Northeast Ohio Areawide Coordinating Agency's (NOACA) Transportation for Livable Communities Initiative.

The study is approximately 693 acres in size and bordered by Lorain, Butternut Ridge and Columbia Roads. The study focuses on an area comprised of five (5) diversely zoned districts just east of the City's center considered the "heart" of North Olmsted. In addition to the roadways, Interstate I-480 dissects the City in an east-west orientation providing regional access to this area that supports a variety of building types from high-rise apartments and planned single-family communities to hotel, retail and commercial developments.

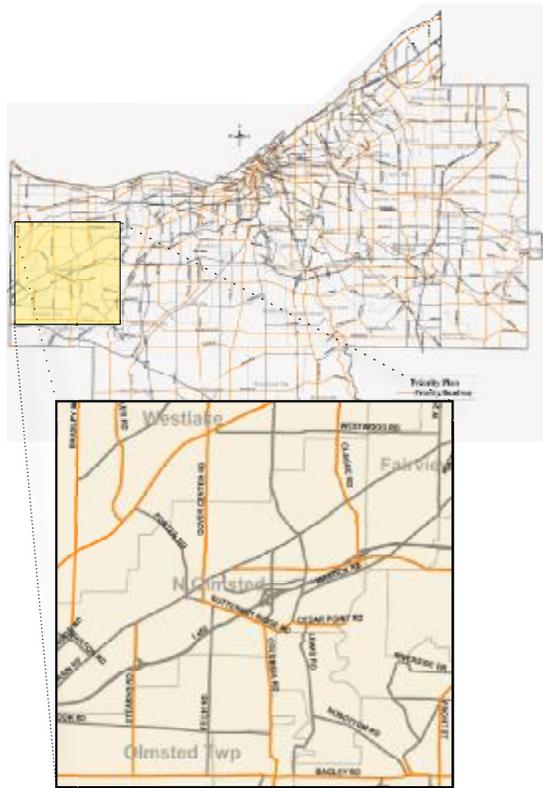


Figure 2: Cuyahoga County Bicycle Facility Priority Plan

The study area sits between two regional metroparks, The Rocky River Reservation and Bradley Woods. The Map above highlights the priority routes within North Olmsted to improve access and connectivity. The routes include Butternut Ridge Road, Cedar Point Road, Columbia Road, Brookpark Road, and Dover Center Road.

The goal of the Great Northern Multi Modal Transportation Plan (GNMMTP) is to enhance the community’s quality of life, facilitate accessibility and transportation choices such as transit, walking, and biking, and to improve the safety and efficiency of the existing transportation system while enhancing the aesthetic interest of the area.

The existing conditions analysis and public input phase helped to identify deficiencies and suggest potential remedies. We were able to consider valuable public and committee input to further explore possible remedies to begin and further refine the solutions presented in this report.

The GNMMTP provides a transit, pedestrian and bicycle vision of the solutions required to solve the disconnect of local and regional destinations, in and around the study area, and improve the vehicular traffic flow by appropriate traffic signal timing, modified speed limits, and facilitating the bicycle and pedestrian options.

Improving the public transportation waiting environments, adding circulator routes and improving the bicycle and pedestrian connection to the Park-and-Ride, and other bus stops, can help encourage the use of public transportation, thus reducing the vehicular pressure on the area.

Creating bicycle and pedestrian connectivity with new bike routes, new and improved destinations, and new lighting, signage and landscaping can encourage bicycle and pedestrian travel throughout and around the study area. This will not only improve the image and awareness of the benefits of the area, but may also contribute to the reduction of single occupancy vehicle use.

This study has not ignored the benefits to private development of enhanced transportation options. The project has sparked support from Westfield Great Northern in improving the bicycle and pedestrian access to the mall property. Improved connection to this valuable resource will help renew economic vitality and increase local awareness of bicycle and pedestrian users, while possibly reducing vehicular traffic pressure.

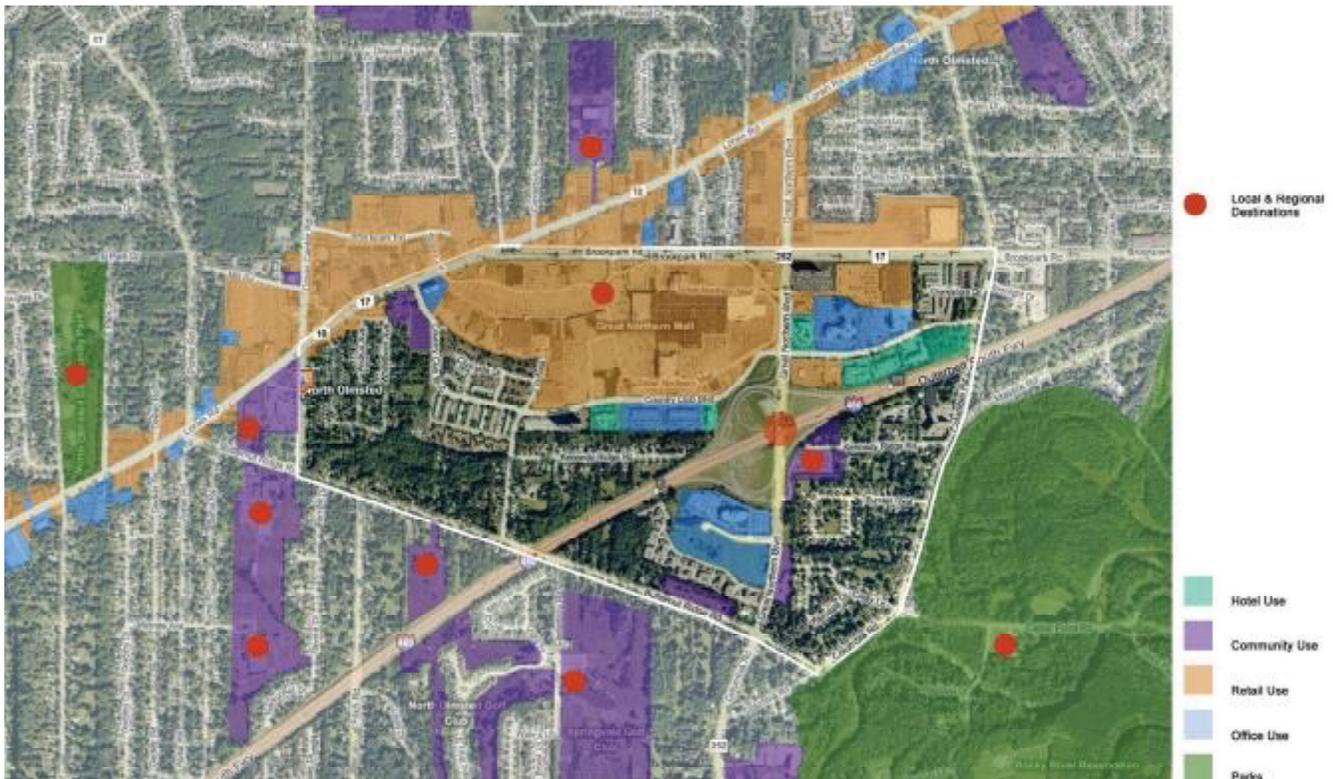
1.02 Existing Conditions Analysis

The GNMMTP analyzed current vehicle, transit, bicycle and pedestrian traffic patterns of the City of North Olmsted, with the purpose of presenting viable solutions to improve the connectivity and vitality of the City. The study analyzed the development of transportation infrastructure over the years to respond to the City’s growth. Unfortunately, community disconnects and vehicle congestion was the result of this growth.

Base mapping data was compiled from information provided by the Cuyahoga County Planning Commission. Digital information in ArcView GIS file format such as aerial photography (circa 2006), parcels, planimetrics, streets maps, and topography were obtained and manipulated in an AutoCAD file format for use for the GNMTP. The City's digital file of the City Zoning Map has also been used in the base mapping for the project. A map of the GCRTA System Map was obtained from RTA that reflects the current bus routes with the City. A Sidewalk Deficiency map was created to show areas within the project study area lacking public sidewalks to illustrate where sidewalks are needed in order for continuous pedestrian access to occur. Finally a detailed infrastructure report and photo inventory was completed. This report was utilized as reference for safety needs, improvement needs, and aesthetic needs within the study area.

The compilation of data and analysis of the study area led to the creation of the map below which illustrates how the existing transportation system, especially the bike and pedestrian system, fails to link community assets and destination points effectively.

Figure 3: Land use, destination areas and opportunities



1.03 Public Input

Public input played a central role in the planning process, from the initial identification of issues and goals through exploring options and finally developing the plan's recommendations. A Steering Committee was created representing the local community that consisted of city officials, business representatives and other area stakeholders who have particular knowledge and insights into the study area. Additionally, a Technical Advisory Committee was formed representing regional planning, transportation, and park agencies, as well as key property owners whose partnerships will be essential in the ultimate implementation of the plan. A variety of public outreach methods were used to reach a broader audience. Information regarding the plan was posted on the City's website and local cable channel. Additionally, the project was promoted in the annual homecoming bulletin delivered to every household in the City and through targeted, direct mailings to residents and businesses located within the study area. Significant feedback from the community was obtained during three public meetings and in many emails, letters, and other communications throughout the process.



Figure 4: Existing conditions of sidewalks



Figure 5: Existing bus stops

The table below identifies the timeline of various committee and public meetings held for the Great Northern Multi Modal Transportation Plan.

Date	Meeting
March 19, 2008	Steering Committee
May 21, 2008	Steering Committee
August 28, 2008	Stakeholder Focus Group
January 21, 2009	Steering Committee
February 19, 2009	Technical Advisory Committee
March 19, 2009	Public Meeting
July 7, 2009	Steering Committee
July 14, 2009	Technical Advisory Committee
July 29, 2009	Public Meeting
December 9, 2009	Public Meeting

Initial committee meetings and focus groups were designed to draw out the priority issues within the study area. These issues related to the common themes of safety, connectivity, infrastructure, and implementation.

- Safety issues include the number of traffic accidents in the study areas, the speed and volume of traffic discourages pedestrian and bicycle use, the quantity of broken and missing sidewalks, and the deteriorating condition of the bike path.
- Connectivity issues include poor connectivity between major



Figure 6: Inconvenient pedestrian circulation



Figure 7: Street frontage on Country Club Boulevard



Figure 8: Mall Entrance on Country Club Boulevard

city destinations, the lack of a cohesive green space network, poor connections between different modes of transportation, the lack of a comprehensive signage/way finding system.

- **Infrastructure issues include the decline of the physical condition of certain streets in the study area, including sidewalks, landscaping, lighting, transit stops and other streetscape amenities, which are exacerbated by the lack of adequate maintenance.**
- **Implementation issues include the need to identify sources for funding and partnerships as well as priorities for improvements.**

In addition to these specific transportation and infrastructure related issues, broader **land use, planning and economic development considerations were discussed:**

- **What part can transportation investments play in encouraging quality economic growth?**
- **How can we improve the links and relationships between land use and transportation to achieve responsible development patterns promoting smart growth and sustainability?**
- **How can we improve the physical links between population centers, employment centers and other community destinations to promote accessibility and economic development?**
- **How can transportation decisions enhance our quality of life and connect our community to the natural environment?**

Through the analysis of the existing conditions data and the wealth of public input collected, six deficiencies and three main goals were identified for the study area that would become the core of the **Great Northern Multi Modal Transportation Plan.**

Deficiencies:

1. The deterioration of Country Club Boulevard
2. The lack of continuous sidewalks along all public streets
3. The termination of bike path at the I-480/SR 252 interchange
4. The lack of bus shelters along main public transit routes near high **density residential and commercial areas**
5. The absence of a “gateway” into the City and Great Northern **shopping district**
6. The lack of integration between various modes of transportation

Goals:

1. Improve pedestrian and bicycle safety and flow while providing adequate **pedestrian facilities as well as convenient access to public transportation.**
2. Improve the community links and relationships between the land use and vehicular and local transit options to achieve responsible economic growth patterns following the principles of smart growth and sustainability.
3. Improve the aesthetic impression and the sense of a gateway and common identity through streetscape enhancements and road condition while facilitating improved traffic flow.

Part II. Components of the Plan

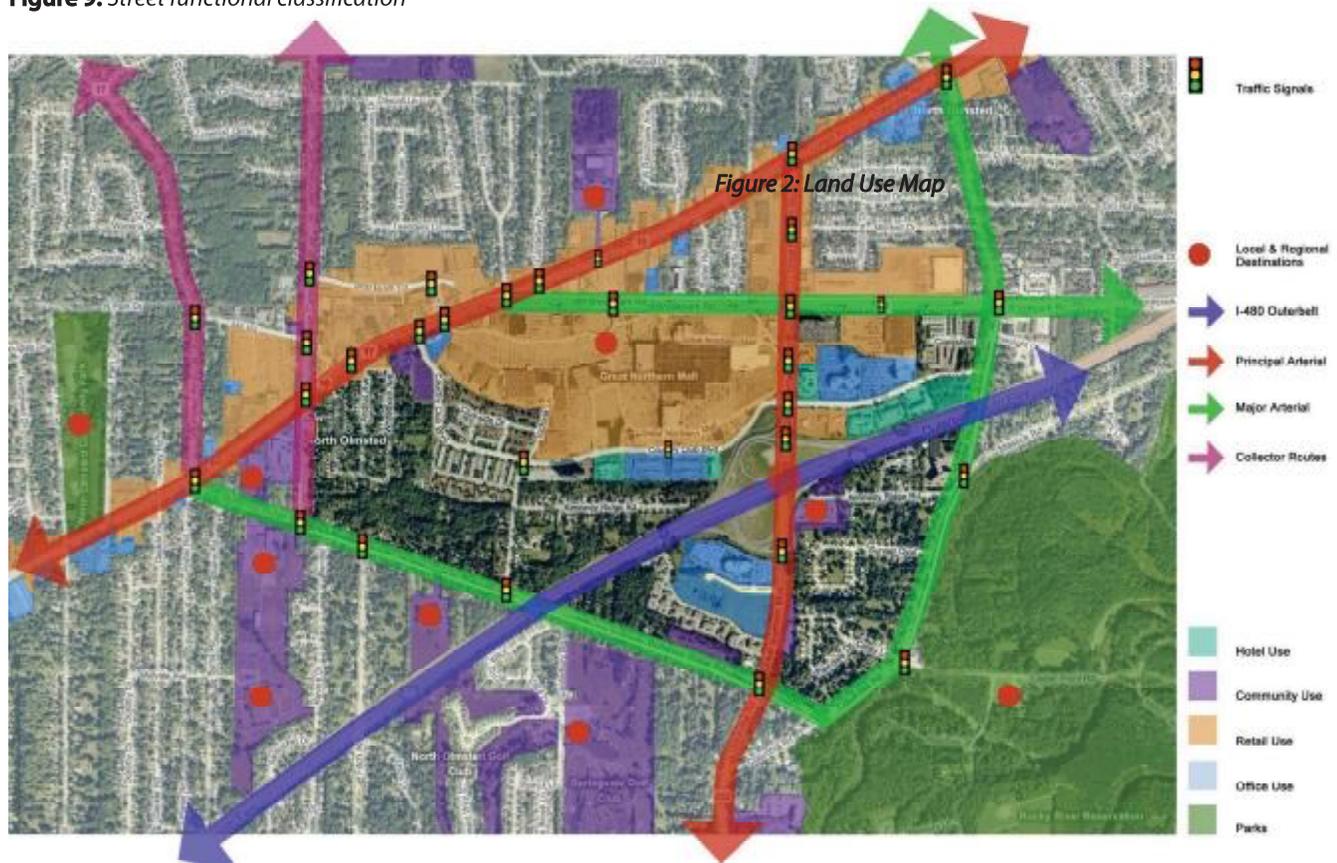
2.01 Street Network and Connectivity: Traffic Vision Plan

Traffic network summary: condition, counts and capacity

The study area is bounded and intersected by principal arterial, major arterial, Interstate and several connector routes as defined by ODOT classifications.

Even with this extensive system there is limited cross-city connecting access. Traffic signalization is abundant throughout the study area but the system is vehicle dominant, creating connection difficulties to the areas hotels, community uses, retail, office uses and parks by alternate forms of transportation. Both local and regional destinations contribute to traffic density at varying times of the day/week and Country Club Boulevard sustains heavy volume of traffic, which has led to its need for repair.

Figure 9: Street functional classification



As a part of the comprehensive study we have evaluated the potential for developing more cohesive transportation routes by improving existing corridors. This included the development of clearly identified paths with obvious destinations. This study also evaluated how heavy vehicular traffic along Great Northern Boulevard, Brookpark Road and Lorain Road can more effectively coexist with pedestrians and cyclists.

1998-2002 traffic counts are shown on the Traffic Data Map. Currently the major arterial routes are supporting traffic similar to that of a principal arterial roadway. Congestion on Lorain Road and the northern portion of Great Northern Boulevard cause routing of additional traffic to Butternut Ridge Road. Country Club Boulevard supports heavy traffic as well as significant bus routes.

The volume of traffic on Butternut Ridge Road was of particular concern to residents of the street. Butternut Ridge is a mile and a half long Historic District and is a reminder of both the origins of old Olmsted as well as how the community developed over time. The corridor is a major local artery with numerous homes, schools, businesses and a cemetery which show a wide range of building styles and architecture, representing periods from the first settlement to today. Preservation of the road's residential character is important to the community.

Figure 10: Traffic count studies

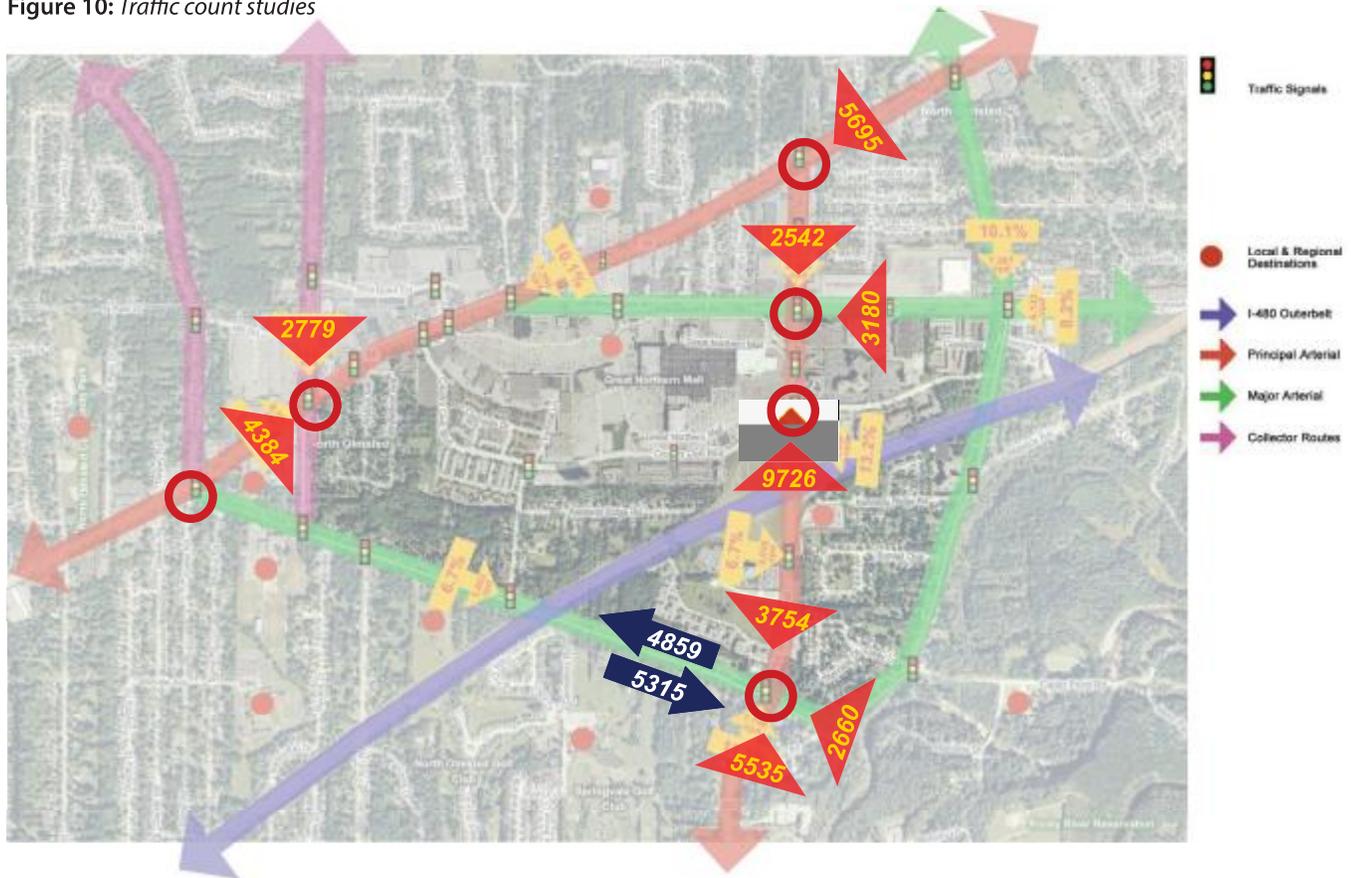




Figure 11: Existing parking edge on street

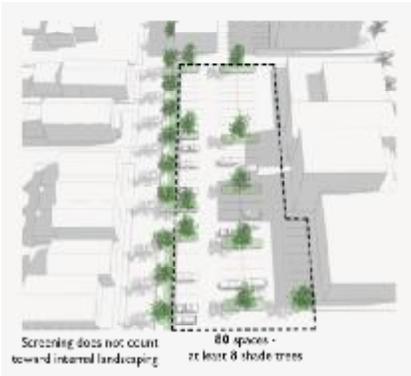


Figure 12: Parking areas: landscaping

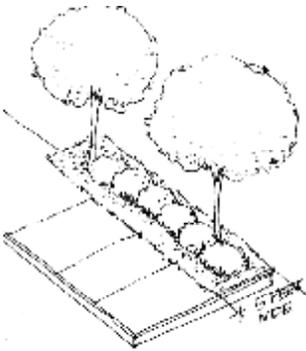


Figure 13: Landscape buffers screen parking lot edges



Figure 14: Pedestrian paths in parking lots



Figure 15: Landscape islands should be designed to collect and filter stormwater runoff from parking lot surfaces.



Figure 16: Bioswale

There are 18,000 vehicles per day passing through the Country Club Boulevard and Great Northern Boulevard intersection, representing the highest vehicle count in the area. This is evidenced by 2000 and 2007 Average Daily Traffic maps. Traffic volume remains at fairly consistent on Lorain Road between 2000 and 2007. Increases are shown on I-480, Great Northern Boulevard and Brookpark Road between Great Northern Boulevard and Lorain Road.

New traffic studies were conducted to further inform recommendations at the intersections of Great Northern Boulevard and Lorain Road, Brookpark Road, Country Club Boulevard and Butternut Ridge Road. Additionally the intersections of Lorain and Dover Center Road and Porter Road were studied.

Parking recommendations

The off-street parking criteria in the zoning code should be examined to determine if a reduction in parking space requirements could be accommodated to increase the amount of landscaping and natural features within parking fields. Shared parking areas and/or linking parking areas should be considered throughout the study area.

It is particularly important to soften the appearance of surface parking areas, with trees to shade the paved area and absorb light and heat, and lawn and ground covers to collect and filter surface runoff. Portions of all parking areas, both new and renovated, should be devoted to landscape, with additional consideration given to innovative storm water management elements such as permeable pavers, rain gardens, bio-swales, bio-retention basins as well as leaving open space undisturbed.



Figure 17: Existing bus stop

2.02 Transit Facilities: Vision Plan

Transit Facilities Summary

The transit system including stops are shown on the Transit Map below. Limited service routes encircle the study area. Regular service routes (shown as a solid blue line) occur along three major streets; Lorain Road, Great Northern Boulevard and Country Club Boulevard. The North Olmsted Park-n-Ride transit center is located just southeast of the intersection of I-480 and Great Northern Boulevard and is accessible by car from an entrance drive located on Great Northern Boulevard.

The greatest number of bus stops occurs along Lorain Road and along the limited service routes, with only three of these stops having bus shelters. Bus stops occur less frequently along Country Club Boulevard and Great Northern Boulevard.

This study proposes improvements to the existing public transit system to reduce single occupancy vehicle use, increase connections to the areas retail centers, and provide public transportation to community destinations.

Figure 18: Existing RTA routes and stops





Figure 19: RTA healthline bus shelter in downtown Cleveland



Figure 20: Bus shelter with solar panels

RTA Route and circulator options

This study proposes a new regular service route along Brookpark Road, from Columbia Road to Lorain Road, to increase connection to the existing retail centers. An expansion of the circulator system along Lorain Road to the existing stop at North Olmsted Park is also proposed. Current funding, ridership and route reductions at RTA make the implementation of this recommendation unlikely in the near future.

Addition/renovation of bus stops and shelters

Increasing the quality of existing bus stop, updating the appearance of existing shelters to create more user friendly waiting environments is central to the transit recommendations of this study. New or improved shelters are shown at the entry to North Olmsted Park, at the intersection of Lorain Road and Great Northern Boulevard, along the new Brookpark Road regular service route, at the traffic signal close to Walmart as well as a shelter close to the Great Northern Mall entrance drive. Additional enhanced waiting environments are proposed at the intersection of Butternut Ridge Road and Dover Center Road and along Country Club Boulevard close to the Mall entrance near Dillard's.

Further study of RTA ridership in North Olmsted should be conducted to create a priority list of stops and shelters. The study can identify which stops need physical improvements and additional amenities, where shelters may be relocated to match current ridership or where new shelters could be added.

Figure 21: Proposed RTA routes and stops

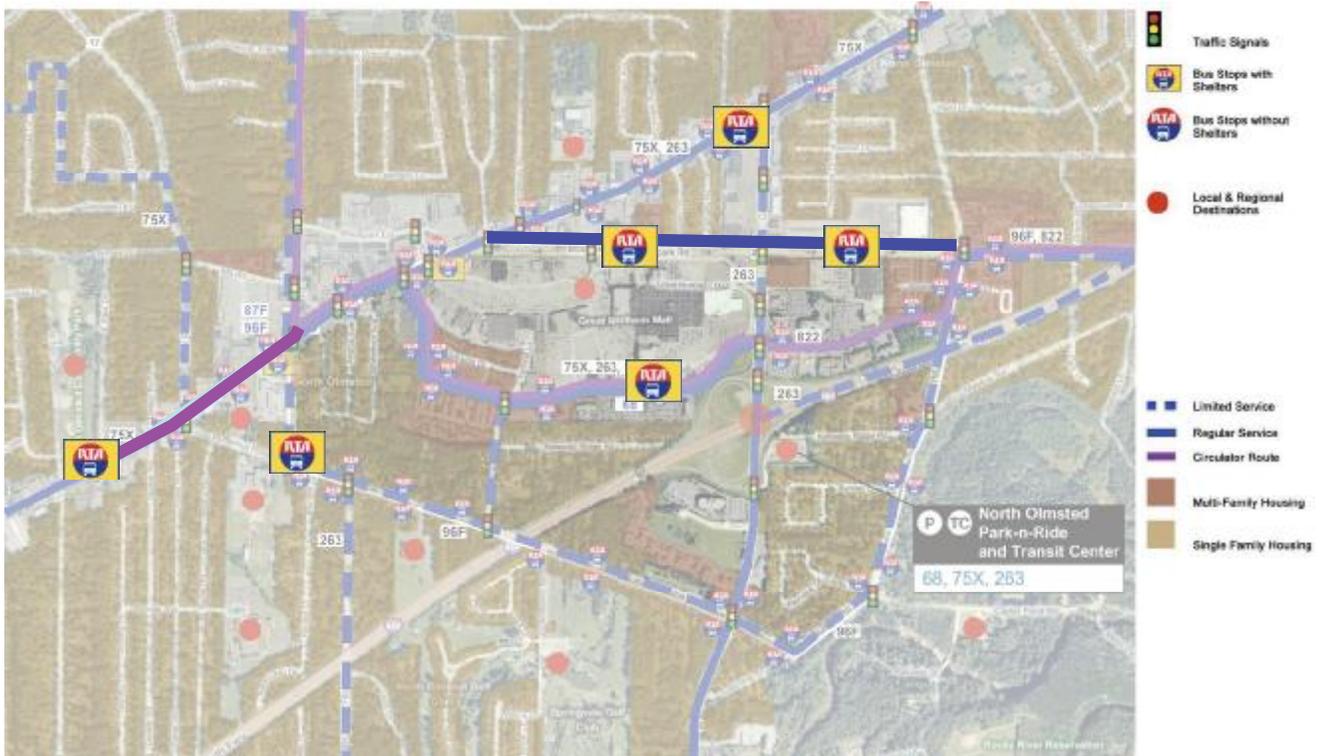




Figure 22: Lack of curb edge; dangerous for bikes and pedestrian



Figure 23: Sidewalks end abruptly

2.03 Bicycle and Pedestrian Network: Vision Plan

Existing network summary

The existing bicycle and pedestrian network is fragmented and incomplete, disrupting community linkages and reducing connectivity to key destinations within and surrounding the study area.

The Pedestrian Disconnect Map illustrates this lack of connection. Local and regional destinations are highlighted with red-orange dots. Disconnected bike paths (shown in teal) prohibit bike use to and through the study area. The map also outlines sidewalk deficiency, which occurs in numerous places throughout the area. The absence of pedestrian sidewalks prohibits pedestrian traffic and creates disconnect from the hotels to retail across Great Northern Boulevard to restaurants, the mall and other retail and commercial business. The lack of curb edge in places is particularly dangerous to bikes. Great Northern Boulevard is pedestrian unfriendly and the deteriorating condition of Country Club Boulevard has a negative impact on attracting pedestrian and bicycle use.

Figure 24: Pedestrian Disconnect Map (see page 29 for a bigger map)

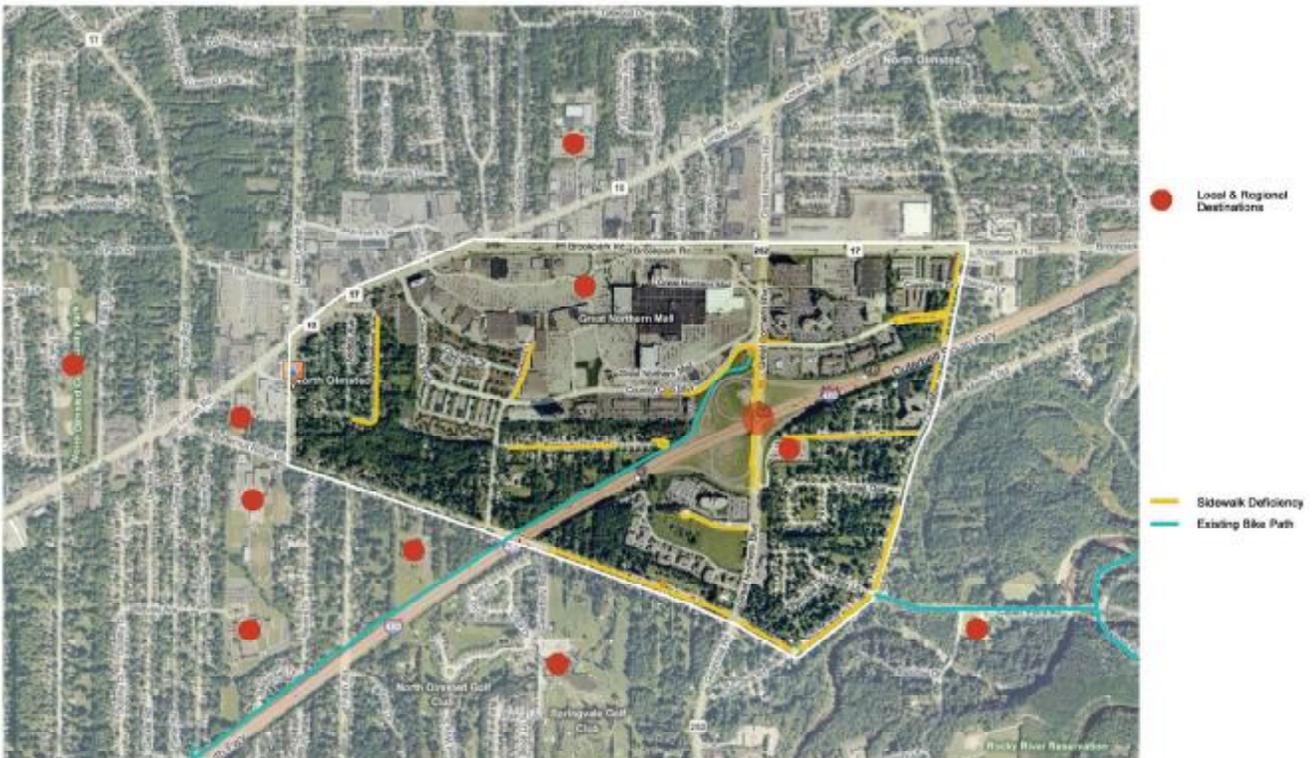




Figure 25: Dedicated bike lanes

Design options for pedestrian enhancement and bicycle connectivity.

The Great Northern Multi Modal Transportation Plan proposes a system of improvements to increase connectivity and enhance options for pedestrians and cyclists as shown on the bicycle and pedestrian improvements map. Again, local and regional destinations are shown with red-orange dots along with open space improvement areas shown with green dots. These improvements are discussed in further detail in section 2.04 of this report. The proposed improvements give broader access to key locations for bikes and pedestrians, connecting pocket parks, the golf course, the cemetery and the library as well as correcting a main deficiency identified in the existing conditions analysis, the termination of bike path at the I-480/SR 252 interchange.



Figure 26: Bike trails in parks

Proposed pedestrian/bike path improvements are shown as a medium brown line on the bicycle and pedestrian improvements map and areas of pedestrian deficiency that should be addressed are shown as a yellow line.

One of the most significant recommendation to come out of the study is the addition of bike lanes on Butternut Ridge Road. While initially considering options for bike and pedestrian routes that crossed over Great Northern Boulevard closer to the Mall, Butternut Ridge Road emerged as a more direct and safer alternative to connect the community to the Rocky River Reservation of the Cleveland Metroparks.

Figure 27: Bicycle and pedestrian improvements map (see page 30 for a bigger map)

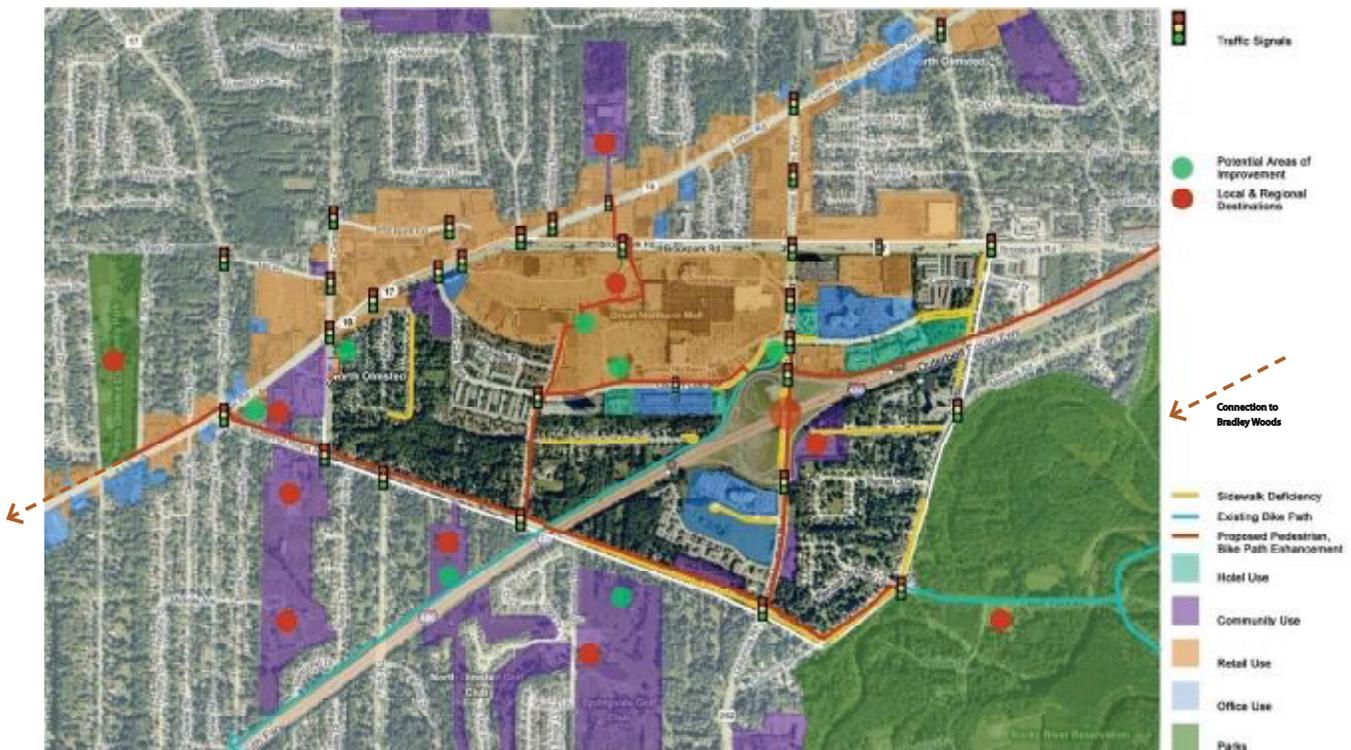




Figure 28: Bicycle and pedestrian improvements

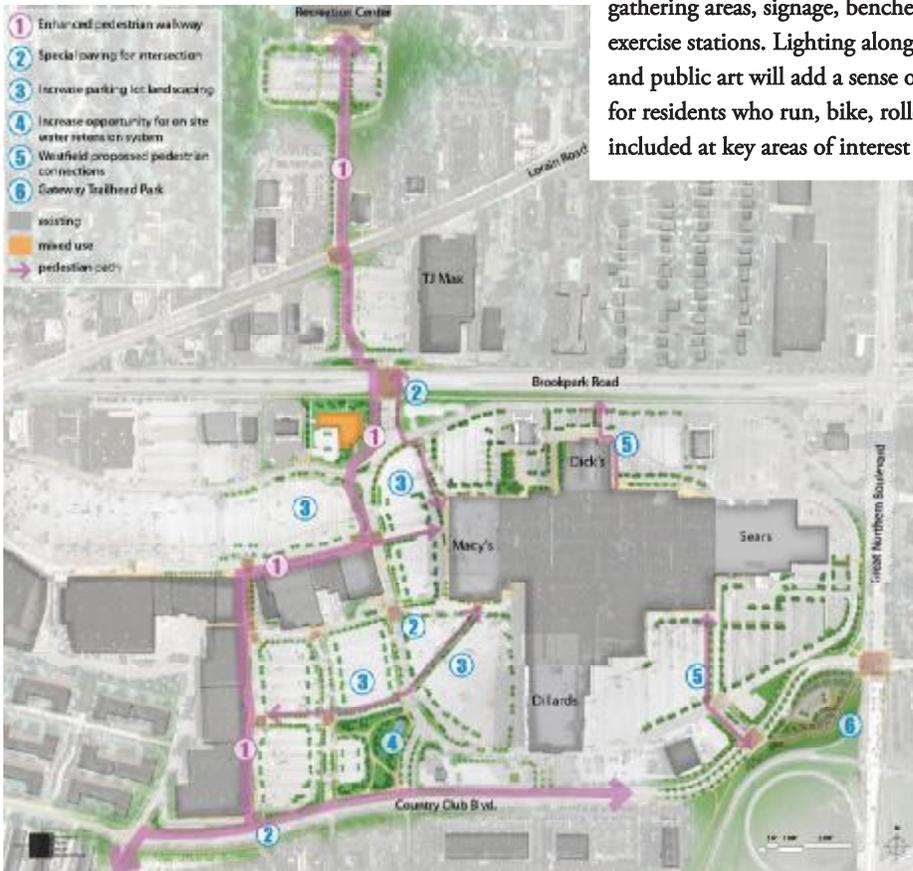


Figure 29: Bike racks



Figure 30: Amenities for bikers; water fountain

Figure 31: Connecting the Recreation to the Community



Also shown is a pedestrian/bike path beginning at Cedar Point Road at the entry to the Metroparks, running down Columbia Road to the new bike paths on Butternut Ridge Road. Consideration should also be given to extending the pedestrian and bicycle path along Lorain Road to create an additional connection to Bradley Woods, linking the two Metroparks through North Olmsted.

A second pedestrian/bike path improvement (Figure 27a) is shown beginning at the intersection of Victoria Lane and Butternut Ridge, heading north through the Great Northern Plazas across Brookpark and Lorain Roads making a connection to the current recreation center.

The third pedestrian/bike path improvement begins at the intersection of Victoria Lane and heads east along Country Club Boulevard, connecting with the existing bike path at the creation of a new pocket park and continues across Great Northern Boulevard, adjacent to I-480 to points east. Comprehensive streetscape improvements would facilitate this recommendation and should include pedestrian amenities as well crosswalk improvements to allow greater access across Country Club Boulevard.

Additional points of interest along the pedestrian/bike path include gathering areas, signage, benches, trash receptacles, water fountains and exercise stations. Lighting along paths, a comprehensive sign package and public art will add a sense of safety to the pedestrian/bicycle system for residents who run, bike, rollerblade and walk. Bike racks should be included at key areas of interest and bus stops.



Figure 35: Pedestrian-scale streetscape

Aesthetic Road Improvements:

Streetscape Concepts, Gateways, Signage and Lighting

The Great Northern Multi Modal Transportation Plan investigated how the first impression of the area can be enhanced for regional commuters as they enter the City’s mixed-use center.

The first aesthetic improvement proposed is to establish entry “gateways” or a sense of a district with the addition of light poles, artwork and/or signage throughout the district. These aesthetic improvements could be enhanced with hanging flower baskets and/or banners along principal arterial, major arterial and connector routes. Specifically along Great Northern Boulevard pavers, potted plants/trees or art will enhance the streetscape for all modes of transportation.



Figure 36: Public art



Figure 38: Median landscaping



Figure 39: Crosswalk improvement

Figure 37: Aesthetic improvements plan

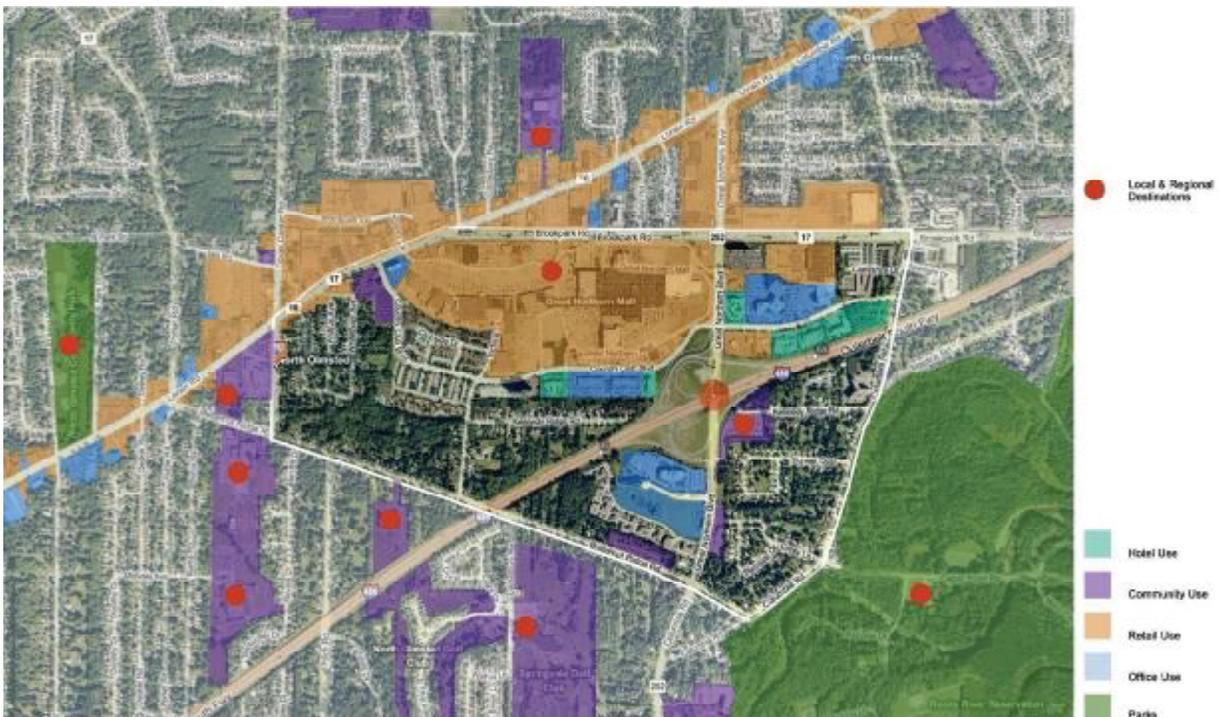




Figure 40: *Country Club Boulevard*

All of these ideas were developed in a series of sketches and maps to communicate the potential for improving the image and experience of Country Club Boulevard and Great Northern Boulevard.



Above: Before and after graphics showing changes to Country Club Boulevard with reconstruction of the deteriorating median, new curbs, lights, banners, street trees. Redesign of this street will create an improved visual impression of the main gateway from the highway to the commercial area and with focus on the intersection, create stronger connection across the boulevard to Great Northern Mall.



Figure 41: *Great Northern Boulevard*

New decorative masonry light poles, gateway signage landscaping will add visual interest and identity to the broad expanse of pavement at the intersection of I-480 and Great Northern Boulevard. The addition of special treatment to the crosswalks will aid accessibility across Great Northern Boulevard and soften the existing hardscape.



Figure 42: *Dover Center Road*

At Dover Center Road and Butternut Ridge Road new light poles, banners, gateway signage, landscaping and pedestrian amenities will help to mark the main civic area of the city as well as create an entrance into the Butternut Ridge Historic District. Pedestrian improvement here and along Butternut Ridge are necessary for the high level of pedestrian activity that exists near the schools and library.

Additional improvements along Butternut Ridge are shown for the Butternut Ridge Cemetery in coordination with the City's Cemetery Improvement Plan. A ceremonial gateway with lighting, signage designating the cemetery's historic significance, repair of the existing sidewalk, a hedgerow or fence to define cemetery and improvements to the mausoleum building will add additional community value to the proposed east/west bike lane along the street.



Figure 43: *Butternut Ridge Cemetery entrance*

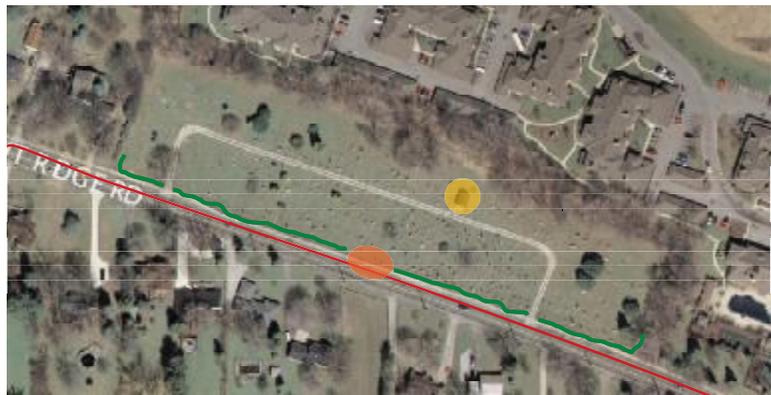


Figure 44: *Butternut Ridge Cemetery plan*



Figure 45: *Butternut Ridge Cemetery entry facade improvements*

2.04 Pocket parks and connectivity to the existing green network

Although they are often too small for physical activities, the addition of pocket parks will provide greenery, a place to sit outdoors, and can become important visual amenities that can be excellent locations for gateways, signage and markers.

Design options for new parks

The proposed bike link along Butternut Ridge Road, connecting the bike path to the Rocky River Reservation sets the stage for additional connections to existing and future green spaces. Four green spaces within and immediately adjacent to the study area were selected for further study and identified as targeted links to the broader pedestrian/bicycle system.

Improvements to the Butternut Ridge Cemetery were listed in the previous section of this report. A new Gateway Trailhead Park is proposed in the space between the I-480 westbound on ramp and Country Club Boulevard. This park has limited parking to allow North Olmsted resident to drive, park and then ride the bike path. This park also serves to create a visual gateway between the Interstate exit and the mall, which was identified as an issue during community meetings.



Figure 46: Conceptual design for proposed Gateway trailhead park



Figure 47: Enhancement to the existing green space at Great Northern Plaza

Figure 48: Park improvement plan



1. Butternut Ridge Cemetery **2.** Proposed Gateway Trailhead Park **3.** Proposed Retail Plaza **4.** Proposed Future Springvale Park **5.** Connection to North Olmsted Community Park **6.** Connection to Rocky River Reservation



Figure 49: Proposed Springvale Park

Additional improvements are shown to create Springvale Park, a proposed new passive recreation area north of the public golf course. The park would have easy access to the proposed bike path along Butternut Ridge road, connecting to the rest of the open space network. Not listed for improvement as part of these recommendations, North Olmsted Park is also connected to these parks via the pedestrian/bicycle system.

Creation, connectivity and improvement to these parks will increase opportunity for entertainment and events such as art exhibitions, farmer’s market, outdoor movies and concerts to be programmed regularly and increasing multi modal transportation options to these amenities will provide greater utilization of green space.

Figure 50: Park Connectivity



Part III. Implementation and Next Steps

3.01 Summary of proposed improvements

A strong implementation strategy is the key to any successful planning effort. The City administration, the Planning and Design Commission, and City Council will be primarily responsible for carrying out this plan's vision. Many of the recommendations will require capital improvements or further study. In addition to the City, a number of other government agencies and the private sector will play a role in implementation, so it is imperative that all parties work together to ensure that the plan is implemented consistently.

Descriptions of recommended physical improvements to the study area are contained throughout the plan, as well as in this section in order to be used as a point of reference.

Traffic and Transportation Infrastructure Recommendations

- Coordinate the recommendations of this plan with the recommendations of NOACA's Road Safety Audit of Great Northern Boulevard and Brookpark Road. Study the extension of southbound Great Northern Boulevard to create a lane designated for westbound I-480 traffic.
- Address signal timing on Lorain Road to improve traffic flow and travel time.
- Conduct a feasibility study of reducing the speed limit on Butternut Ridge Road.
- Create a comprehensive signage plan to improve way finding and alert drivers of pedestrian crossings and bicycle traffic.

Transit Recommendations

- Determine the need for additional bus shelters by evaluating usage statistics. Propose additional bus shelters in locations where the need is warranted.
- Evaluate potential for extending service and adding a transit stop on Brookpark Road at the North Olmsted Towne Center and Walmart drive location.
- Install decorative benches, planters and trash receptacles at bus stop locations to improve the experience of using public transit.

Streetscape Enhancement Recommendations

- Enhance the appearance of the I-480 ramp areas at Great Northern Boulevard with landscaping, public art, signage and other amenities to create gateways into the City.
- Reconstruct Country Club Boulevard to include sidewalks on both sides of the street and a new center median with a mixture of landscape, brickscape, decorative lighting and other visual amenities.
- Install decorative street lights along Butternut Ridge Road that are context sensitive to its historical character.
- Encourage the appropriate use of community streetscape banners.
- Soften the appearance of surface parking areas through the use of landscaping.

Pedestrian and Bicycle Improvement Recommendations

- Construct a designated bicycle lane along Butternut Ridge Road and a portion of Columbia Road to connect to the existing bicycle route on Cedar Point Road in the Rocky River Reservation of the Cleveland Metroparks.
- Encourage pedestrian and bicycle improvements on private property through partnerships and in the course of development review through the Planning and Design Commission.
- Address deficiencies in sidewalks by working with property owners to install sidewalks where missing and to repair or replace sidewalks that are cracked and uneven.
- Ensure all sidewalks and curb ramps are accessible to persons with disabilities.
- Improve crosswalks with differentiated paving materials, colors and textures. Install countdown crosswalk timers in areas of high traffic.
- Coordinate bicycle facility improvements with the Cuyahoga County Bike Facilities Priority Plan.
- Install bicycle racks at points of community destination. Create a “Bike and Ride” by installing bike racks at the RTA Park and Ride facility and other transit stops.
- Improve the experience of using the bike path by adding amenities such as benches, water fountains, and exercise stations.
- Create a maintenance schedule for the bike path that involves trimming overhanging branches, repairing uneven pavement, and maintaining fencing.
- Ensure the bike path is well identified with signage to encourage awareness of bicyclists, especially where the path crosses public streets.
- Create a public education campaign that encourages the use of bicycles and raises awareness of the rights of bicyclists to share the road.

Open Space Recommendations

- Improve the green space area north of Springvale Golf Course to create a park **area used for passive recreation.**
- Develop a Trailhead Park at the terminus of the bike path at the southwest **corner of the Great Northern Boulevard/Country Club Boulevard intersection, which will serve as a visual gateway to the City and also provide amenities for bike path users.**
- Utilize green space and other open areas in the commercial center to hold **activities such as art shows, farmers' markets, outdoor movies, concerts, and special events.**
- Coordinate public improvements to the Butternut Ridge Cemetery with the **recommendations of this plan.**
- Resolve the disconnection between the Recreation Center, residential **neighborhoods, and other major points of destination within the City. Evaluate options for creating bicycle and pedestrian linkages to the Recreation Center. Evaluate alternate locations with greater accessibility for recreation facilities in the future.**

3.02 Prioritization, cost estimates and potential funding sources

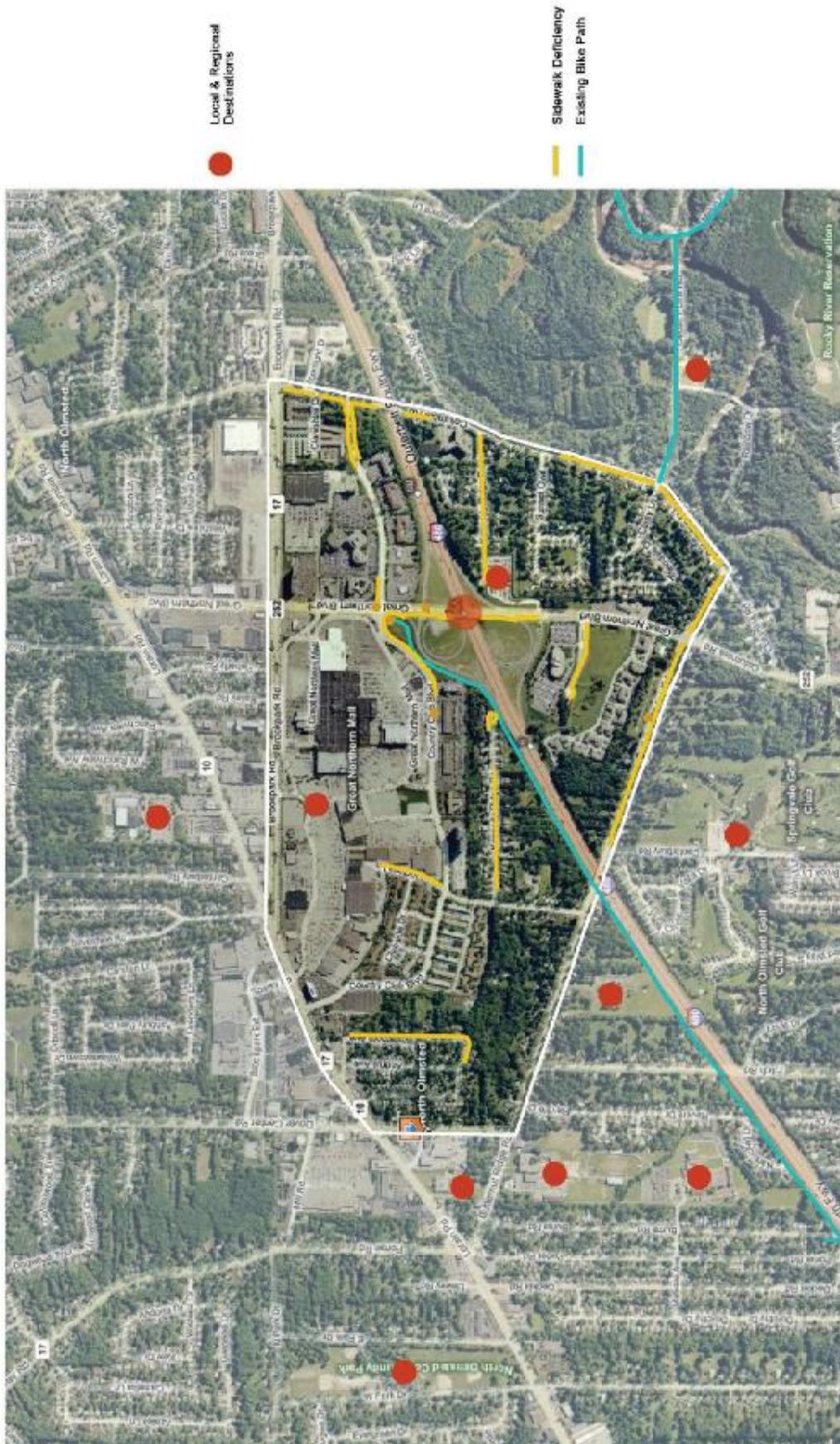
The following chart organizes the recommended studies and capital **improvements contained within this plan and assigns a time frame for completion, develops a rough cost estimate, and identifies potential funding sources.**

RECOMMENDED STUDIES AND CAPITAL IMPROVEMENTS

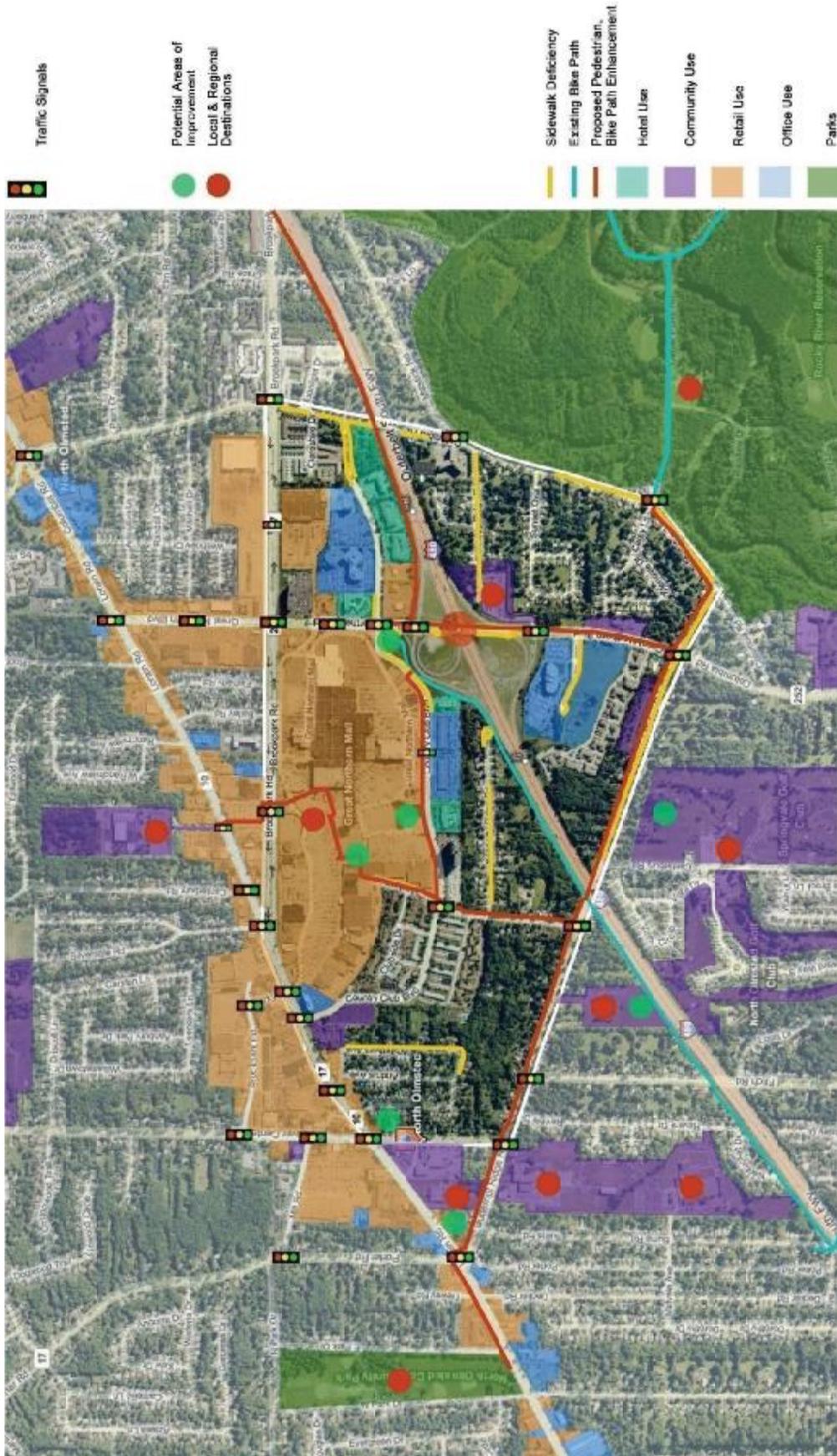
Study/Improvement	Priority	Benefit							Potential Funding Source										Rough Order of Magnitude Cost Estimate					
		Improve Safety	Reduce Congestion	Improve Connectivity	Improve Energy Efficiency	Reduce Pollution	Promote Alternative Transportation	Improve Aesthetics	City of North Olmsted	ODOT/FHWA	Ohio Public Works Commission (OPWC)	NOACA	Cuyahoga County Engineer	Cuyahoga County Board of Health	GCRTA	CDBG	EPA	Clean Ohio Fund		Riparian Coordinator	Coastal Management Fund	Nature Works	Private Property Owners	
Studies																								
Great Northern Blvd Safety Audit	In Progress	•	•																					\$10,000
Traffic Signal Timing Study (Lorain Road)	Short Term	•	•		•																			\$30,000
Speed Limit Reduction Study (Butternut Ridge Road)	Short Term	•	•		•																			\$30,000
Bus Shelter Feasibility Study	Mid Term	•	•		•																			\$10,000
Transportation System Capital Improvements																								
Butternut Ridge Road Bike Path & Streetscape Improvements	Mid Term	•	•		•																			\$5,500,000
Country Club Blvd Streetscape Improvements	Mid Term	•	•		•																			\$2,000,000
Extension of Great Northern Blvd Southbound Lane to I-480 West	Mid Term	•	•		•																			\$300,000
Sidewalk Improvements	Mid Term	•	•		•																			\$450,000
Install New Transit Waiting Environments	Long Term	•	•		•																			\$10,000 ea.
Comprehensive Sign Plan	Long Term	•	•		•																			\$60,000
Parks & Open Space Capital Improvements																								
Butternut Ridge Cemetery Improvements	In Progress																							\$100,000
Bike Path Improvements	Short Term	•	•		•																			\$80,000
Great Northern Blvd/I-480 Gateway Improvements	Mid Term	•	•		•																			\$50,000
Springvale Park Improvements	Long Term																							\$250,000
Trailhead Park Improvements	Long Term																							\$300,000

Short Term: <1 Year
 Mid Term: 1-3 Years
 Long Term: 3+ Years

PEDESTRIAN DISCONNECT MAP (Refer to fig. 24 page 17)



BICYCLE AND PEDESTRIAN IMPROVEMENTS MAP (Refer to fig. 27 page 18)



Acknowledgements

Steering Committee

Paul Barker, Ward II Council Member
Nicole Dailey Jones, Ward III Council Member
Don Rerko, Planning & Design Commission
Greg Malone, Planning & Design Commission
Melissa Meredith, Planning & Design Commission
Maryellen Davis, Landmarks Commission
Duane Limpert, Service Director
Bud Becker
Pat Graham
Terry Groden
Eugenia Gyi
Tim Ulewicz

Technical Advisory Committee

Mayor Thomas O'Grady, City of North Olmsted
Kim Wenger, City of North Olmsted
Michelle Johnson, NOACA
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John Motl, ODOT
Melinda Bartizal, ODOT
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