



MOREHEAD WEST AREA PLAN



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The plan was prepared for the

TOWN OF
HARRISBURG

in partnership with
CABARRUS
COUNTY

Adopted
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INTRODUCTION

About Harrisburg

Located near Charlotte, Harrisburg is a growing suburban community in western part of Cabarrus County, and it sits directly in the path of future metropolitan growth. It is known regionally as a great place to live and raise a family. It is in close proximity to the University of North Carolina at Charlotte and the Charlotte Motor Speedway (CMS). Also, it is a 30-minute drive from Uptown Charlotte and is within five miles of I-485, which connects to I-85 and I-77. The quality of life it offers and its position in the region are just two attributes that make this town an ideal location for people of all ages and a wide variety of businesses. In recent years, it has been attracting mostly residential development. In fact, the population has grown to more than 15,000, an increase of over 200% since 2000. With the completion of I-485 beltway around Charlotte, it is becoming increasingly more appealing to businesses.

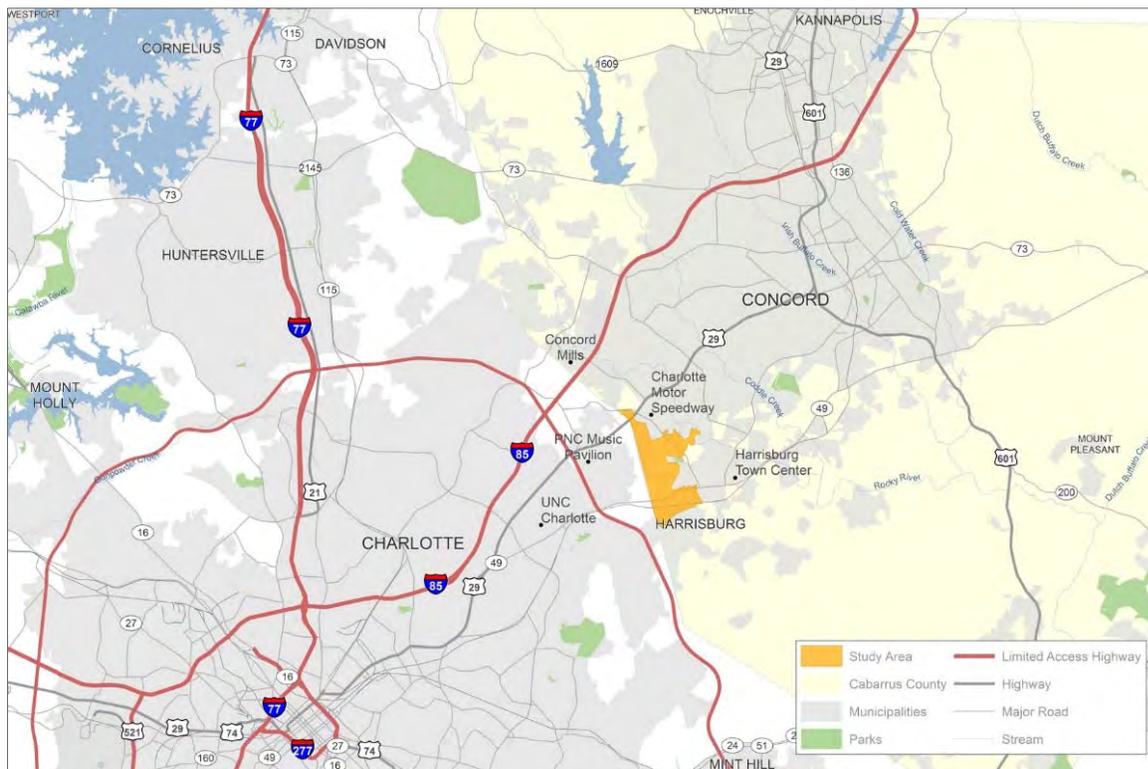


Figure I. Context Map

The Study Area: Morehead West

What is the Morehead West Area?

The area referred to as “Morehead West” is a subarea of Harrisburg situated between Morehead Road and the western boundary of Cabarrus County. With more than 1,600 acres, it generally stretches from US-29 in the north to Back Creek in the south. While most of the area lies within Harrisburg’s jurisdiction, some parcels are within Cabarrus County’s jurisdiction.

Accessible from NC-49 and US-29, which sit atop ridges, the Morehead West Area is the western gateway into the town. Upon entering the town on the west side, visitors are immediately met by commercial development, which includes a mixture of race shops, retail establishments, office uses, and services that benefit from highway accessibility. Some less visible parts of the area have been developed for industrial uses, including Blue Dot Read-Mix and Pepsi on the south side of NC-49. Other development in the area is comprised of residential homes, institutional uses, professional offices and small businesses. Though the area appears from vantage points along the NC-49 to be built out, approximately 74% of the area remains undeveloped. (Refer to Appendix A for Existing Land Use and Existing Zoning Maps).

The undeveloped areas are a combination of open lands and forests in different stages of succession. Some of the open lands are evidence of the area’s agricultural past. Large swaths of land were farmed until the 1960s. During the 1970s, some of those areas began to transition back to forest. Other open lands are the remnants of clearing and grading activities conducted in



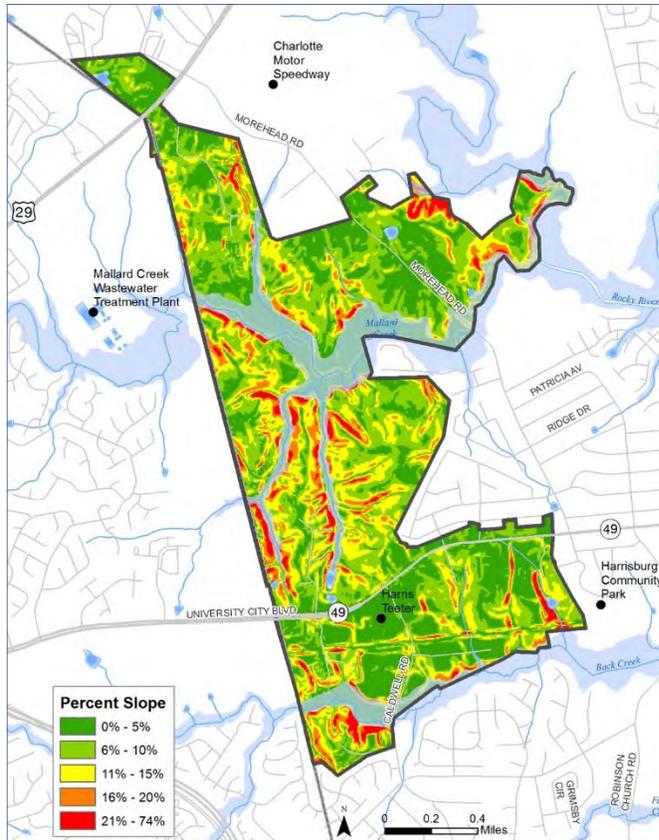


Figure 2. Steep Slope Map

connection with a planned development that never came to fruition. The largest blocks of mature forest are located in the eastern portion of the study area abutting the neighborhoods that front Morehead Road (Timber Forest, Whitefield Manor, and Valhalla) and in the floodplain adjacent to Mallard Creek. The Mallard Creek floodplain, a defining natural feature in the landscape, is exceptionally wide, exceeding 800 feet in width at a few points. As shown in Figure 2, the area's rolling terrain has steep slopes (greater than 15%) that together account for approximately 130 acres of the study area. The steepest slopes are located adjacent to streams and drainage ways, which are also the locations of important habitats. Here, the Natural Heritage Program has documented the occurrence of the Carolina Darter and Eastern Lampmussel. (Refer to Appendix A for Existing Natural Features Map).

Why is it mostly undeveloped?

This western edge of the town is relatively undeveloped due primarily to environmental constraints and the lack of infrastructure. A road network that would provide sufficient access to the area, particularly with a north-south arterial road that would directly connect NC-49 and US-29, is needed. Steep slopes, creeks, and floodplains are among the features that make development, including roadway construction, challenging. Serving this area with water and sewer is also problematic given the physical characteristics of the area. Further hindering development in the area is the zoning applicable to 753 acres, which constitutes 52% of the available land in the study area. The Planned Unit Development (PUD) zoning district has special conditions attached to it that must be met before development—or the permitting of it—can commence. So, rezoning is required to develop parcels in the PUD district. Given the constraints of physical features, infrastructure, and zoning, sites here require more upfront investment to develop relative to other potential development sites in the region.

What could this area be in the future?

Almost 1,000 acres are available for future development and redevelopment. Assuming environmental constraints can be overcome and issues associated with the provision of infrastructure and zoning can be addressed, the Morehead West Area has an opportunity to develop for a variety of uses, which could help the Town achieve a more balanced tax base. More importantly, future development could meet the needs and expectations of existing and future residents in terms of living, shopping, dining, entertainment, and employment options. There is also an opportunity to make a statement about Harrisburg at its doorstep, establishing a distinct identity for the town and creating an inviting place through the design and configuration of development as well as the conservation and integration of open space, being sensitive to the natural and built environment. As shown in Figure 3, when asked what would make the area more attractive, almost 40% of respondents indicated that “quality development” is key.

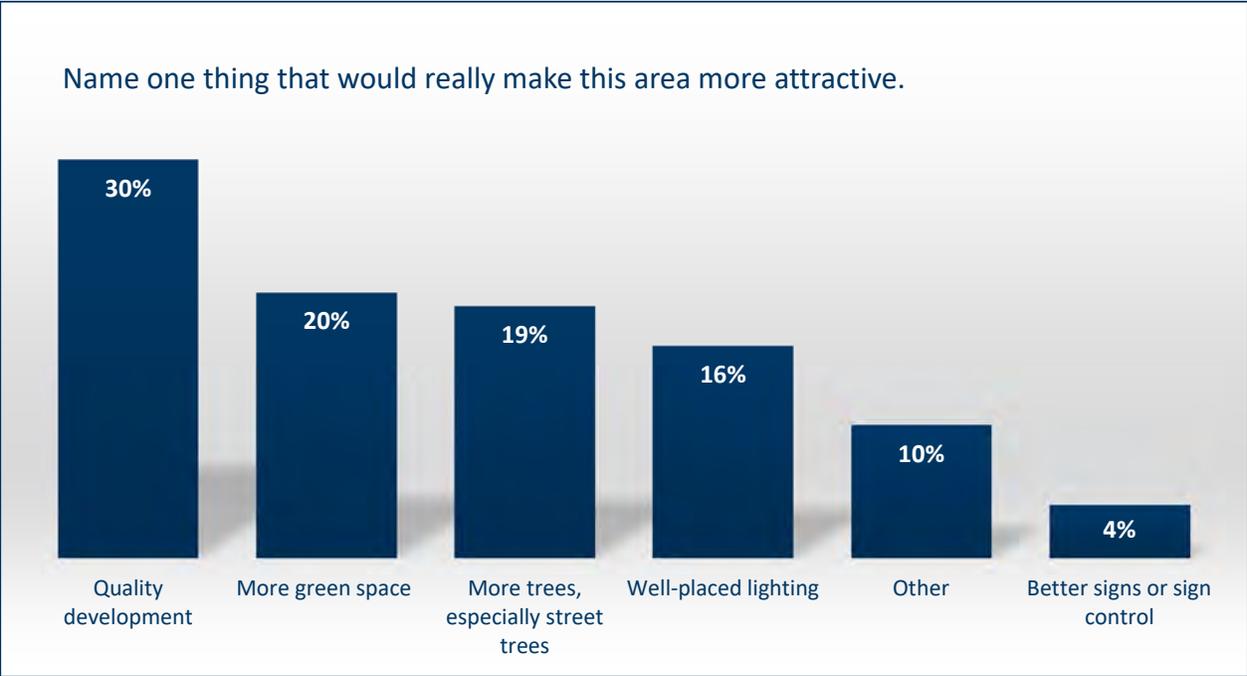


Figure 3. Survey Response

The following highlights some specific uses that, based on the existing conditions and market trends, could be supported in the area over the next twenty years. (Refer to Appendix A for more information about existing conditions and the suitability of the area for residential, commercial, and industrial uses.)

For-Sale Residential

CONDITIONS:

- Nationally, buyers are favoring more walkable, convenient locations
- Boomers are looking for something different
 - Harrisburg is attractive for its low taxes, good schools, and low density
- Harrisburg currently functions as a bedroom community to Charlotte (83% large-lot, single-family detached)

OPPORTUNITIES:

- Greater variety:
 - Small lot single-family (patio homes)
 - Townhomes
 - Condominiums
 - Senior Living
- Utilize natural setting and orient new neighborhoods to creeks and planned greenways (Carolina Thread Trail, Cross Charlotte Trail)



Rental Residential

CONDITIONS:

- Rental market is very healthy nationally, fueled by Millennials (unable/unwilling to own) and Empty Nesters (desire for simplified lifestyle and convenience)
- Northeast Mecklenburg performing well (adding 500 units/year, low vacancies)
- Harrisburg is largely lacking rental units (only 541 units, extremely low vacancy rates, dated product)

OPPORTUNITIES:

- Apartments and independent living for 55+



Commercial



Retail

CONDITIONS:

- Market is trending toward more walkable environments in dynamic locations
- Internet shopping impacting 'brick-and-mortar' stores
- Challenging environment for significant retail (nearby destination retail, and access issues due to railroad, CMS, and landfill)

OPPORTUNITIES:

- More local-serving retail driven by population growth, and ongoing opportunities along NC-49
- Near-term demand 22,000 SF, long-term demand 10,000 SF annually
- Family-themed retail with playground/children's amenities



Office

CONDITIONS:

- Office trending toward more lifestyle-driven locations: small offices in village centers to larger offices in walkable, mixed-use developments
- Northeast Charlotte Metro largely lacking walkable, mixed-use developments
- Harrisburg is largely lacking office uses and demand)

OPPORTUNITIES:

- New office on NC-49
- Near-term demand 6,000 SF, long-term demand up to 30,000 SF annually
- Mostly local-serving users: accountants, builders, lawyers



Light Industrial

CONDITIONS:

- Strongest activity regionally and nationally is along interstate system (I-85 is a major distribution corridor in the Southeast, and the strongest in Charlotte region)
- The Morehead West Area is less than 5 miles from an interstate highway (the furthest distance firms will locate)
- Market for manufacturing is improving, but warehouse and distribution are dominant growth markets

OPPORTUNITIES:

- Light industrial in close proximity to US-29
 - Compatible use to CMS
 - Focus on auto-related research & manufacturing
- Light industrial south of NC-49 (though more limited than US-29 due to distance from and connectivity to I-85)
- Long-term demand 30,000 – 40,000 SF annually



The Area Plan

What is the purpose of this Plan?

As development pressure increases with regional growth, the Town of Harrisburg and Cabarrus County are facing more frequent requests for development approvals and must make important decisions regarding such approvals as well as investments in public infrastructure and services. Town and County leaders chose to partner to study the Morehead West Area to define a vision for the future along with a policy guide that would inform those critical decisions.

The resulting plan had to identify areas to accommodate the kind of development the community desires while conserving some natural resources; take into account the preferences of property owners as well as market conditions; and inform Town leaders' decisions about public infrastructure investments. Laying the groundwork to create an attractive gateway into the town was also a key objective of effort. In addition to accomplishing the Town's objectives, the Morehead West Area Plan describes ways to ensure long-term economic viability of the area. The Area Plan also promotes quality development punctuated by natural areas to retain native vegetation, support wildlife, protect water quality, and expand the range of recreational amenities in the town.

PROJECT OBJECTIVES

Town Objective:

Ensure economic vitality of the Town

Plan Objectives:

Determine the highest and best use

*

Develop a 20-year VISION for future development

*

Make recommendations regarding future development, infrastructure, development regulations, and policies

How was the Plan developed?

This Plan is the culmination of a 10-month planning process that involved three phases. The engagement of citizens, property owners, and other interested stakeholders to help craft the Plan was paramount. Therefore, the process included community and stakeholder meetings, a web page to disseminate information and solicit feedback, and an online survey to gather qualitative data. (Refer to Appendix B for more information.) Some of the recurring themes of the input recorded throughout the process included the following:

- Quality development
- More dining options
- Open space conservation
- Recreation, especially trails and passive recreation
- Employment (increase job opportunities in Harrisburg)
- More entertainment, things for families to do
- Fewer traffic issues



Figure 4. Planning Process



THE OTHER “TOD”

Trail-oriented development suggests development faces and embraces the greenway trail. Instead of a dividing line to which development turns its back, the Mallard Creek Greenway corridor becomes a center of activity. It is the glue, binding the northern and southern parts of the Morehead West Area.



DESTINATION FUN

...For the whole family!
Entertainment and recreation options that appeal to residents as well as a tourists. A variety of complementary experiences will help keep this destination relevant for many years to come, and increase spending locally.

‘WESTERN GATEWAY’ VISION

The Vision

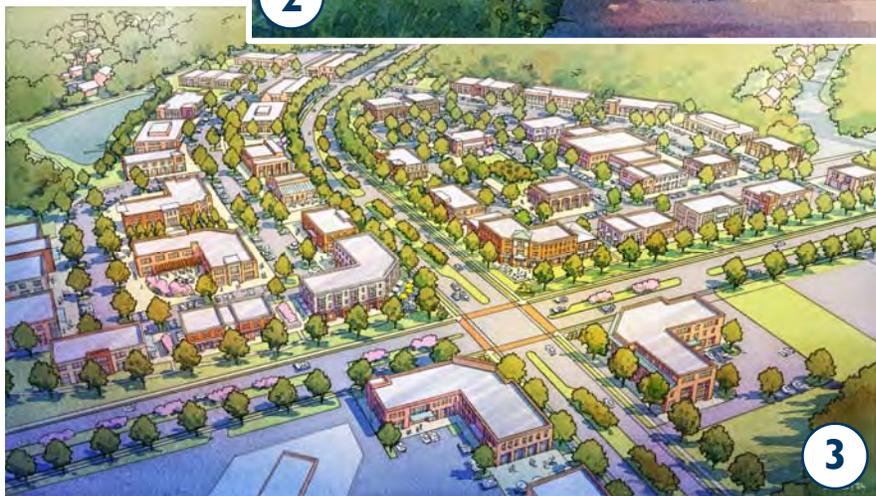
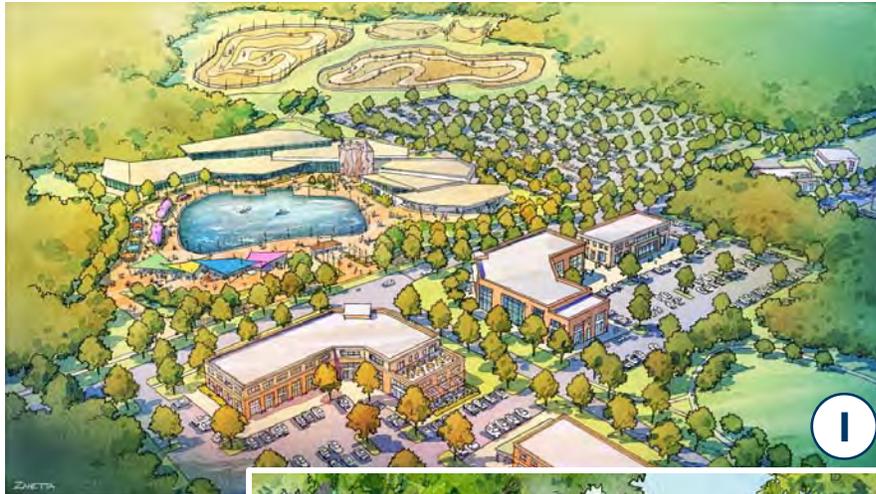
From a big-picture perspective, the Morehead West Area presents many opportunities for change that will benefit the Town and the County as a whole. **More than a good location for living and working, the area can offer a setting and a range of experiences that truly give definition to “quality of life.”** Some big ideas surfaced during the planning process that have guided the formulation of a Vision for Morehead West, the western gateway into the town. First, as a gateway, some very specific improvements could be made in the future that enhance the arrival experience. Second, bisected by a future segment of the regional Carolina Thread Trail (also an extension of the Cross Charlotte Trail), the area can become a point of interest along an expansive pedestrian-bike trail system. Third, the area could build on the success of the significant tourist attractions nearby and offer additional entertainment and recreation venues to be enjoyed by residents and visitors alike. Leveraging both public and private investments, the Town can proactively influence and shape future development to accomplish the stated objectives and, more importantly, create a special place within the region.

A BETTER FRONT DOOR

Changes to the streetscape of NC-49 and improving the aesthetic qualities of all development on the west side could create a sense of arrival that is welcoming. The entrance should set the tone, strongly promoting the quality and character for which the Town is known.



The community's desires and expectations regarding the future of the Morehead West Area are best described in terms of the subareas. Therefore, six geographies have been delineated. They are labeled A through F on the map shown in Figure 5. This section of the Plan describes the vision for each subarea.



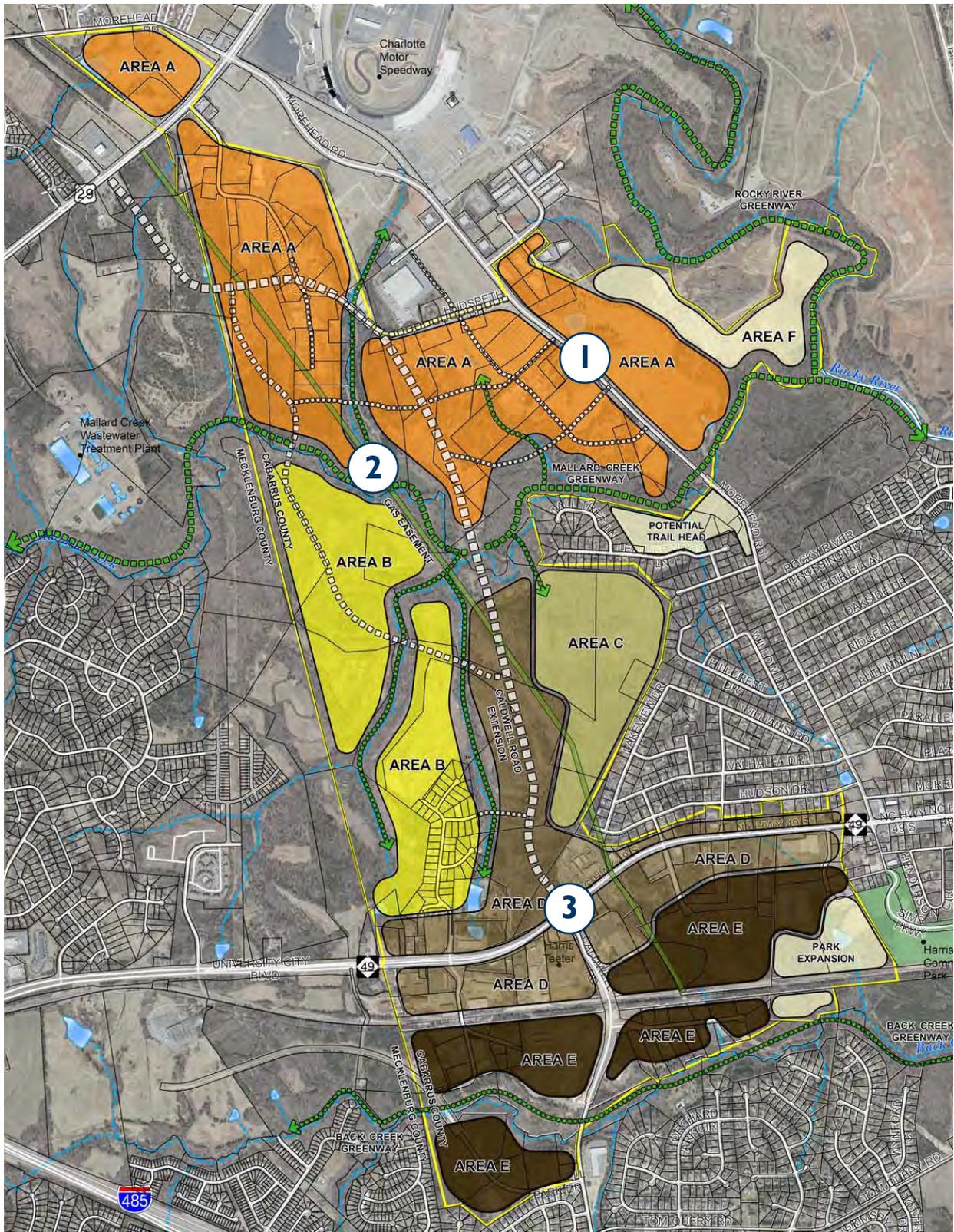


Figure 5. Subarea Map

Area A

The subarea north of Mallard Creek is accessible from US-29 and Morehead Road. As shown on the Industrial Suitability Map in Appendix A, this subarea is best suited for nonresidential uses. The connections to the interstate highway system via US-29 and Bruton Smith Boulevard are among the factors that make this area a particularly attractive location for light industrial development. Part of a regional destination area created by the Charlotte Motor Speedway and Concord Mills, this subarea is also suited for additional entertainment and recreation uses. Other uses that may be appropriate include supporting office, retail, restaurant, and hotel uses. Ideally, some of the offices, restaurants, and recreation uses will be situated in Area A to overlook and be accessible from the future Mallard Creek Greenway. In close proximity to the CMS, this subarea is not suitable for most types of residential uses, as the noise and traffic generated by some of the events at the CMS can be incompatible.



Conceptual Development Plan: Morehead Road at Hudspeth Road



**OFFICE,
LIGHT
INDUSTRIAL**

**RETAIL/
RESTAURANTS**

**MIXED-USE
RECREATION
CENTER**



LOCATION MAP

Area B

This subarea, which lies between Mallard Creek and US-49, has already begun to develop with single-family homes and more homes are envisioned. As shown on the Residential Suitability Map in Appendix A, this area is suitable for residential development. A collector road that links this area to US-29 to the north and to NC-49 to the south would provide sufficient connectivity and roadway capacity to support a mixed residential neighborhood. Depending on the level of infrastructure capacity in the future, other uses such as those described for Area A may be well suited for this area, particularly adjacent to Mallard Creek. Key to the successful development of the subarea is compatibility with existing development and the creation of a positive relationship to the future Mallard Creek Greenway. The emphasis for future development in Area B will be on design that locates and orients buildings so occupants can overlook the greenway, and use limitations that minimize and mitigate potential negative impacts (i.e., noise, lighting, and traffic).



Conceptual Development Plan: Development along Greenway



**RESIDENTIAL
OVERLOOKING
GREENWAY**

**OFFICE
FRONTING ON
GREENWAY**



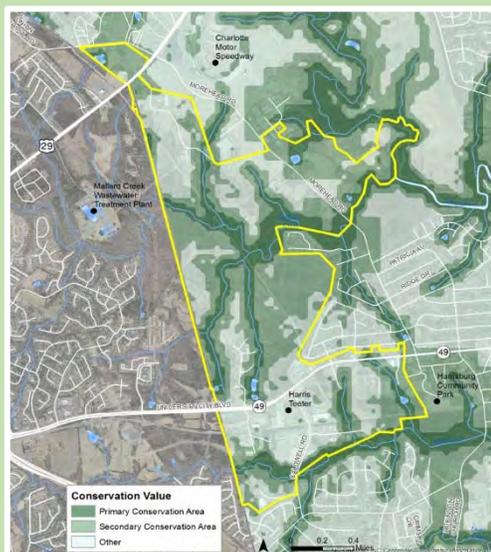
LOCATION MAP

Area C

This subarea adjoins the south side of the Mallard Creek corridor and is presently undeveloped. It contains some features that are among the most valued in the County, including a large stand of native mature hardwood forest. Conservation design provides an opportunity to conserve some of those features while integrating development. The lower gross density of this subarea could offset the more intense development envisioned for Area D. Here, single family homes (detached and attached) on lots that vary in size may be clustered in pockets and be complemented by natural areas protected through conservation easements. Positioned adjacent to the future Mallard Creek Greenway (and Carolina Thread Trail), a portion of this subarea could be utilized for a publicly-accessible nature preserve similar to the preserves that are components of the Mecklenburg County Parks system.



Butterfly Highway: The City of Concord and the Concord Wildlife Alliance (CWA) have taken the National Wildlife Federation's Mayors' Monarch Pledge. This pledge indicates that they are committed to take actions to help monarch butterflies and other pollinators. Monarch butterflies are found across the United States, but populations have plummeted by 90% in recent years due to habitat loss. Actions include creating new pollinator gardens, supporting citizen-science efforts for monitoring, and modifying city practices and regulations that support pollinator habitat (i.e., mowing programs on publicly-owned lands).



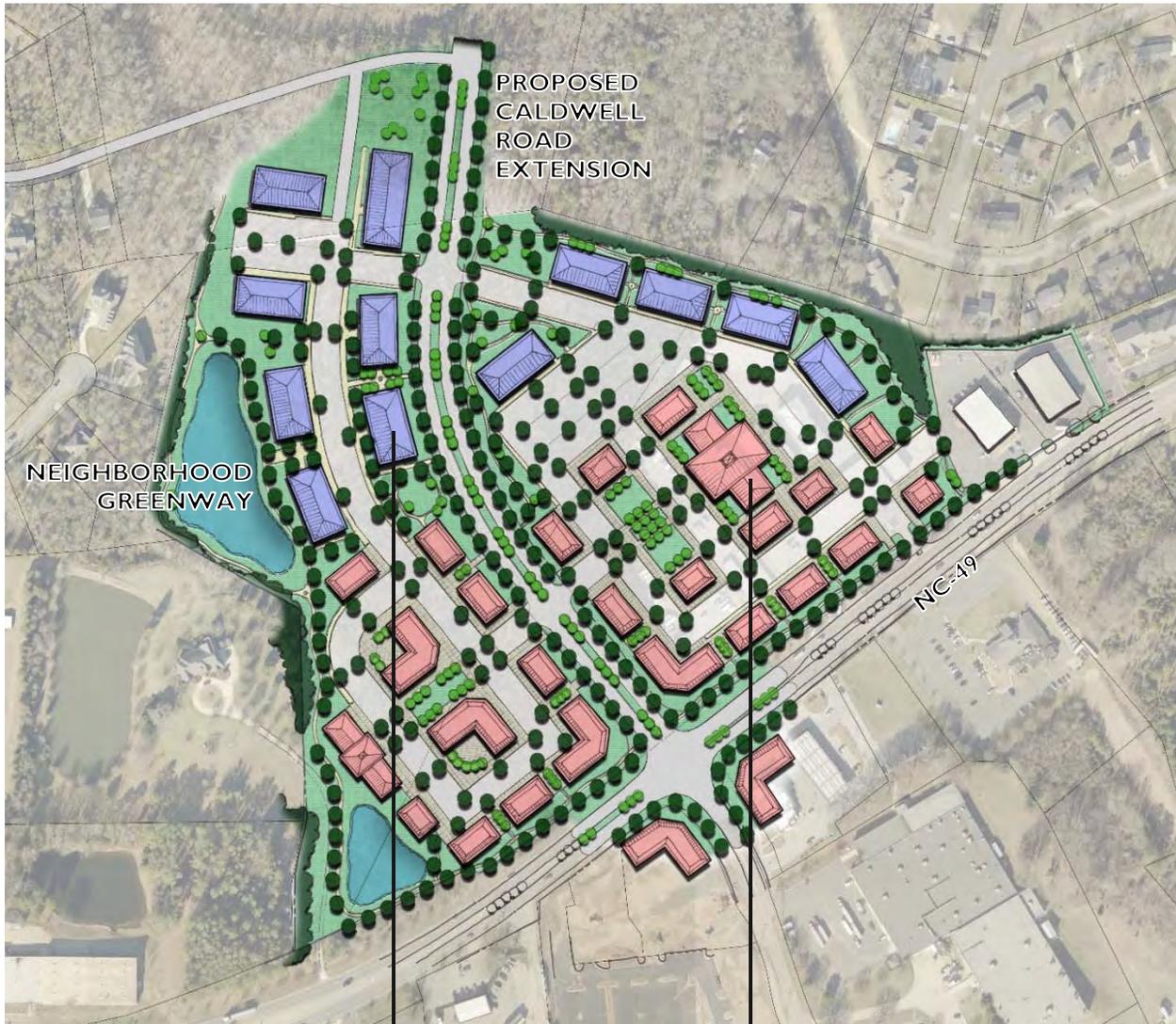
Partners for Green Growth Project: Cabarrus County SWCD and NC Wildlife Resources Commission recently partnered to map the natural resources in the county and develop a model conservation ordinance for the County and the municipalities to use in updating local development codes.

Area D

Area D encompasses the NC-49 corridor as well as the future Caldwell Road Extension corridor. A mix of uses and quality development offer a new shopping and dining destination within walking distance of surrounding neighborhoods. The intersection of NC-49 and Caldwell Road, with the new Harris Teeter shopping center in the south side and vacant and underutilized land on the north side, is an ideal location for future commercial uses organized around an internal network of local streets and private drives. Here, the positioning of 2- and 3-story buildings, flanked by a well-designed streetscape, can create a center of activity that is both functional and welcoming. Traffic is improved by local trips diverting to the local network, thereby reducing turning movements along NC-49. Businesses benefit from the synergy created by close proximity to one another. The streetscape frames views and incorporates furnishings, signs and lighting to create a sense of arrival into Harrisburg. A mix of housing types could be accommodated to meet the increasing demand for “empty nester” housing units, which include patio homes, townhomes, condominiums, and other multi-family products.



Conceptual Development Plan: NC-49 and Caldwell Road Extension



NEIGHBORHOOD GREENWAY

PROPOSED CALDWELL ROAD EXTENSION

NC-49

OFFICE

MIXED-USE
RETAIL/
RESTAURANTS/
OFFICE



LOCATION MAP

Conceptual Development Plan: Residential along Caldwell Road Ext.



LOCATION MAP

OFFICE

**MIXED
RESIDENTIAL**

Area E

As shown on the Industrial Suitability Map in Appendix A, this subarea is appropriate for industrial development. Through future infill, redevelopment, and business expansion, this subarea is expected to continue to be a preferred location for light industrial development along with supporting uses. Light manufacturing and distribution will be the predominant uses, as sites here have reasonable access to regional highway and rail networks.

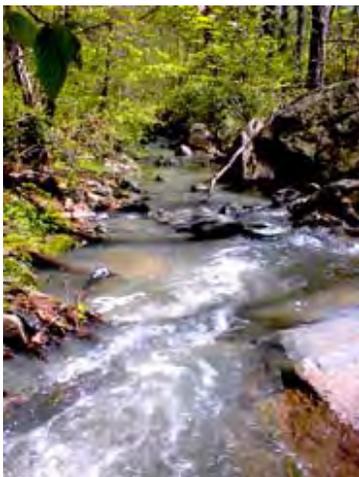


Area F

Some land in the Morehead West Area is suitable for additional recreation opportunities. On the north side, the land that is currently being used as a borrow pit for the nearby landfill could lend itself to a wide variety of private and public recreation uses, including bike tracks. A logical transitional use between the Charlotte Motor Speedway and neighborhoods to the south, utilization of this land for private recreation activities would enhance this already popular tourist destination.

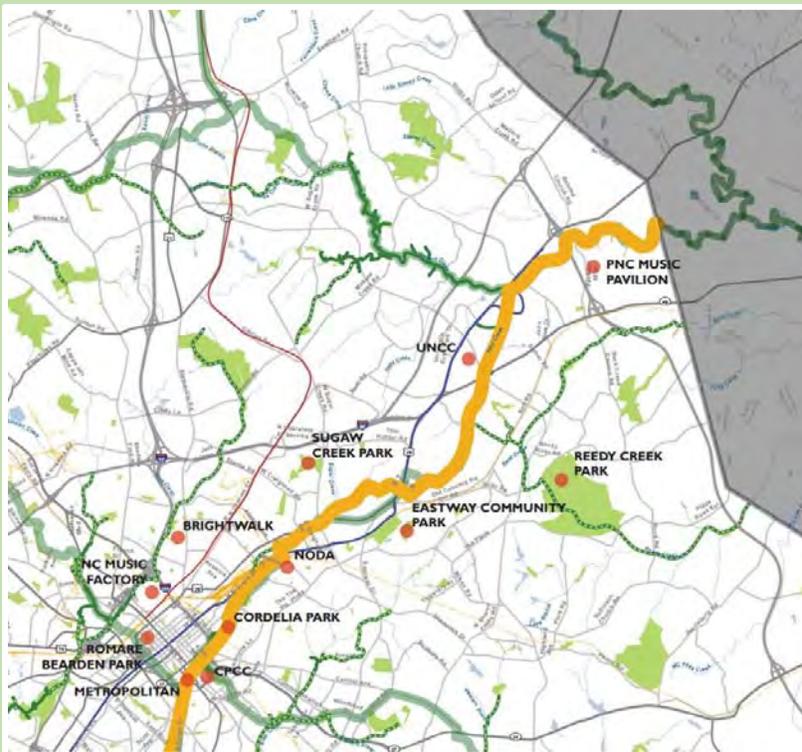
On the south side of the Morehead West Area, land that lies just west of the existing Harrisburg Park presents an opportunity for expansion. The additional land could support ballfields, satisfying some unmet demand. In addition, with improvements, this expanded park area could support community events.

Situated along the planned greenway trail routes, these areas could function as unique recreational destinations along to the regional trail network.



Regional Greenway Trail Planning Efforts

Carolina Thread Trail (CTT): A planned network of greenway trails is being implemented at the local level to create the regional system. When complete, this network will be comprised of more than 1,500 miles of trails connecting 2.3 million people and 40 destinations across 15 counties. Approximately 100 miles of CTT are planned for Cabarrus County. One segment will follow Mallard Creek through the Morehead West Area, linking the Cross Charlotte Trail to the Rocky River Greenway.



Cross Charlotte Trail (XCLT): The City of Charlotte and Mecklenburg County have partnered to implement a 26-mile multi-use path that will extend across the county. It will follow the existing Little Sugar Creek Greenway and, when complete, will be a primary route of the Carolina Thread Trail. Connecting to Harrisburg along Mallard Creek, it will provide a direct link from Harrisburg to Center City Charlotte.

Future Land Use

Land Use Overview

The future development pattern is envisioned to include a broad range of uses introduced over time through new development and redevelopment. The uses are those that are expected based on market conditions as well as some that, through proactive measures on the part of the Town, its partners, and private investors, may be recruited to Harrisburg.

The Future Land Use Map (Figure 6) is a depiction of the intended distribution of uses in the Morehead West Area. Unlike a zoning map, it is general. It shows the predominant land use in each area and is not specific to parcels. It is intended to convey a policy direction without being prescriptive. However, it serves as input into decisions regarding the zoning of parcels and therefore helps inform decision about development, particularly with regard to zoning matters. It also informs decisions about investments in public infrastructure and services, including the prioritization of capital expenditures.



Future Land Use Map

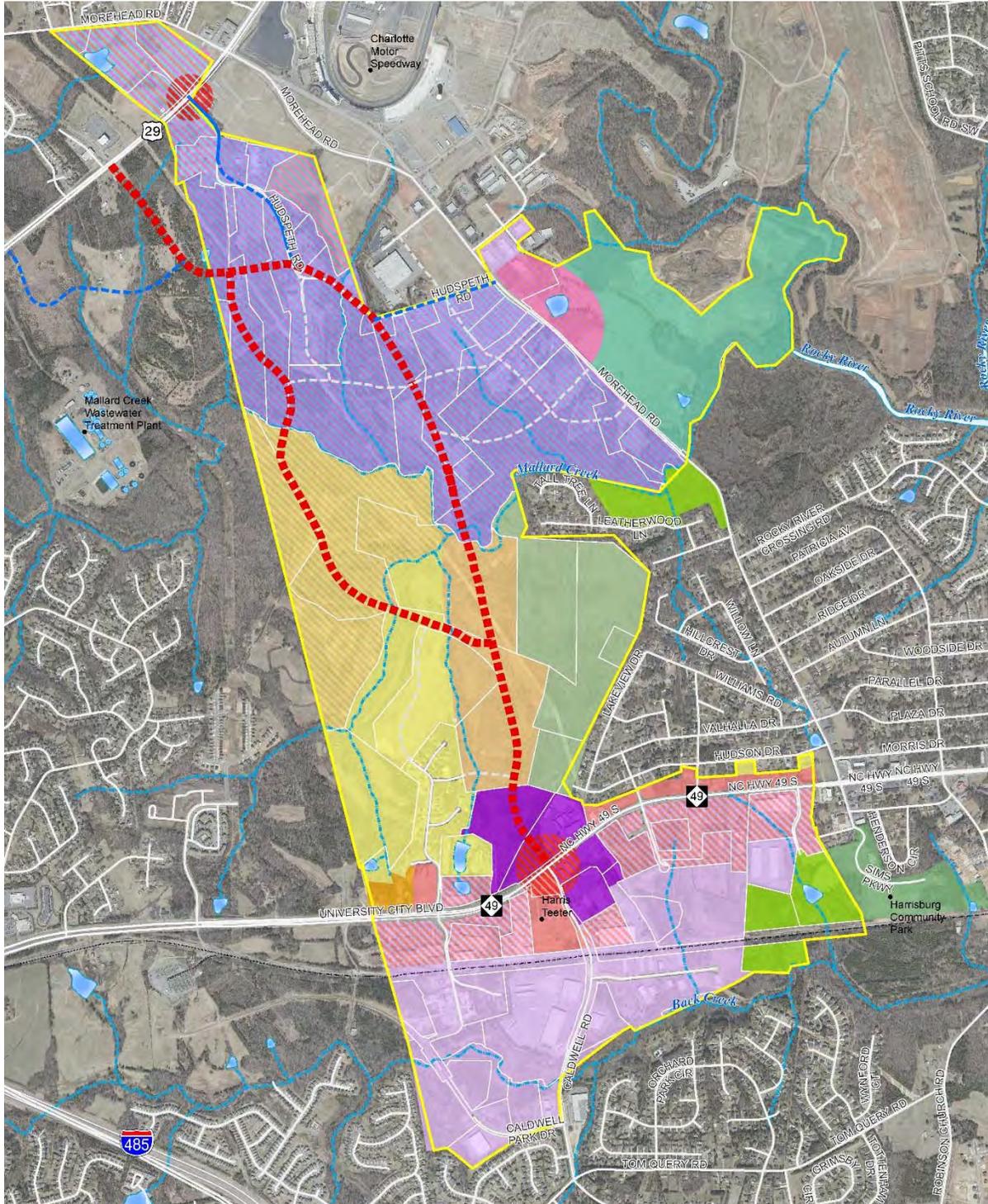


Figure 6. Future Land Use Map

Land Use Categories



Parks and Recreation. Various types of passive and active parks and other recreation facilities may be accommodated in all land use categories. Where depicted on the Future Land Use Map, such areas may be developed as community-serving facilities, such as public greenways or a regional recreation destination that could be privately funded, owned, and/or operated.



Very Low Density Residential. This area is intended to remain predominantly rural in character while allowing residential uses to occur at very low densities (less than 2 units per acre). Conservation design is a common subdivision approach, allowing smaller units and lots provided gross density is not exceeded. Architecture is sensitively integrated into the landscape as valuable natural features are avoided.



Low Density Residential. Characterized by low- to moderate-density residential development (2 to 3 dwelling units per acre), single-family detached homes are complemented by natural areas as well as formal and informal open space amenities.



Medium Density Residential. This area is comprised of predominantly single-family detached homes but may include attached single family units, such as townhomes and duplexes. The mix of housing types are intended to create neighborhoods with a density range of 3 to 4 dwelling units per acre. Improved open spaces are interspersed and the streetscape is more formal.



High Density Residential. Accommodating a variety of age groups and lifestyle preferences, attached single family and multi-family units are intended for areas where access to the transportation network is high. Density ranges from 4 to 15 dwelling units per acre.



Commercial. Local-serving retailers, restaurants, professional offices, and service uses comprise these areas. Such uses may be vertically mixed in multi-story buildings. All such uses may be concentrated at key intersections to facilitate the creation of a walkable destination.



Office. While office may be a component of commercial areas, this use may be located in areas devoted to employment uses. Stand-alone and multi-tenant buildings provide a compatible transition to residential neighborhoods and open space areas.



Entertainment / Recreation. Indoor and outdoor recreation facilities are suited to sites with adequate road infrastructure. Indoor sports arenas, family-oriented entertainment, and special-use outdoor venues are examples of the types of uses that may comprise these areas.



Hospitality. Lodging is intended for areas with adequate road infrastructure, and may be provided to address demand created by tourism as well as business travel. Such uses, therefore, may be located with access to the US-29 corridor in close proximity to future entertainment, recreation, and business uses.



Mixed Use. This area encourages the blending of complementary commercial and higher density residential uses. Designed to facilitate walking and biking, mixed-use areas should also be located at key commercial nodes where access via the road network, greenways, and transit is feasible.



Light Industrial. With light industrial, office, and multi-tenant flex space, this area is intended to promote the concentration of employment-generating uses in an area with desirable access to highways (I-485 via NC-49). Limitations on use should serve to mitigate negative impacts on residential development, such as traffic congestion, noise, and light pollution.



THE PATH FORWARD

Key Initiatives

The following three initiatives have been identified as the top priorities for the Town. Early plan implementation efforts should be focused on these initiatives to ensure steps toward meeting the stated objectives are being taken.

Rezoning: Parcels in Planned Unit Development (PUD) District

The Town should facilitate development consistent with this Plan by initiating the rezoning of parcels in the Morehead West Area that were previously zoned to the PUD district. Refer to the Land Use + Development Design section for more specific recommendations.

Feasibility Study: Caldwell Road Extension

The extension of Caldwell Road north of NC-49 to connect to US-29 is important for the western area of Cabarrus County. In addition to making land in the Morehead West Area more accessible, better traffic flow could be accomplished. This Plan identifies two reasonable options for the extension. However, a more detailed feasibility study would be needed to more precisely and reliably estimate probable costs associated with potential future alignments and to determine if one is a more suitable alternative. This feasibility study should determine structure needs for stream crossings, provide more exact alignments based on curve and grading needs, estimate earthwork quantities, develop intersection geometries, and provide detailed cost estimates. Refer to the Mobility section for more specific recommendations regarding the future Caldwell Road extension.

Corridor Plan: NC-49

In collaboration with NCDOT and as part of a detailed study of the corridor through Harrisburg's jurisdiction, the Town should prepare a plan that addresses aesthetics and operations of NC-49. As explained in recommendations in the Land Use + Development Design, Economic Development, and Mobility sections, this study should examine a range of potential changes to reduce traffic congestion, improve safety, maintain the function of the roadway, and improve the appearance of the town's front door.

Recommendations + Strategies

Land Use + Development Design

Present a positive image of the town at the Western Gateway into Harrisburg.

- Ensure a higher level of quality in all future development.
 - Review and amend the Town’s Unified Development Ordinance and other applicable development codes as necessary to maintain or improve the quality of architecture, landscaping, and other details in new development, expansions, and redevelopment.
 - Through the conditional rezoning process, encourage a higher level of investment in façade treatments (articulation, fenestration, materials, finishes, etc.), landscaping, site furnishings (benches, lighting, etc.), and other elements that are visible from public streets or other public vantage points, than applicable codes require.
 - Lead by example. Examine the Town’s policies, procedures, and practices in terms of the design and maintenance of public facilities and spaces. Prepare a set of design guidelines to describe specifically a set of standards for the Town to follow to ensure the consistent application of agreed upon standards to all public spaces as they are developed and/or improved.



Ceres Design Guidelines

CASE STUDY: Design Guidelines

A set of guidelines were developed for the City of Ceres, California, to provide a framework for property owners, design professionals, and City staff to follow. The framework encourages consistency across properties—public and private—to ensure a unified, cohesive appearance.

- Improve the appearance of the NC-49 corridor.
 - “Green” the corridor.
 - In collaboration with NCDOT and as part of a detailed study of the corridor to address access management and streetscape.
 - Prepare a streetscape design concept to introduce more landscaping along NC-49, such as street trees along the edges and trees or shrubs in new medians.



Figure 7. Cross-section of 4-Lane Divided Complete Street

- Pursue adequate funding and implement the proposed streetscape improvements through more detailed design and construction.
- Facilitate additional “greening” of the corridor. Provide incentives, such as additional points in the scoring of site improvements grant applications, for property owners supplementing planting in the public rights-of-way. Improvements that include planting trees and low shrubs within private property boundaries adjacent to public rights-of-way where streetscape improvements are planned or have been completed should be encouraged.
 - Prepare Streetscape Design Guidelines to guide publicly- and privately-funded aesthetic enhancements to the road corridor and encourage improvements beyond the right-of-way.
- Architecture – Establish design guidelines, and priority approval for façade grants to applicants adhering to the guidelines. Consider expanding the area of eligible properties for façade and site improvement grants.
- Signs – Establish a sign detail and encourage businesses to utilize it in return for increased sign size (above the permitted size).
- Lighting – Continue the lighting along NC-49, following the standard previously established by the Public Works Department.

Balance development and conservation interests.

- Conserve environmentally important areas within the study area.
 - Build on the recent efforts of the Cabarrus County Soil and Water Conservation District (CCSWCD) and NC Wildlife Resources Commission (NCWRC) to identify important natural resources in the county.
 - Utilize the natural resource database and maps maintained by the County to educate developers and inform them of opportunities to protect the natural assets valued by the community and mitigate or minimize the impacts of development on the protected areas.
 - Consider amendments to the Town's UDO to incorporate provisions of the Model Ordinance resulting from the CCSWCD/NCWRC Partners for Green Growth Project. Such provisions should reward those who choose to develop using a conservation design approach.
 - To the extent practical, assist property owners who have expressed an interest in conserving land for natural resource protection purposes. Such land may be protected by a conservation easement, and may be suitable for the creation of a publicly accessible nature preserve adjoining the planned Mallard Creek Greenway. In addition to providing assistance with the establishment of an easement, the Town or the County may have an opportunity to facilitate the creation of a nature preserve.





Using a conservation design approach (right), the same number of units allowed in conventional subdivision design (left) can be sensitively integrated into the natural environment. (Image source: Randall Arendt)

- Integrate open space into the built environment in a meaningful way.
 - Work with the Carolina Thread Trail, the City of Charlotte, Mecklenburg County, private property owners, developers, and local park and recreation departments to design the planned Mallard Creek Greenway in a manner that orients development toward the trail.
 - Encourage the other TOD: Trail-Oriented Development. In this TOD, development is oriented toward the greenway, much like a positive relationship of buildings to a street. Create a positive edge, as development “embraces” the corridor and the greenway and connecting trails provide access to points of interest or destinations along the route. The trail corridor should join, not separate, the northern and southern portions of the study area.
 - Modify standards for required open space.
 - Locate it to bring open space to the “front door” of the development as well as the structures within, affording the occupants direct physical and visual access to nature.
 - Allow improvements to natural areas so that such open space can be utilized for passive recreation, but set forth accepted methods for improving these areas for access to avoid unintended impacts. For example, make available an appropriate boardwalk design detail for use in environmentally sensitive areas.

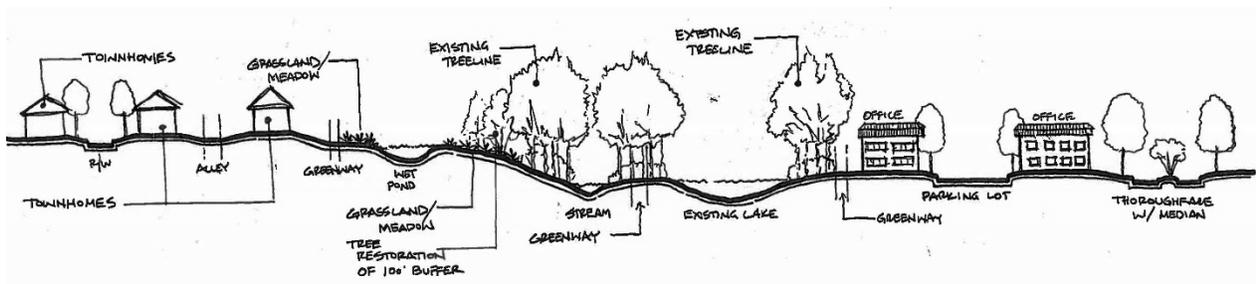


Figure 8. Cross-section of Greenway with Facing Development

Encourage a range of land uses in the Morehead West Area that are compatible with existing development and consistent with the Vision Plan and the Future Land Use Map.

➤ Area A

- Promote light industrial development. Flex space, warehousing, and precision manufacturing are three examples of the types of uses that, with infrastructure in place, are suitable for this area. Accommodate particularly those uses that can benefit from proximity to the Charlotte Motor Speedway and related businesses (i.e., aftermarket automotive performance part/product manufacturers and vendors).
- Recognizing the importance of the CMS area as a regional economic engine,
 - Accommodate motorsports-related activities and facilities.
 - Accommodate family-oriented entertainment uses and private recreation that expands the range of activities and entertainment for residents and visitors enjoying this important regional destination and keeps it relevant and competitive.
- Allow hospitality uses (hotels, lodging), restaurants, retail uses and other commercial development that satisfies the increased demand created by the other uses, events, and activities.
- Discourage residential development north of Mallard Creek. Residential uses are generally incompatible with motorsports-related activities. Residential uses, if developed in close proximity to the CMS, should be developed with the intent of creating a functional relationship with or as an accessory use to the motorsports-related development. For example, condominiums incorporated into a special driver training / performance school similar to Spring Mountain Motor Resort and Country Club in Nevada may be appropriate.
- Encourage a nonresidential edge on the north side of Mallard Creek Greenway that includes office, restaurant, entertainment, recreation, and other compatible uses. While there is a market for light industrial uses in the northern portion of the study area, components of such uses (i.e., loading docks) are not ideal greenway neighbors. Office, restaurant, entertainment, recreation uses are good neighbors, create destinations/points of interest along greenway, and ensure “eyes” are on the greenway, which is important for the security of users.





One Daytona

CASE STUDY: Motorsports Destination

ONE DAYTONA, developed by International Speedway Corporation (ISC), is being designed as “a place for visitors, race fans, and residents to live, work, stay, and play.” Opening in 2017, it will feature a 300,000-square-foot retail, dining and entertainment district, two hotels, and a residential apartment community. The development, located near Daytona International Speedway, will generate 10,000+ jobs and millions in tax revenue.

➤ Area B

- Allow low density residential development that is either single family detached units or a mix of housing types that do not exceed a gross density of three dwelling units per acre (DUA).
- If a north-south arterial road is constructed through this area providing direct connections to NC-49 and US-29, a mix of unit types at a higher maximum gross density (eight DUA) and may be considered.
- Other uses such as those described for Area A may be permitted, provided the potential negative impacts (such as noise, light, and traffic) are avoided or adequately mitigated, uses create a positive eyes-on-the-park relationship to the future greenway, and
 - There is sufficient infrastructure to support the proposed use(s); or
 - There is a demonstrated commitment to the provision of sufficient infrastructure to support the proposed use(s).

➤ Area C

- Encourage conservation of land, particularly areas with important natural resources. Some such land may be suitable for the creation of a publicly accessible nature preserve adjoining the planned Mallard Creek Greenway.
- Allow residential development that is compatible with conservation objectives. Examples of compatible development include estate lots, conservation lots, and conservation subdivisions.
- Allow open space protected in Area C in perpetuity through conservation easements or other mechanisms to satisfy open space requirements associated with new development in Area C provided the gross density of Area C does not exceed 2 DUA.



Colvard Farms

CASE STUDY: Conservation Design

Colvard Farms is a conservation design neighborhood in Cary, North Carolina. Located in the protected water supply watershed of Jordan Lake, this 300-acre development includes 40 homes integrated into more than 250 acres of open space.

➤ Area D

- Encourage a mixture of uses in the “node” of NC-49 and Caldwell Road. The range of uses to be supported include retail, restaurant, service, office, attached residential, and multi-family residential uses. In contrast to the Town Center, this area should be smaller in scale and comprised of local-serving businesses.
- Along the proposed Caldwell Road Extension, encourage a transition from the concentration of non-residential uses to residential uses, with such residential uses integrating a mix of housing types that together have a maximum gross density of 8 DUA.
- Consistent with the existing development fronting on NC-49, allow retail, office, and service uses as infill development and redevelopment along NC-49, provided access to such sites is consistent with access management policies proposed for NC-49 such as shared driveways.

- Area E
 - Encourage light industrial uses. While existing heavy industrial uses will likely remain in current locations, all new development (infill, redevelopment, and expansions) should be reserved for light industrial uses. Supporting commercial uses may be allowed provided such commercial development does not preclude the accommodation of job-generating uses.
- Area F
 - Encourage a variety of recreation uses. These uses may be public facilities, facilities that are privately owned and operated, or facilities developed, maintained, and operated through a public-private agreement. Responsibilities for operations and maintenance may also be assigned to a nonprofit organization.
 - Allow commercial uses as part of the mix, provided such uses are clearly subordinate to the recreation use(s).



The US National Whitewater Center offers a range of outdoor recreational activities and events organized around a building that houses shops and restaurants.



Circle City BMX

CASE STUDY: Recreation Operated by Nonprofit

Located in Dothan, Alabama, Circle City BMX boasts 1,147 feet of track. It is managed by a nonprofit organization and hosts national competitions.

Amend zoning in the Study Area to be consistent with the Future Land Use Plan Map.

- Support rezoning applications for changes in zoning that demonstrate the intent to implement the Vision and Future Land Use. (Refer to the Recommended Application of Zoning Districts table.)
 - Consider Town-initiated rezoning of parcels currently in the approved PUD in the Town’s jurisdiction. The conditions of the approved PUD require a traffic impact analysis and infrastructure improvements prior to the approval of any development within the PUD. The parcels that comprise the PUD have little or no opportunity to be developed without a single entity moving forward with the PUD development in accordance with the conditions of the approval, or without a change in zoning. Currently the parcels that comprise the PUD are not owned/controlled by a single entity; they are owned by various property owners. So, there is little opportunity for any individual owner to utilize a parcel for anything other than the existing use without rezoning. A change from PUD classification to another zoning classification (or classifications) that will facilitate development in accordance with the Future Land Use Plan Map will require the participation of the Town.
 - Rezone undeveloped parcels in Area A that are part of the PUD to RE or RL.
 - Rezone undeveloped parcels in Area B that are part of the PUD to RL.
 - Rezone undeveloped parcels in Area C that are part of the PUD to RE or AG.
 - Rezone undeveloped parcels in Area D that are part of the PUD to RM-1 or C-1.
 - Assign appropriate zoning districts to existing uses.
 - Support subsequent rezoning requests for changes in zoning consistent with the Future Land Use Map.
- Support modifications to the Town’s existing PID district in Area A to encourage a broader range of nonresidential uses over an expanded area. This would facilitate a seamless arrangement of uses in future development around the Charlotte Motor Speedway and help ensure the viability of this regional attraction, which affects Harrisburg, Concord, and the County’s economy. Development flanking the CMS that includes commercial, hospitality/lodging, entertainment, and recreational uses may help ensure this area remains nationally competitive as a top choice race and vacation destination. Standards to mitigate noise, light, traffic and other impacts on nearby residential development should be considered.
- Establish design standards that apply to development adjacent to the future Mallard Creek Greenway. This may be accomplished with an overlay district that requires development within a specified distance from the greenway corridor to orient toward the greenway, incorporate details into the sites that visually and physically connect development to the greenway, and limit noise, light, and other negative impacts on the enjoyment of the greenway.

Recommended Application of Zoning Districts

Proposed Future Land Use	Appropriate Zoning District(s) - Town	Appropriate Zoning District(s) - County*
AREA A		
Commercial, Entertainment, Hospitality/Lodging	C-2, C-1, B-1, CD, PID, MU (new)	LI, OI, LC, GC
Private Recreation	C-2, C-1, PID	LI, OI, LC, GC
Office	O-1, PID	OI, LI, GI, GC
Light Industrial	I-1, PID	LI
AREA B		
LDR	RL, RM-1, PID	AO, CR, LDR, MDR
MDR	RV, RM-1, PID	MDR, HDR
AREA C		
VLDR	RE, RL	AO, CR, LDR
AREA D		
Commercial	C-1, B-1, O-1	LC, GC, OI
Mixed Use	MU (new), C-1, B-1, O-1, PUD, TND	
HDR	RC, RV, C-2 (if existing and/or abutting NC-49)	HDR
MDR	RV	MDR, HDR
Light Industrial	I-1	LI
AREA E		
Light Industrial	I-1 (and I-2 for existing General Industrial)	LI
Commercial	C-2, C-1, B-1	LC, GC, OI
AREA F		
Recreation, Public	All Districts	All Districts
Recreation, Private	C-2, C-1, PID	GC, OI

*Development of parcels that are in Cabarrus County's jurisdiction will most likely require water and sewer service. Therefore, such parcels will likely be annexed into the Town of Harrisburg's jurisdiction and subject to Town zoning.

- Limit uses in Light Industrial district to industrial and other employment uses to avoid encroachment of institutional, residential, and other uses on existing businesses. This would also preserve the Town’s ability to attract and accommodate new—or expand existing—job-generating uses in locations where such businesses prefer to locate. Limit permitted commercial uses to existing uses and those that support the industrial uses.
- Consider the creation of new zoning districts to accommodate development that is consistent with the community’s vision for the area, as reflected in the Future Land Use Map.
 - Assess the need for a mixed-use district (MU) that can be utilized in key locations throughout Harrisburg. This district should enable a mix of compatible uses on large and small sites where adequate infrastructure is available or can be extended. The mix of uses can vary and may be all nonresidential uses. Residential uses would not be a required component of development in this district. If warranted as an alternative to a PUD or TND, provisions to consider include but are not limited to the following:
 - Minimum development site area: 5 acres
 - Mix of uses shall contain some nonresidential uses. Development shall not consist exclusively of residential uses.
 - Orientation of, and relationships between, buildings should eliminate need for buffers within development, particularly to separate residential and nonresidential uses.
 - Maximum building height: 50 feet
 - In Harrisburg’s jurisdiction, support the creation of other PID districts. The emphasis of any new PID district should be on flexibility in use provided specific performance standards set forth for the district are met. Such standards shall address the potential negative impacts of each permitted use on adjacent development (existing or future) or on the community as a whole to ensure such impacts (i.e., noise, light, and traffic) are avoided or sufficiently mitigated.

“A diverse housing stock is critical to maintaining lifecycle communities. For many older adults, the housing problem is not the need for on-site care, but rather, simply the need for a smaller, more easily maintained residence. Zoning ordinances need to be modified to increase the availability of **single story townhouses, apartments and condos** within single family zones.”

-- ARC / Community Housing Resource Center



Economic Development

Attract investment based on Harrisburg's position in the market and future potential.

- Employment growth potential is strongest (and most compatible) with land availability proximate to US-29, which offers superior regional access and a potential Charlotte Motor Speedway relationship.
 - Examine existing infrastructure in the northern portions of the study area and identify where gaps exist in infrastructure, including utilities, ingress & egress quality, amenities, and other factors important for new industrial, flex/service space, and potential auto-related industries.
 - Identify key properties targeted for industrial or other employment development and identify policies needed to protect these properties from development as land uses that do not particularly forward the Town's economic development efforts and balance housing and employment in the area.
 - Investigate opportunities to focus industrial/research efforts on the automotive and motorsports industry, fueled by the town's location adjacent to the CMS. This could include initiating research relationships with UNC-Charlotte via the Motorsports Engineering program (at the NC Motorsports and Automotive Research Center on campus), which promotes itself as "the first stop for employers hiring interns and entry level engineers." Also consider initiating relationships with NASCAR Tech in Mooresville, Clemson University's ICAR campus in Greenville, and NCSU's engineering programs in Raleigh.
- Further industrial efforts with better use of an industrial land supply inventory website that brokers and others can utilize to understand properties along and close to US-29 and those located along the rail line to the south of NC-49. Information should include entitlement status, parcel sizes, utilities available, useable acreage, access quality and route info, etc.
- Focus office recruiting and development efforts on smaller, local-serving office users, such as realtors, insurance agents, attorneys, accountants, dentists and other medical-related uses. Create focal point locations in the town that provide a quality lifestyle for these office users, including as part of mixed-use projects with retail uses, on small parks, etc.
- Understand retail needs and opportunities in the town, including the square feet of retail Harrisburg can support, the key locations where retail is suitable, and the means by which retail environments can be amenitized and/or themed (e.g. children's retail, farm or nature-based/oriented retail, dining core, etc.).
 - National averages provide for around 23 to 25 square feet of retail per capita, translating into total needs for around 340,000 SF of retail supportable by town residents alone (based on 2014 populations). (Refer to Appendix C: Retail Demand Analysis.) Some benchmark numbers to consider for new retail development:
 - A new 45,000 SF grocery store (full-size) requires around 3,600 households or 10,800 people (using Harrisburg's 3.13 people/household) to perform at national averages;
 - A full-size drug store would require around 4,400 people or 1,460 households; and

- A full-service (with alcohol) sit-down restaurant requires around 1,675 people or 560 households to perform at national averages.
- Focus retail efforts on more local-serving, neighborhood-type uses. Harrisburg lacks a major regional intersection, a factor related heavily to the rail line running parallel to NC-49 and larger uses near US-29, and is not well-positioned to compete as a regional retail destination.
- Locate any regional or entertainment destinations, including retail related to or supporting the CMS, along US-29 given its strong traffic counts and access from I-85 via Bruton Smith Boulevard.
- In addition to the potential auto and/or CMS-related employment/research opportunities, identify land uses that are both compatible with and supportive of the CMS, possibly including lodging, retail, event space, recreational facilities, etc. in a more unique, setting than the stand-alone uses developed to date.



Improve Harrisburg’s image and identity along NC Highway 49.

- Focus on the creation of gateways along Highway 49 to better indicate arrival into the town, including monumentation and landscaping, and potential revolving banner programs tied to seasons, holidays, etc.
- Enhance development standards for new projects in the town, including requirements for sidewalks on both sides of major and minor thoroughfares, landscaping, signage, etc.

Identify the means by which Harrisburg’s quality of life can be furthered and a more unique marketing/economic development proposition created.

- Given the strong natural attributes of the study area, consider pursuing nature and outdoor activities as an economic development tool for both residential and non-residential land uses. This could include encouraging the extension of the Carolina Thread Trail through Harrisburg and extending parks and greenways through the town.

- Consider opportunities to extend parks and greenways to employment cores in the town to further amenitize business cores.
 - Extend these trail systems to a more significant sidewalk system in the town, one noted as being insufficient via resident feedback through the planning process for the Morehead Road study area.
- A secondary economic development theme could be Harrisburg’s family-focused environment. Included in this could be the creation of a central playground or water feature targeting children, such as Armstrong Park (shown below) built in Duncanville, TX. Retail around this park could also target parents and children visiting the park. Such a policy or strategy could help limit direct competition between a family-themed retail core and the existing Harrisburg Town Center retail.



- Allow greater diversification of Harrisburg’s housing offerings to accommodate maturing households already in Harrisburg and those seeking the town’s quality of life but unable or unwilling to purchase single-family homes on larger lots.

- Support smaller-lot single-family homes (cottage, patio home product), attached townhouse or ranch products, various senior housing products (active adult apartments, independent and/or assisted living), and for-sale condominium products.
- Encourage development of these higher-density products within walking distance of retail centers, including Harrisburg’s Town Center, proximate or adjacent to recreational opportunities, and proximate to key transportation access points.



Open Space, Parks, and Recreation

Preserve key areas and features as open space.

- Build on and utilize work done for the Partners for Green Growth Project. Mapping for this effort resulted in the identification of primary and secondary conservation areas. These areas should be utilized in determining open space in new development. The valuable natural resources that still remain intact in the study area present a great opportunity for creating a network of open spaces, trails, and greenways that increase access to nature.
- Raise awareness of and appreciation for natural resources. Make features an integral component of the development pattern.

Provide for a mix of open space types and programming.

- Encourage more formal open space and active recreational uses (i.e., pocket parks, plazas, formal greens, traditional playgrounds, sports fields) near developed areas (i.e., near planned residential areas and commercial/mixed use activity centers).
- Encourage more natural types of open space and passive types of recreation (such as greenways trails or nature play areas) near sensitive environmental features (i.e., stream corridors and floodplain forests).
- Encourage restoration activities in previously disturbed areas adjacent to Mallard Creek floodplain and tributaries. Previously disturbed areas offer opportunities for habitat restoration and for increased habitat diversity. Restoration activities could include stream restoration, tree canopy restoration, creation of meadows (via annual mowing) or pollinator plantings/gardens to complement nearby municipal efforts to restore Monarch Butterfly habitat in the area.
- Encourage the integration of Green Stormwater Infrastructure (GSI), such as landscaped stormwater retention and treatment areas that can serve as amenities while protecting water quality through infiltration.

Assist public and private as they work together or separately to establish recreation destinations within the Study Area.

- Support private investment in entertainment and spectator sport venues that enhance the CMS area.
- Work with Cabarrus County Parks and other partners to implement Town and County Master Plans.
- Partner with Cabarrus County Parks and/or area organizations to create greenway trails, particularly the Mallard Creek Greenway, and a trailhead in the vicinity of Morehead Road near Mallard Creek by requesting blanket easements when utilities are installed.

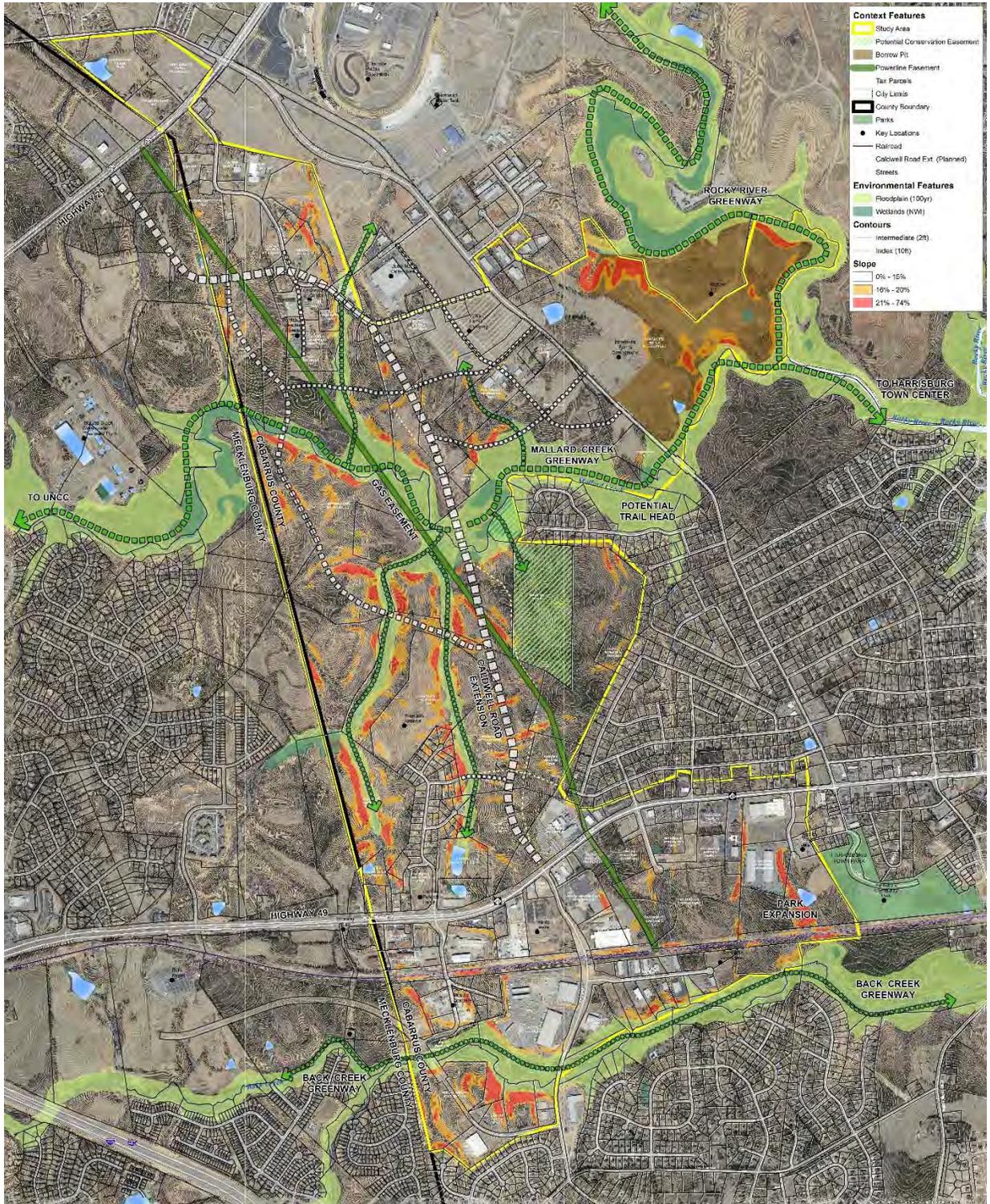


Figure 9. Proposed Parks and Recreation System Improvements

Greenways

Provide and facilitate greenway connections.

- Work with area partners for planning, funding, and implementation of Mallard Creek and Back Creek Greenways. Mallard Creek, Back Creek, and Rocky River provide good locations for potential greenway expansions through and to the Morehead West Area. Mallard Creek and Rocky River have both been identified as locations for sections of the Carolina Thread Trail, which would provide connections through the Charlotte metropolitan area and beyond. These greenway connections can provide an important recreational and transportation resource to Harrisburg as well as a public resource to focus and encourage high-quality development. Back Creek has been identified as a location for a greenway as well, and would provide another east-west option for non-motorized travel south of NC-49 and the rail line. Greenway connections to Harrisburg Town Center should also be explored to enhance functionality of these facilities
 - Coordinate with the City of Charlotte and Mecklenburg County for the connection to the Mallard Creek Greenway (also known as XCLT Trail and Carolina Thread Trail) at the Cabarrus-Mecklenburg County line.
 - Seek funding from Carolina Thread Trail to help implement the Mallard Creek Greenway, especially through the study area.
 - Request dedication of land from private property owners for the creation and extension of the Mallard Creek and Back Creek Greenways. This will be more easily accomplished through the private development process; however, raising awareness of the opportunities and potential benefits of the greenway connections should be part of an educational effort conducted in support of greenway land acquisition in all areas, including developed areas.
 - Encourage privately funded greenway segments that are constructed to meet the Town's standards (e.g., corridor width, trail width, trail pavement, lighting, landscaping, etc.). Privately funded segments of Mallard Creek and Back Creek Greenways should be dedicated to the public. Segments that connect to Mallard Creek and Back Creek Greenways may be dedicated or they may be privately owned and maintained by businesses or property owner associations.
 - Coordinate trail development with utility improvements and extensions. The colocation of greenways with utility easements and rights-of-way maximizes the public investment in infrastructure while minimizing environmental impacts.

Map existing and proposed destinations to ensure greenway linkages become “spine.”

- Identify the types of destinations that trail users are likely to expect to find and access along the greenway trail route. In mapping these destinations that are, or can be, accessible via the future trail, the following decisions can be informed: beginning and end points for segments to be slated for construction; side of the creek to locate trail and location and types of creek crossings; locations for parking; and design of access facilities. Examples of destinations include neighborhoods, restaurants, parks, historic sites, and nature preserves.



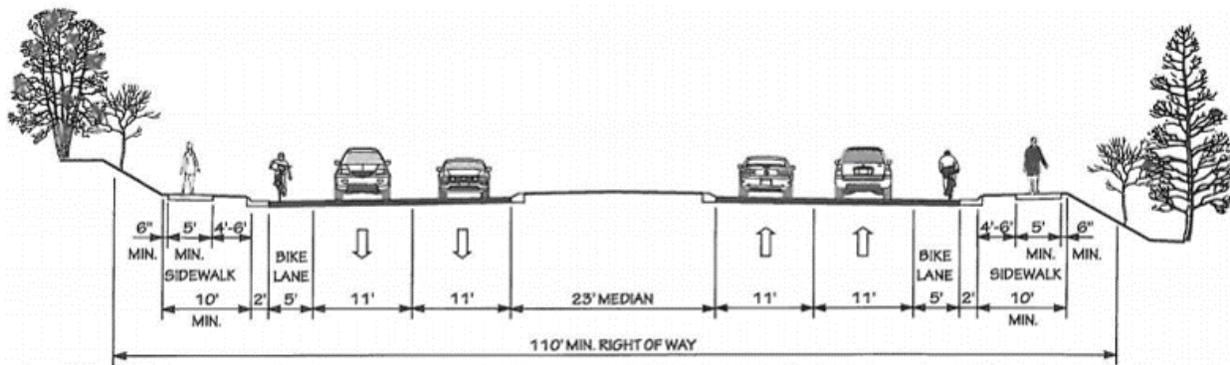
Buffalo Creek Preserve Trail in Mount Pleasant (top) and Pharr Family Preserve Trail in Midland (bottom) are two greenway trails in Cabarrus County that are part of the Carolina Thread Trail.

Mobility

Road Network

Extend Caldwell Road.

- Extend Caldwell Road from NC-49 to US-29. This extension provides a new north-south travel option, which serves regional and local mobility needs. Caldwell Road Extension can also help alleviate the transportation impacts of event traffic associated with the Charlotte Motor Speedway. The Caldwell Road Extension is planned to be a four-lane median-divided section with sidewalks and bike lanes on both sides. This cross-section (shown in Figure 10) is recommended in part based on projected needs of the previous development proposals and in part on the regional mobility needs that Caldwell Road Extension will further. Future traffic projections may show fewer lanes needed, especially in the northern section, but 110 feet of right-of-way should be reserved to accommodate future needs.



4 LANE DIVIDED (23' RAISED MEDIAN) WITH CURB & GUTTER, WIDE OUTSIDE LANES, BIKE LANES, AND SIDEWALKS

Figure 10. Proposed Caldwell Road Extension Cross-section

Two proposed alignment options for Caldwell Road Extension are shown in Figure 11 in dashed red lines. The proposed road connects to existing Caldwell Road at NC-49 and continues generally north, crossing Mallard Creek, and connects to US-29 in Mecklenburg County across from Floyd Smith Office Park Drive. The proposed roads are illustrative of a proposed system. Exact alignments will be subject to engineering studies, and will depend on the type, location, and intensity of development that each will serve.

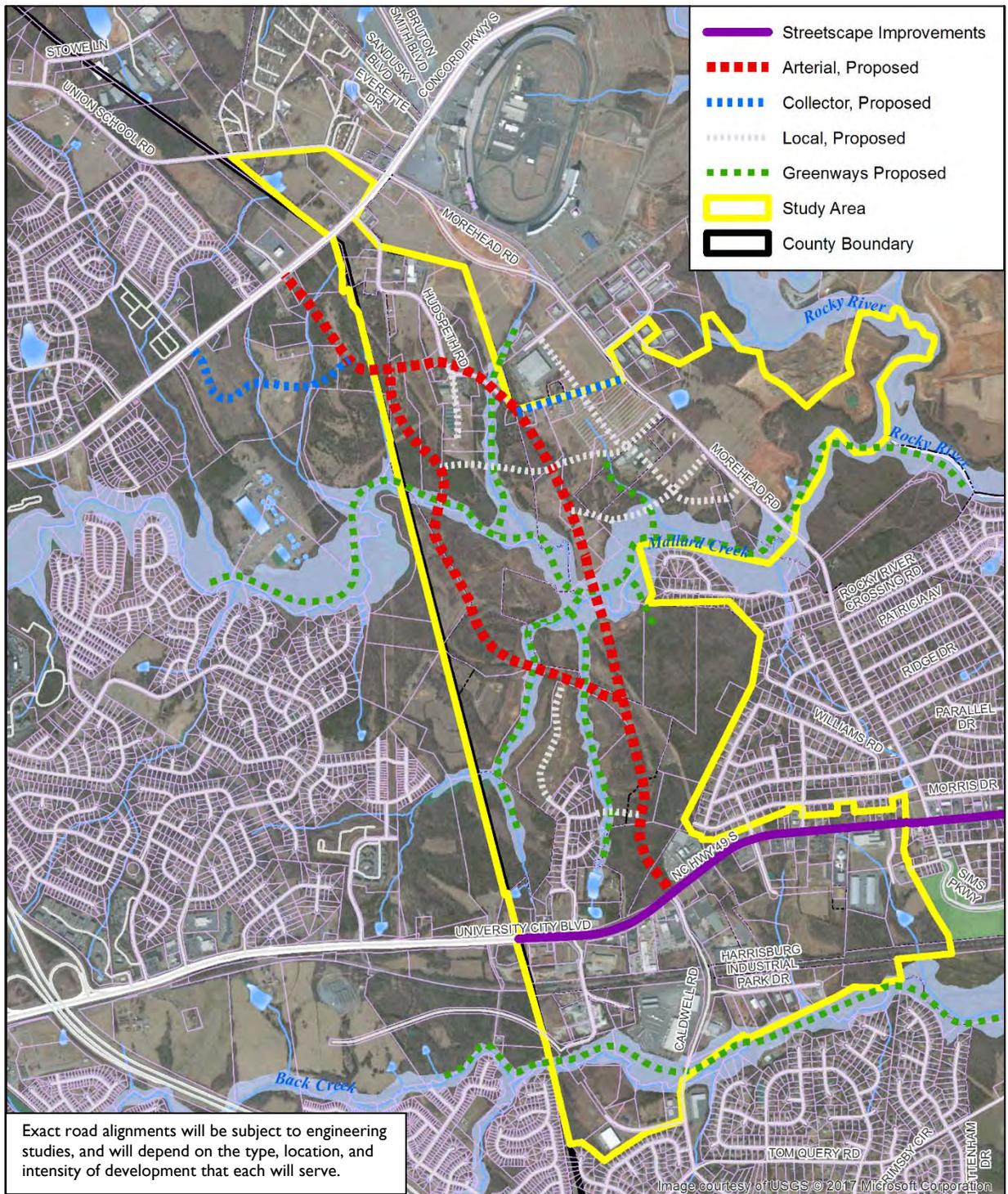


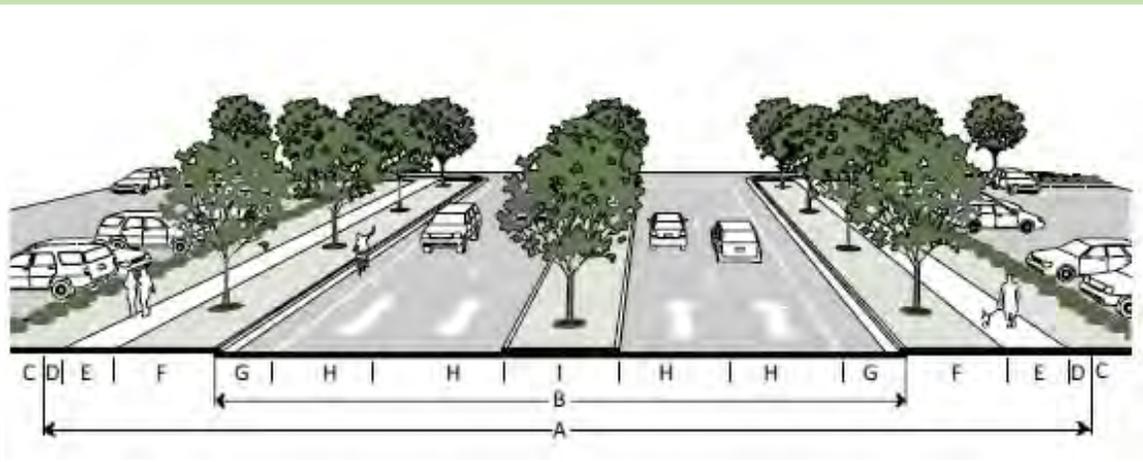
Figure 11. Proposed Road Network Improvements

- Consider Caldwell Road Extension for public funding, although some or most of the road may require private developer funding to build portions. (Note: Two alignment options are shown for Caldwell Road Extension in Figure 11, providing different alternatives to cross Mallard Creek. The ultimate goal is to develop one option as an arterial-level Caldwell Road Extension and the other as a collector-level road.)
 - Adopt the Morehead West Area Plan including the proposed Caldwell Road Extension alignment.
 - Continue to coordinate with Cabarrus-Rowan MPO (CRMPO), NCDOT Division 10, Charlotte DOT, and the Charlotte Regional Transportation Planning Organization (CRTPO), as these organizations should be aware of and supportive of the proposed alignment of Caldwell Road Extension.
 - Conduct a feasibility study to more precisely and reliably estimate probable costs associated with alignment options and to determine if one is a more suitable alternative. This feasibility study should determine structure needs for stream crossings, provide more exact alignments based on curve and grading needs, estimate earthwork quantities, develop intersection geometries, and provide detailed cost estimates.
 - Based on the results of the feasibility study, submit the proposed alignment for adoption by the CRMPO and CRTPO.
 - If there are proposed developments that affect area around the proposed alignment, work with the developers to reserve the right-of-way for Caldwell Road Extension or to construct sections of Caldwell Road Extension as part of the developments. If a developer or group of developers is willing to fund the design and construction of all or parts of the less feasible of the two options, as determined by the feasibility study, support the change in the location of the Caldwell Road Extension provided the points of connection to US-29 and NC-49 are maintained and the road is designed in accordance with the approved cross-section and for through movement.
 - Via the Cabarrus-Rowan MPO, submit the project for scoring in the State Transportation Improvements (STI) program.
 - If funding cannot be obtained through the STI or SPOT processes, Harrisburg should work with developers to construct segments of the road with development. With some sections built, the benefit/cost metrics may become more favorable in the STI scoring to allow the remainder or key sections (such as a bridge over Mallard Creek) to be constructed with public funding.

Support the creation of a network of new-location roads.

- Facilitate a network of collector and local roads, as shown in Figure 11 that can be privately built throughout the Morehead West Area to create a complete, hierarchical network of roads. Collector roads should be two- or three-lane cross sections with bike facilities and sidewalks. Complete street design standards should be used for these roads to ensure multimodal accessibility and accommodation.

A multimodal transportation network is a critical component of supporting development plans in the Morehead West Area and ensuring and enhancing mobility options for all Harrisburg residents and visitors. A new network of roads will allow development goals to be achieved, provide access to internal parcels, meet regional mobility goals, and help alleviate event traffic. The Morehead West Area has potential to add pedestrian, bicycle, transit, and rail infrastructure to assist with local and regional mobility.



Improve NC-49.

- Work to improve aesthetics and operations on NC-49 through street plantings, medians in key locations, driveway consolidation and closing, decorative or pedestrian-level street lighting, and potentially buried utilities. NC-49 through the study area is a five-lane section, with sidewalks in some sections, although a narrow section of right-of-way. NC-49 is an important regional arterial. It is designated a NCDOT Strategic Highway Corridor but has been downgraded from an Expressway to a Boulevard designation. NC-49 will continue to be an important regional road and I-85 alternative, and as such, it will continue to carry significant volumes of traffic. However, aesthetic and operational improvements can maintain or increase road capacity, reduce conflict points, and enhance the pedestrian experience. As the corridor has continued to develop, the array of businesses and uses are such that pedestrian connections are important and aesthetic improvements can enhance the pedestrian experience.
 - Conduct a corridor study to address future improvements to NC-49. In collaboration with NCDOT and as part of a detailed study of the corridor, address access management and streetscape.
 - Work with NCDOT to:
 - Improve crossings. Pedestrian crossing enhancements should also be a part of improvements to the roadway, including more visible crosswalks, pedestrian countdown timers, and clearly delineated crossing locations.
 - Accommodate bikes, which may best be provided through off-road facilities with access to parcels fronting NC-49.
 - Implement median treatments (as needed). Median treatments may be placed in locations to aid traffic flows and reduce conflict points. These treatments allow for more plantings on the roadway.
 - Consolidate driveways along the road frontage.



Transit and Rail

Support transit connections.

- Promote “transit-ready” designs for new development to incorporate easements for transit stops. Such stop areas should have the highest concentration of nearby development and be designed for walkability and pedestrian accessibility. As new development occurs, it should not preclude the incorporation of transit stops, if such stops are warranted in the future.
 - Incorporate transit-friendly designs and policies into new development to support transit service when it is feasible from a financial and ridership perspective.
- Work with CK Rider, Cabarrus County Transportation Services, Cabarrus-Rowan MPO, the City of Charlotte, and Mecklenburg County to pursue options for transit service to Harrisburg. When the Blue Line Extension to UNC-Charlotte is complete, Harrisburg should pursue opportunities for feeder service. Transit service may not be on the immediate horizon but continued growth in Harrisburg and the region will increasingly make it feasible, primarily in three forms: 1) feeder service to the Blue Line Extension, 2) Express service to downtown Charlotte, and 3) local connections to Concord and Kannapolis. Harrisburg should continue to explore these options and work to implement services when ridership estimates can show sufficient demand for services to support these routes.
 - Hold discussions with neighboring agencies on express, feeder, and local transit service options.



Advocate for Amtrak station closer to Harrisburg Town Center.

- Work with Amtrak and NCDOT Rail Division on the possibility of a rail station in Harrisburg and the potential location of that station. The October 2015 *Harrisburg Rail Station Site Assessment Study Update* provided several options for a station location. Rail operations, track geometry, environmental considerations, and accessibility issues will also play an important role in determining the final location.
 - Continue to explore a possible Amtrak stop close to Harrisburg Town Center, as the ideal station location would be as close to and accessible from Harrisburg Town Center as possible.

Navigation and Orientation

Improve navigation through the Study Area.

- Implement the Town's proposed wayfinding program.
 - Install signs throughout the Morehead West Area. A unified wayfinding program can orient visitors and help them access locations they are seeking. Signs can also promote cultural, civic, economic, and entertainment options throughout the town. Signage improvements will also assist with the management of event traffic and parking associated with the Charlotte Motor Speedway. Signs will enhance parking operations and ingress/egress to areas of town and parking lots. Figure 12 shows proposed wayfinding sign designs.



Figure 12. Proposed Wayfinding Sign Design

Utilities

Facilitate desired development with the utility infrastructure necessary to support it.

- Initiate the provision of adequate sewer service by extending sewer along Mallard Creek, as shown in Figure 13.
 - Phase 1 System Upgrades
 - Serve new development and redevelopment at Caldwell Road and NC-49. The following utility system upgrades may be needed to accomplish this.
 - Allow new development near NC-49 to connect to the Bentley Hills Pump Station. Upgrades to the Bentley Hills Pump Station may be needed. New development should pay a proportionate cost of upgrades.
 - Replace Millbrook Pump Station with a gravity sewer line to Back Creek. Upgrades to the Orchard Park Pump Station may be needed. A flow monitor on the Back Creek line east of Orchard Park may be needed to determine if capacity exists to accommodate the steps above.
 - Construct a gravity sewer trunk line along Mallard Creek to Leatherwood Pump Station. This will resolve issues with the existing pump station. This would be a Town-initiated project in terms of design and funding. The Town should move forward with the study, design, and cost estimate so the project is ready when “triggered.” Note, this may require coordination with development that is being proposed east of Morehead Road outside of the study area. Coordination on the location of sewer to serve new development as well as Town funding to pay for upsizing may be required.
 - Phase 2 System Upgrades
 - Construct gravity sewer west along Mallard Creek and to the south. These gravity lines would eventually enable the removal of two pump stations (Hudspeth Road #2 and Bentley Hills). These extensions present cost share opportunities with future development.
 - Phase 3 System Upgrades
 - Provide a parallel gravity line along Mallard Creek if needed. If land uses with higher water/sewer flows locate near Morehead Road a parallel gravity line may be needed. The need for this would be determined at a later date.

- Address water issues: connections, storage capacity, and pressure.
 - Utilize Caldwell Road Extension and other new location roadways to create water loops. This would increase system resiliency and improve water quality.
 - Coordinate with utility partners:
 - Coordinate with Concord to ensure adequate capacity existing in elevated storage tanks. Currently the northern portion of the study area is served by a water tank in the vicinity of the CMS. An additional tank may be needed in the Concord system to meet the requirement for having at least half of daily water demand in elevated storage.
 - Coordinate with Mecklenburg County/Charlotte Water on serving areas in Mecklenburg County that are northwest and southwest of the study area (i.e. Caldwell Park) and determining needs for master meters and interconnects along US 29, Mallard and Back Creek.



Figure 13. Proposed Utility System Upgrade Phases

- Fund utility system improvements.
 - Town/public initiatives:
 - Study and implement/revise capital recovery fee procedures
 - Partner with Concord to qualify for WSACC participation in the funding of the sewer trunk line along Mallard Creek. WSACC participation is warranted by the involvement of two or more jurisdictions and the removal of the pump station serving Concord (refer to Phase 1 above).
 - Private partnership opportunities:
 - Facilitate extensions of water and sewer service through the private development process. A phased approach to extending water and sewer lines will help create opportunities to partner with private developers.
 - Encourage the use of tax increment grants (TIGs), one of several financing tools the Town has made available through its Tax Increment Grant Program.

Coordinate utility improvements and extensions with greenway trail development.

- Partner with public and private entities to reserve land for and construct a segment of the regional greenway along Mallard Creek and spur trails along sewer outfalls to the north and south.
(Note: See other greenway and open space recommendations in previous sections.)



Charlotte Premium Outlets

CASE STUDY: Tax Increment Grant

Development of a large retail center in Charlotte included developer-funded upgrades to area roads and other infrastructure that was needed to serve the center as well as existing and future development. Through an annual tax refund over a period of years, the developer is being reimbursed for the costs of a portion of the improvements that the City alone could not have funded in a timely manner.

Beyond the Study Area

Update the Harrisburg Area Land Use Plan.

- Amend the Harrisburg Area Land Use Plan to incorporate the recommendations of this Morehead West Area Plan.

Modify the Harrisburg Unified Development Ordinance

- Amend zoning for Town Center to allow for more residential uses to create a stronger market for nonresidential uses there and to attract empty nesters and millennials.
- Eliminate the City Center (CC) district.

APPENDICES

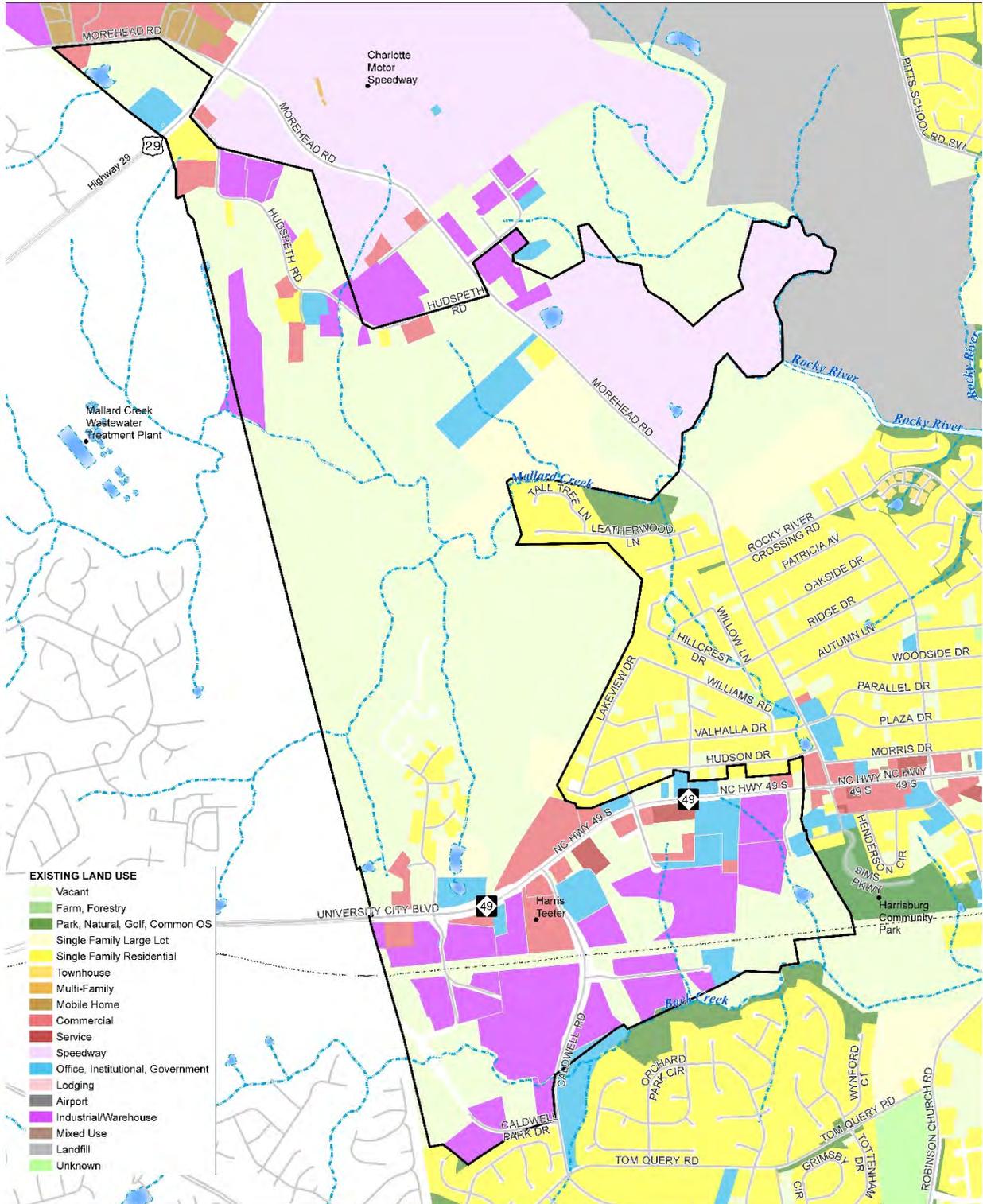
Appendix A: Existing Conditions and Suitability Maps

Appendix B: Community Input Summary

Appendix C: Retail Demand Analysis

Appendix A: Existing Conditions and Suitability Maps

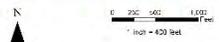
The maps contained in this Appendix A are existing conditions maps reflecting the conditions of the Morehead West Area when the planning process was initiated in April 2016. The data depicted on the maps served as inputs into the analyses, such as the suitability mapping that is also included in this Appendix A. The information gleaned from the synthesis of such conditions informed some of the ideas and recommended policies documented in the Plan. All maps were prepared by LandDesign with assistance from the Town and VHB.



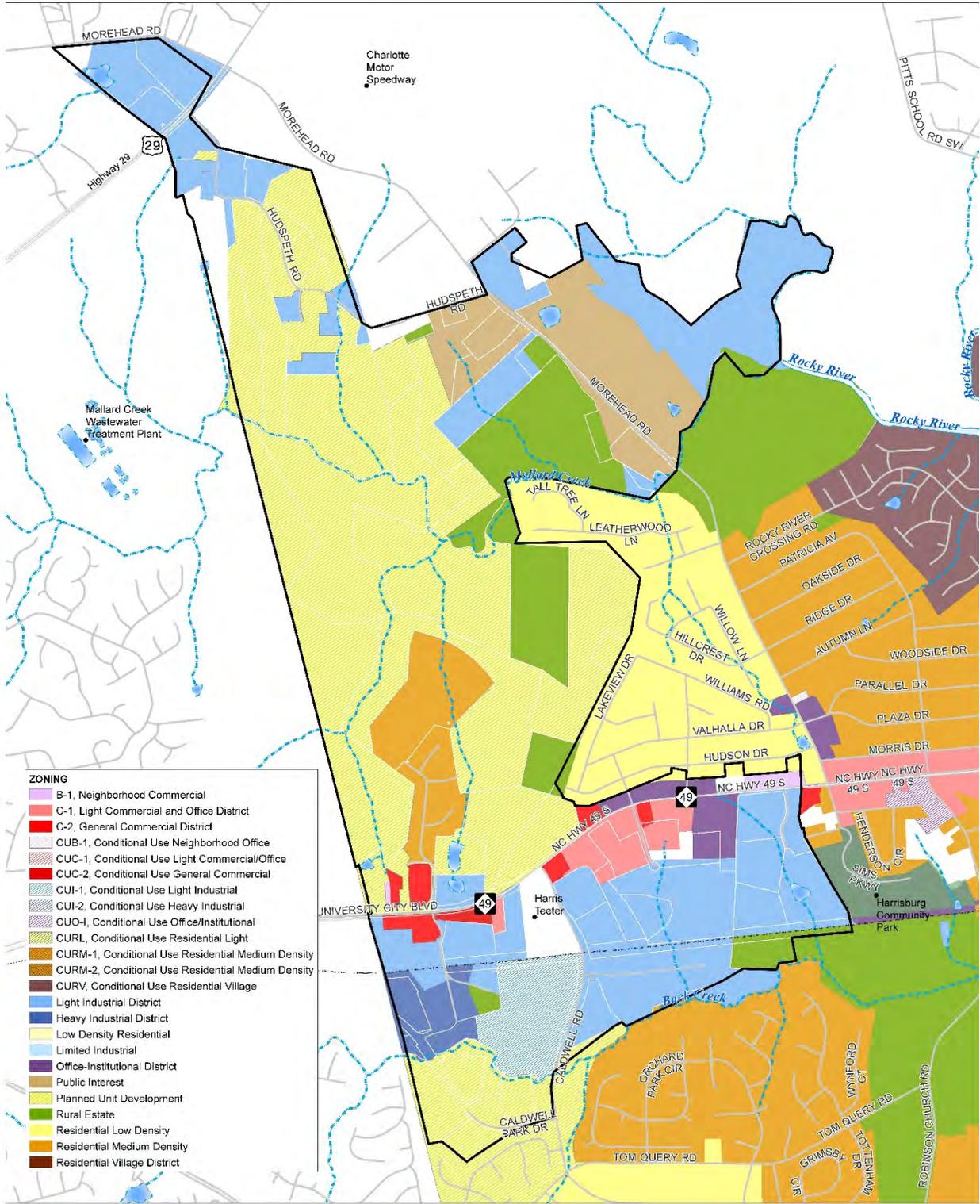
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EXISTING LAND USE
CABARRUS COUNTY, NORTH CAROLINA



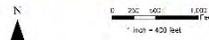
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ZONING MAP
CABARRUS COUNTY, NORTH CAROLINA



This map is a representation of the zoning map of Cabarrus County, North Carolina, as of the date of publication. It is not intended to be used as a legal document. The map is subject to change without notice. The map is not intended to be used as a legal document. The map is subject to change without notice.



Context Features

- Study Area

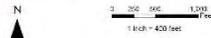
Natural Resources

- Surface Water
- Streams
- Stream Buffers
- Parks
- Steep Slopes (> 15%)
- Floodplain (100yr)
- Forest Cover (2015)
- High Quality Habitat (DENR BWA)
- Heron Colony

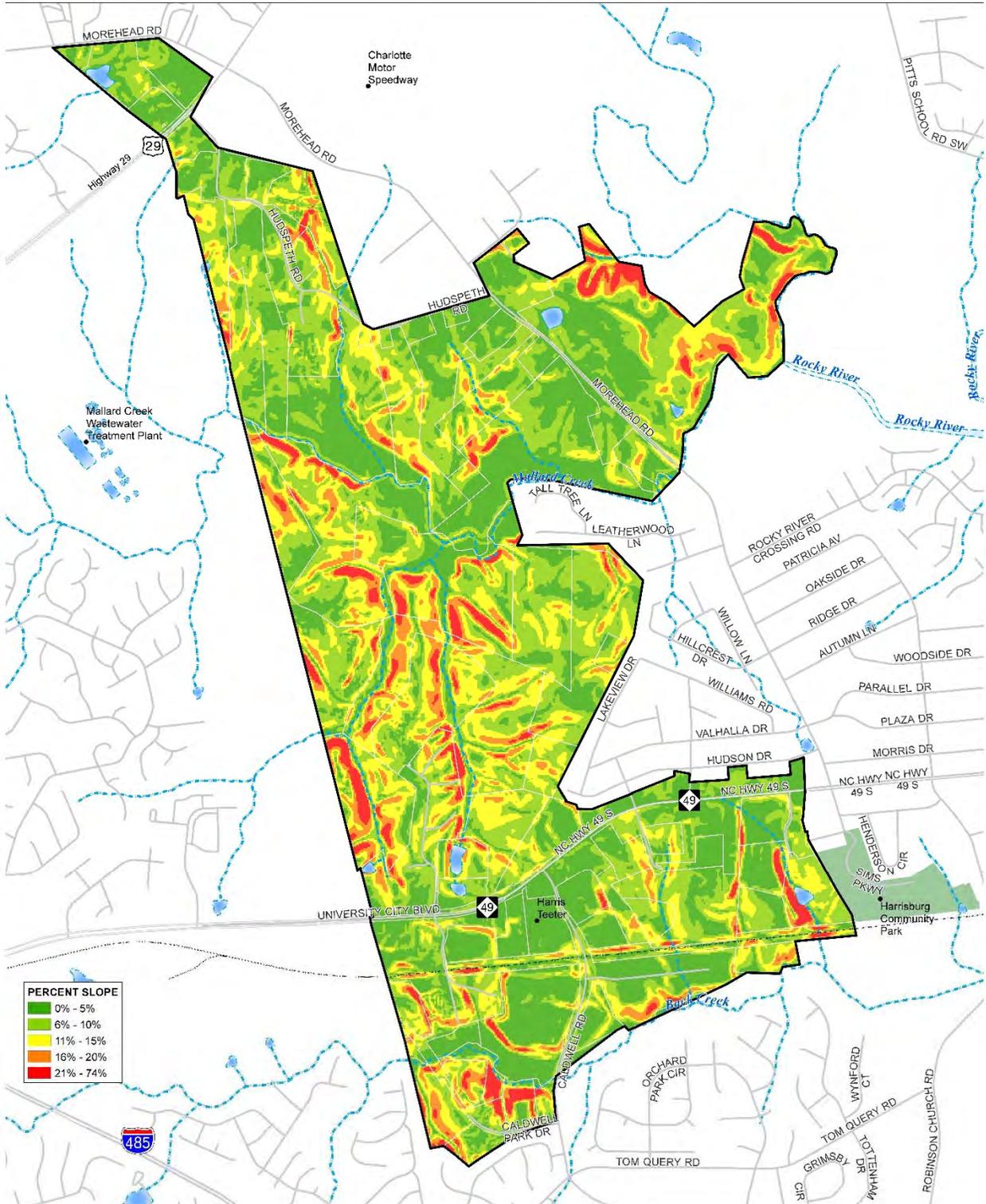
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Data Source: Cabarrus County, NCGEMAP, Esri

NATURAL RESOURCES & FEATURES
HARRISBURG, NORTH CAROLINA



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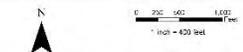


PERCENT SLOPE	
0% - 5%	Green
6% - 10%	Light Green
11% - 15%	Yellow
16% - 20%	Orange
21% - 74%	Red

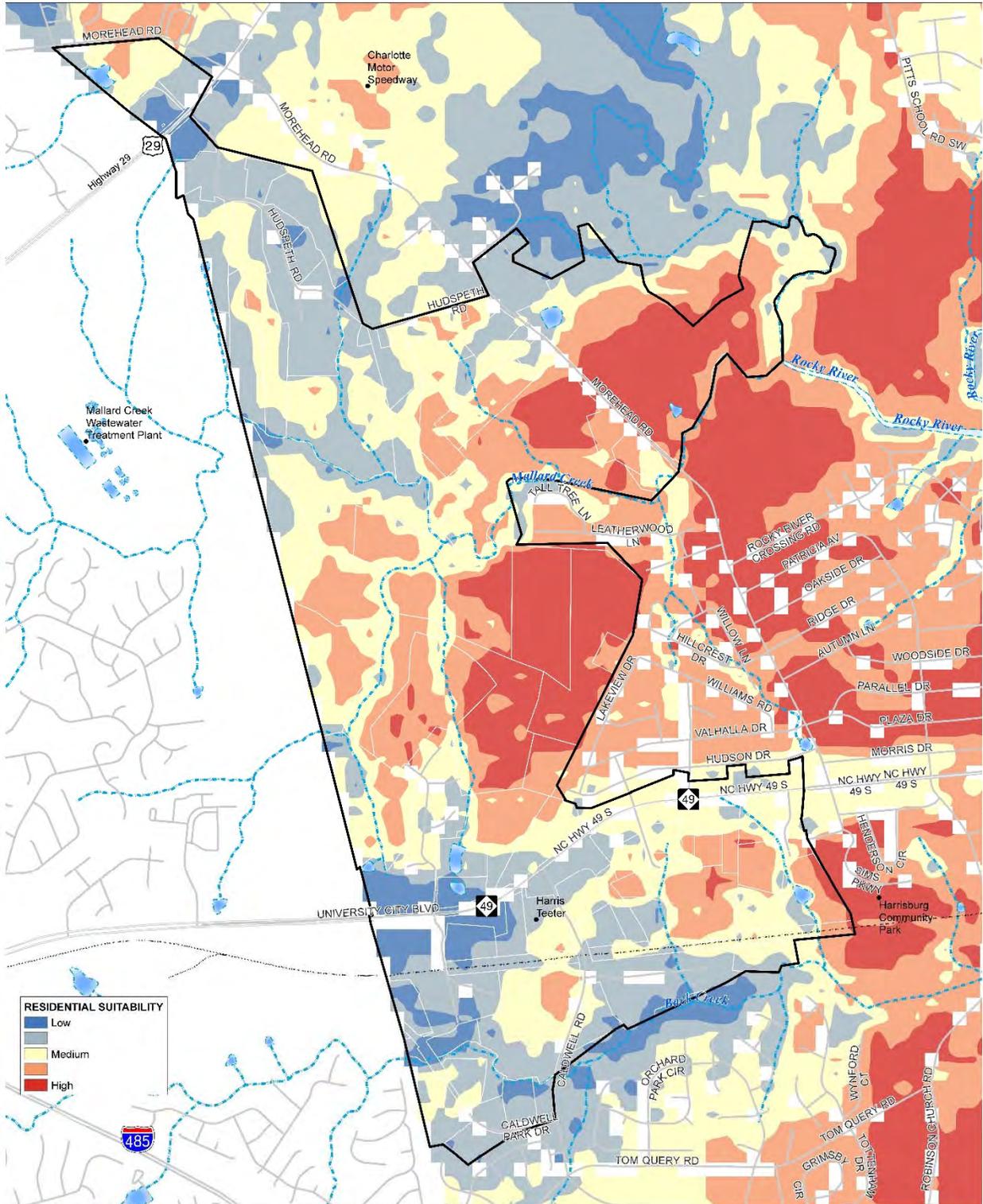
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Data Source: Cabarrus County, NCDENRMAP, Esri

EXISTING SLOPE
CABARRUS COUNTY, NORTH CAROLINA



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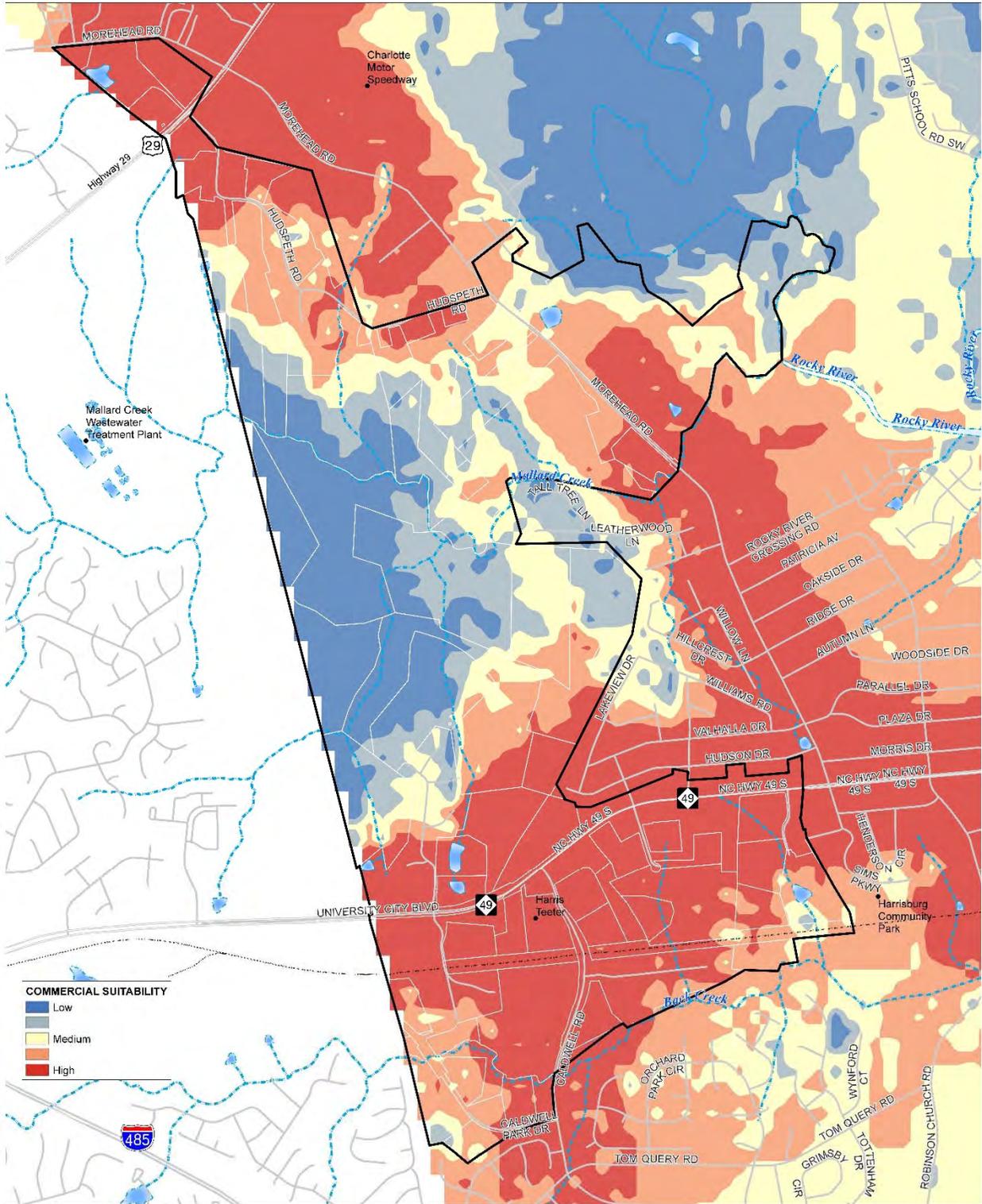
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Data Source: Cabarrus County, NCEM/EMAP, Esri

RESIDENTIAL SUITABILITY
CABARRUS COUNTY, NORTH CAROLINA

0 200 400 600 Feet
1 inch = 400 feet

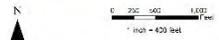
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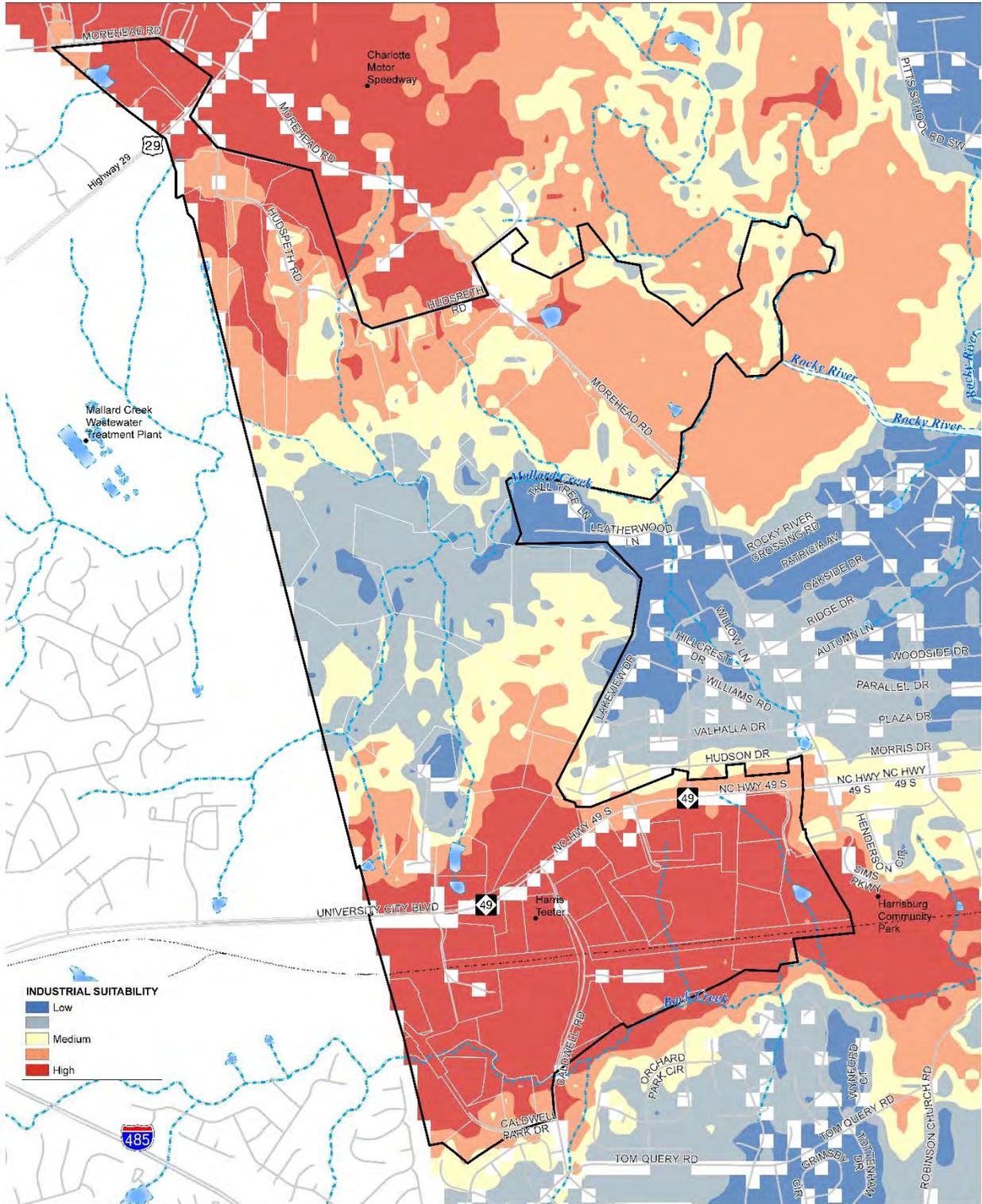
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COMMERCIAL SUITABILITY
CABARRUS COUNTY, NORTH CAROLINA



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INDUSTRIAL SUITABILITY
CABARRUS COUNTY, NORTH CAROLINA



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Appendix B: Community Input Summary

The involvement of the community in the creation of the Morehead West Area Plan was crucial. Through the thoughtful input of citizens, business owners, property owners, and other stakeholders, a vision for the future of the area emerged. The Plan communicates their expectations, providing the guidance needed to inform Town and County leaders' decisions pertaining to land use, conservation, and investments in infrastructure and services to support desired development.

The following summarizes the mechanisms employed to obtain input as well as some of the results of each.

Stakeholders Interviews

Early in the planning process, the project team held interviews with small groups of people who, because of their knowledge of the existing conditions or direct experience working with relevant information, could speak to the very specific issues and opportunities of the area. In combination with a review of data and tours of the study area, the project team utilized input to verify and further synthesize data. A total of 46 people attended the interviews, which were held over a period of two days. The interview topics included neighborhoods; transportation; open space, environment, and parks and recreation; utilities; real estate, development, and land ownership; business and economic development. Consistent themes across all interviews included the following:

- **Quality** – The quality of future development is as important as the type of development.
- **Jobs** – More jobs are needed in Harrisburg to increase in-town employment opportunities for residents; shift commuting patterns and reduce traffic issues with a reduction in commuting; and provide more daytime population to support the retail and restaurant uses desired.
- **Housing** – More housing suitable for people over 55 should be available in the future.
- **Environment** – Conservation of valuable natural features is important.
- **Traffic** – Traffic issues need to be addressed, particularly on NC-49 and Morehead Road, with improvements that include the extension of Caldwell Road to US-29.
- **Recreation** – Trails and passive recreation should be part of the recreation options in the area.
- **Entertainment** – Dining and family-oriented entertainment should be components of the land use mix.

A complete list of interviewees organized by topic is available through the Town's Planning and Zoning Department upon request.

Community Meetings

Two public meetings were held during the planning process. The first meeting, held on June 22, 2016, summarized the major issues and opportunities, and included initial land use plan ideas. Attendees provided feedback and shared ideas that were used to formulate a more details future land use vision. On September 6, 2016, the second meeting was held to present the draft future land use plan as well as preliminary policy recommendations. Input received help refine the Future Land Use Plan map and guided the formulation of implementation strategies to support the policy recommendations.

Community Survey

A qualitative survey was made available on the Town's website to gather input to supplement the ideas and concerns raised at the first community meeting. A total of 176 people responded to the survey. The open-ended responses indicated a preference for little or no development, which seemed to be stemming from concerns about school overcrowding, traffic, and loss of green space. The responses also revealed that, if the area is to develop, there is a strong preference for restaurants, shopping, and recreation throughout the area. There is support for more business, industrial, and office uses along and south of NC-49. Also, more than 50% of respondents strongly agreed that greenway trail development should be a priority for recreation and transportation.

A copy of the survey questions and responses are available through the Town's Planning and Zoning Department upon request.

“currently underutilized” “more restaurants and shops” “we should be focused on professional services” “high density residential if high end” “need more business” “similar to Afton Village” “family-oriented activities” “too rural” “business development is needed” “need greenways” “think restaurants, shops, entertainment” “undeveloped...provides no use” “balanced approach” “taxes generated could be used to better the community” “some housing” “upscale” “could use a lot of development to make it more appealing”

Appendix C: Retail Demand Analysis

(Prepared by Noell Consulting, February 2017)

HARRISBURG RETAIL DEMAND ANALYSIS

Estimated Retail Demand Potential in the Harrisburg Area- 2017

Store Type (excl. Autos & Gas)	Local Expenditure Potential ¹	Per Capita	Est. Sales/ SF	Demand Potential (inc outside demand)	Area Employee Expend
<i>2017 Population, Trade Area</i>	19,645				3,837
Furniture and Home Furnishings	\$7,010,907	\$357	\$215	32,637	
Furniture Stores	\$3,742,258	\$190	\$264	17,010	
Home Furnishing Stores	\$3,268,649	\$166	\$251	15,627	
Electronics & Appliance Stores	\$5,819,480	\$296	\$358	19,534	
Bldg Mats., Garden Equip	\$8,758,275	\$446	\$311	28,159	
Bldg Materials & Supply Stores	\$5,819,480	\$296	\$321	18,129	
Lawn & Garden Equipment	\$2,938,795	\$150	\$293	10,030	
Food & Beverage Stores	\$42,099,800	\$2,143	\$438	96,062	
Grocery Stores	\$38,189,789	\$1,944	\$455	83,934	11%
Specialty Food Stores	\$1,398,172	\$71	\$241	5,802	5%
Beer, Wine & Liquor Stores	\$2,511,839	\$136	\$397	6,327	
Health & Personal Care	\$20,863,648	\$1,062	\$492	42,435	13%
Clothing & Clothing Accessories	\$15,926,369	\$811	\$319	49,939	
Clothing Stores	\$11,862,363	\$604	\$368	38,682	
Shoe Stores	\$2,168,569	\$110	\$350	7,435	
Jewelry, Luggage & Leather	\$1,895,437	\$96	\$595	3,823	
Sports, Hobby, Book & Music	\$6,668,282	\$339	\$285	23,423	
Sports, Hobby, Musical Inst	\$5,724,996	\$291	\$365	18,822	
Book & Music Stores	\$943,286	\$48	\$246	4,601	
General Merchandise Stores	\$38,384,251	\$1,954	\$201	191,024	
Department Stores (inc. Discount)	\$20,676,243	\$1,052	\$205	121,032	
Other Gen. Merch. Stores	\$17,708,008	\$901	\$253	69,992	
Miscellaneous Store Retailers	\$9,275,204	\$472	\$217	42,673	
Florists	\$460,294	\$23	\$226	2,037	5%
Office Supplies, Station. & Gifts	\$3,075,716	\$157	\$253	12,157	5%
Used Merchandise Stores	\$1,222,881	\$62	\$253	4,834	
Other Misc. Store Retailers	\$4,516,313	\$230	\$191	23,646	
Food Service & Drinking Places	\$32,575,644	\$1,658	\$358	91,026	
Full-Service Restaurants	\$18,551,490	\$944	\$444	50,139	13%
Limited-Service Eating Places	\$12,799,852	\$652	\$333	38,438	28%
Drinking Places	\$1,224,302	\$62	\$500	2,449	
TOTAL	\$187,381,860	\$9,538	\$304	618,912	

While there is unmet demand among a number of real estate categories in Harrisburg (totaling up to 454,000 SF) of unmet demand, it is worth noting that the overwhelming majority of this demand is being met in one of two locations: in University City as well as around Concord Mills and southern Concord. We estimate there is more than 1.77MM square feet of retail space in ZIP 28262 (University City), which does not even fully cover that submarket.

SF Supported by Area Emps.	Demand from All Sources +10%	No. of Retail Emps	SF per Emp.	Est. Supply	Net Demand	Store Types w/ Pos Dmd	28262 Retail Supply
0	35,901	0		0	35,901	35,901	225,500
	18,711	0	500	0	18,711	18,711	212,500
	17,190	0	500	0	17,190	17,190	13,000
0	21,487	0	500	0	21,487	21,487	10,750
0	30,975	15		14,500	16,475	16,475	6,500
	19,942	15	1,000	14,500	5,442	5,442	6,500
	11,033	0	500	0	11,033	11,033	0
1,860	107,714	235		117,250	-9,536	10,154	119,000
1,803	94,311	228	500	114,000	-19,689		97,500
57	6,444	7	500	3,250	3,194	3,194	11,750
	6,960	0	500	0	6,960	6,960	9,750
1,077	47,863	54	500	26,750	21,113	21,113	122,250
0	54,933	4		2,000	52,933	52,933	160,000
	42,550	4	500	2,000	40,550	40,550	120,250
	8,179	0	500	0	8,179	8,179	39,750
	4,205	0	500	0	4,205	4,205	0
0	25,766	2		1,000	24,766	24,766	76,250
	20,704	2	500	1,000	19,704	19,704	59,250
	5,062	0	500	0	5,062	5,062	17,000
0	210,126	13		13,000	197,126	197,126	610,000
	133,135	0	800	0	133,135	133,135	120,000
	76,991	13	1,000	13,000	63,991	63,991	490,000
139	47,093	22		10,750	36,343	37,330	85,000
20	2,262	7	500	3,250	-988		3,250
119	13,503	13	500	6,500	7,003	7,003	25,500
	5,317	2	500	1,000	4,317	4,317	37,250
	26,010	0	500	0	26,010	26,010	19,000
3,163	103,608	495		66,800	36,808	36,808	313,150
1,061	56,320	158	150	23,700	32,620	32,620	204,000
2,102	44,594	324	125	40,500	4,094	4,094	96,750
	2,693	13	200	2,600	93	93	12,400
6,239	685,466	838		252,050	433,416	454,094	1,728,400

Nearly one-third of this demand is for department and discount department stores, a store type that prefers higher traffic, highly accessible locations such as those along area freeways and/or destination locations, such as University Place, Belgate, and Concord Mills.



**THE PLAN WAS PREPARED WITH
ASSISTANCE FROM:**



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