



A Collaborative Plan for Economic Vitality And Quality of Life

A cooperative effort involving the following jurisdictions: Forsyth County, City of Greensboro, Guilford County, City of High Point, Town of Kernersville, Town of Oak Ridge and City of Winston-Salem.

Heart of the Triad

June 30, 2010





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PLAN Contents

INTRODUCTION 1

THE VISION..... 2

ASSURANCES..... 2

USE OF THE PLAN 3

GOALS AND OBJECTIVES..... 3

LAND USE 5

AGRICULTURAL AND OPEN SPACE 8

ECONOMIC DEVELOPMENT..... 10

DEVELOPMENT STANDARDS..... 12

TRANSPORTATION 17

CONCLUSION 20

SUPPORTING MAPS and DOCUMENTATION

- Slope Analysis
- Agricultural, Forestry And Open Space
- Development Constraints Map
- Existing Public Facilities
- Land Use Plan
- Consolidated Thoroughfare Plan
- Regional Multimodal Transportation Network
- Population and Employment Projections within the Heart of the Triad Study Area



INTRODUCTION

The Heart of the Triad planning process is for the purpose of enhancing this strategically important part of the region while maintaining its natural beauty and unique features. This is an effort by local governments and regional organizations to work with citizens, businesses, and developers in creating a dynamic environment which stimulates our regional economy and provides an excellent quality of life for all. The plan seeks to have this area complement and support the existing city and town centers in the Triad rather than to compete with them.

Located strategically in the center of our region between the major urban centers and adjacent to our area's key highway, rail and air transportation facilities, the Heart of the Triad area (see map) is positioned to help expand job opportunities, and provide new living, shopping, educational and cultural opportunities convenient to those employment centers. At the same time, the area has many acres of beautiful natural environment and active farming that can and should be preserved as a key quality of life element.

History of Heart Of The Triad Planning

On April 27, 2004 a meeting was held in Kernersville with the mayors and managers of Winston-Salem, Kernersville, High Point, and Greensboro and the Board of Commissioners chairs and managers of Guilford and Forsyth County to discuss the potential opportunities that could be addressed by a cooperative planning effort for the area straddling the Guilford and Forsyth County lines and near Piedmont Triad International Airport. At that meeting, the planning directors for

the jurisdictions were asked to meet together with support from the Piedmont Authority for Regional Transportation (PART) to determine how such a plan could be prepared and to report back.

The planning directors met and developed a conceptual outline of an area to study, and what types of issues and trends are evident in the area, existing plans that cover the area, and what a development concept might look like. Their discussions concluded that more detailed study and planning would be beneficial and with agreement of the various governing bodies, a process for detailed study would be funded and carried out. The planning directors reported that the scope of this additional planning demanded more resources than they were able to provide. In order to fund this effort, PART accessed some NCDOT funding that was available, and the remainder was raised through a fundraising effort by the regional chambers of commerce. An advisory committee of elected and planning officials was named, and the planning directors and PART selected a consultant to do the detailed work.

During 2005-06, the majority of the work on the planning study was conducted, which included analysis of existing land use, transportation and public infrastructure conditions, future plans for the area, and study of the economic potential for the Triad region that could be particularly well-served by this smaller area. A public forum was conducted at Woodland Hall in early 2006, followed by a weeklong planning "Charrette" in Colfax during April 2006, which included several public outreach sessions. Following this input, several alternate growth concepts were developed and analyzed for cost/benefit and regional impact, given the population and employment increases

expected in the region as a whole. The study concluded in January 2007 with a presentation given to elected officials from the different jurisdictions. The recommendations involved creation of three centers-- a Technology/Transportation Logistics Cluster; and Retirement/Lifestyle Community; and an International Intellectual Asset Center. Traffic demand modeling and transportation recommendations were also included, and the preferred concept included a large amount of open space.

The consultant recommendations were met with a strong degree of skepticism and even opposition from a number of property owners and citizens in the area who did not believe that citizens and property owners were not given enough opportunity to participate in the entirety of the process, that some of the transportation recommendations would destroy the character of the area, that too many jobs and new residential uses were being proposed for the area, and that eminent domain would be broadly used to achieve the objectives of the concept plan. As a resolution endorsing the next steps in refining the plan was being drafted for circulation to the elected bodies of the jurisdictions, the resolution was tempered by a desire to restructure the formal input process to be more inclusive of the broad interests involved. Also, the lack of significant new funding to conduct more detailed planning that would identify needed changes in local jurisdiction plans, resulted in the planning directors once again taking on the task of refining the process and working directly with a new Stakeholders Advisory (citizens, property owners, business/development interests) Committee and Strategic Planning (elected officials) Committee.



How the Plan Has Been Prepared

Since mid 2008, the planning directors and PART staff have worked closely with the Stakeholders Committee and Strategic Planning Committee to:

- Orient both committees to the area being studied, existing conditions, existing land use plans, existing and planned infrastructure, and potential futures under different planning scenarios;
- Develop an overarching statement of direction for the plan consisting of a vision, assurances, and goals and objectives;
- Provide a description and visualization of proposed land uses for the area as well as land use strategy statements that would guide the preparation of a future land use plan;
- Prepare a Land Use Plan map that arranges the various uses within the area of study;
- Review existing long-range transportation plans and programmed state transportation improvements;
- Outline agricultural and open space preservation measures offered by local governments in the area that could be highlighted as part of the plan;
- Identify a set of common quality development standards that would promote a more attractive and functional environment as well as a sense of place for residents, workers and visitors; and
- List the collaborative opportunities for economic development that present themselves in the implementation of the plan.

Many hours have been spent by the people represented on these committees to read, review, discuss, debate, compromise, and develop consensus on the plan. The planning directors considered elements of the conceptual plan prepared by the consultant and determined a number of things that merited a different approach, including different locations for some of the concentrated activity and business centers as well as a smaller number of jobs and housing that would be accommodated within the study area.

After this more collaboratively developed plan was refined and discussed, the Stakeholders Advisory Committee and planning directors conducted a public open house on the plan recommendations in April 22, 2010 at Piedmont Triad Farmers Market to gather public comments and suggestions about the plan before final revisions were made for presentation to the Strategic Planning Committee.

THE VISION

Working together to enhance the Heart of the Triad while maintaining its natural beauty and unique features.

ASSURANCES

Protection of Property Rights: Maintenance of private property rights and proper legal use of eminent domain and all types of annexation are essential to the development of the Heart of the Triad.

Stewardship of our natural resources and preservation of open space: Plans for this area should serve to protect these resources including

water quality, air quality, habitats, wetlands, floodplains, watersheds, agricultural land and open space.

Infrastructure: Infrastructure should complement local land use plans. Transportation planning should consider multi-modal objectives to provide suitable alternatives to the automobile.

Public Input/Public Information and Development Transparency:

Property owners will be informed about growth in the area through meaningful opportunities for input and participation. All activities should be transparent and encourage public participation.

Opportunities for conservation (Voluntary Agricultural Districts, conservation easements, present use value) should be emphasized and promoted.

Sustainability: Sustainability can be defined as “policies and practices that meet today’s needs without jeopardizing the needs of future generations.” In all areas of development, preservation and conservation should be emphasized in the Heart of the Triad.

Governance: Governance, cooperation, and coordination of the Heart of Triad will be among existing jurisdictions in lieu of creating a regional government. Participating governments will be encouraged to develop consistent codes, standards, practices and policies related to land use and development in the Heart of the Triad.



USE OF THE PLAN

In order to achieve the vision and objectives of this plan, it is vitally important that the various local jurisdictions work together to implement their portions of it in a collaborative manner with each other. As described in more detail in the concluding chapter, this planning document will be used to help guide the individual actions of the local jurisdictions as they consider amending their existing plans to incorporate the recommendations. In addition, the plan should be used by the regional agencies for transportation and economic development as well as their local partners so that those elements of the plan are implemented in a coordinated and effective manner. Finally, the plan is intended for use by individual property owners, residents, developers and businesses to give them some sense of predictability concerning what will happen in the area, as well as guidance for their own individual decisions for investment and preservation of the assets of the area, which provide its unique character.

GOALS AND OBJECTIVES

Goal I Enhance and protect environmental resources.

Objectives:

- Protect the Heart of the Triad's natural resources as an essential element of the plan.
- Anticipate and manage environmental changes.
- Manage storm water runoff to prevent pollution, protect property, and maintain water quality.
- Encourage protection of wildlife habitats, tree canopies, wetlands, floodplains, watersheds, and open spaces.

- Promote active and passive recreation areas within developmental clusters.
- Identify and preserve buffers between intense development areas.
- Develop policies and infrastructure to improve and enhance the viability of Heart of the Triad's existing farms.
- Promote eco/agri-tourism/businesses.

Goal II Conceptualize, plan and develop the Heart of the Triad in strategic phases to offer a range of desirable opportunities.

Objectives:

- Develop land uses that are walkable and zoning regulations that support land use objectives while protecting individual property rights.
- Promote diversity in housing and employment opportunities.
- Plan for a variety of residential development options to accommodate diverse lifestyles including higher density residential development in and near employment clusters; lower density residential development, which incorporates open space planning techniques, i.e. Randall Arendt's concepts; and multi acreage/estate developments.
- Feature existing civic and cultural facilities as focal points.
- Work collaboratively with school officials to develop land uses/site selection for public schools and encourage public schools to become nationally recognized for high performance.
- Promote lifelong learning opportunities by enhancing existing higher education institutions.

- Promote employment districts and mixed-use centers to accommodate a variety of economic development initiatives with a focus on quality job growth.
- Encourage the revitalization of abandoned commercial/industrial sites.

Goal III Promote a regional multi-modal transportation system that supports the Heart of the Triad.

Objectives:

- Because speculative roads and development corridors are not the best use of tax dollars, establish a priority program to repair, maintain, and widen existing roads as needed to support growth within the area.
- Complete the PART commuter rail program using existing rail lines.
- Add new commuter rail stations as needed to support area growth.
- Encourage high density and mixed-use development in the areas around new commuter rail stations and other designated high-density activity centers.
- Integrate transportation systems—bus, shuttle, rail, pedestrian walkways, bike paths, and other modes to connect activity centers and to create a seamless commute.
- Install bike racks on all buses, shuttles, and rail systems.



Goal IV Recruit businesses/industries that will create employment and activity centers.

Objectives:

- Coordinate recruitment, marketing and screening strategies that target both domestic and international businesses.
- Focus on businesses that produce high quality jobs with high employment per building square foot.
- Identify specialized manufacturing that supports local and regional research and development efforts.
- Identify collaborative efforts with the Piedmont Triad International Airport Authority and Piedmont Triad Partnership.
- Promote the advancement of a fiber optic infrastructure throughout the area.
- Develop environmentally sound, sustainable industries including alternative energy.

Goal V Develop cooperative organizational approaches to implement the plan.

Objectives:

- Develop a plan that includes projected areas of development, priorities for implementation, a budget for all infrastructure, projected costs, an evaluation/assessment component, and a plan for citizen input on an ongoing basis.
- Present the Heart of the Triad Area Plan recommendations as developed from this process to all jurisdictions for approval because all land in the area identified as the Heart of the Triad is either currently or will be under the

governance of one of the seven jurisdictions represented in this process.

- Develop a process for information sharing, cooperation, and coordination among existing jurisdictions to ensure consistent outcomes.

Goal VI Develop Sustainability Approaches and Standards.

Objectives:

- Focus on a broad-based, healthy economic development strategy for all income levels.
- Develop high salary primary jobs that spin-off quality secondary jobs.
- Expand existing incubation centers.
- Strive for social diversity.
- Emphasize quality community development through:
 - Best rural design practices.
 - Creative urban design practices for commercial and mixed use centers.
 - Concrete uniform design standards approved by all jurisdictions to create an aesthetically pleasing place to live and work.
 - Multi-modal transportation options. .
 - Protect the environment and natural resources.
 - Identify means to encourage green building practices, including use of LEED (Leadership in Energy and Environmental Design) standards.
 - Ensure adequate public services are provided as development occurs.

- Use tax dollars wisely and always pursue the best options for tax expenditures, in terms of cost/benefit.
- Governance will be by existing jurisdictions.
- Provide regular updates through either web sites, emails, or US mail to the community residents identified through the property tax mailing lists and other community lists.



LAND USE

Background

Existing land uses within the Heart of the Triad area vary widely. Primary uses include traditional agricultural, rural residential and small town uses. Open spaces and institutional uses are also intermixed. In recent years, new development has included many scattered residential and business uses that produce an inefficient, conflicting and unattractive pattern of land uses. This pattern is a barrier to the area achieving its potential, in terms of compatibility and quality of community, efficiency of services and transportation, resource protection and achieving highest and best uses of the land. Some of the new development in the area has been more carefully planned development, which gives an indication of the benefits and potential for coordinated planning for the area.

The land use goal shown above and a number of land use objectives below were developed early in this process to help guide land use planning for the area. They represent general statements of desired outcomes and values to be factored into the land use plan for the area.

All seven of the surrounding jurisdictions participating in the Heart of the Triad planning effort have adopted future land use plans, which indicate preferred general land use types in different locations within their respective planning jurisdictions. These land uses have been synthesized into common set of land use classifications shown below. The classifications are both consistent with these plans and are also felt to represent “best practices” in making the future land uses in the Heart of the Triad truly a model community.

Development limitations on land in the area include floodways, stream buffers, wetlands and steep slopes. These are shown on the Development Constraints Map. These constraints are combined with the objectives, land use classifications and adopted plans to form the basis for the Draft Land Use Plan Map that follows in this section. (See Figure 1)

In the planning process, land use objectives, as shown in the previous section, and strategies, detailed below, were developed. The objectives and strategies were used as guiding principles in the planning process to create the land use plan.

Land Use Strategies

- Determine the environmentally sensitive features of the area (watersheds, floodplain, stream corridors, steep slopes, wetlands, etc.) to identify lands for protection
- Locate existing bona fide farms and voluntary agriculture districts for potential agricultural areas
- Based upon environmental constraints, identify land that can be potential development nodes or areas for residential, non-residential and mixed use development
- Identify existing public open space and recreational lands and identify potential open space and recreational opportunities that can assist in protecting environmental features and serve area residents (both existing and future)
- Map adopted land use policy for each jurisdiction in the area and evaluate to identify potential problems and policy conflicts.
- Identify existing land use of area and evaluate to identify potential conflicts.
- Identify existing civic, cultural and historical resources in area to determine suitable land uses and development patterns.
- Identify abandoned commercial & industrial sites to determine suitable re-use opportunities given location with respect to transportation systems and public infrastructure.
- Provide locations for various types of residential and business development based upon the anticipated demand in the area and allowing for diversity in housing options.
- Target for residential conservation development those areas without public water and sewer and with large environmentally sensitive lands or with significant large lot residential development.
- Target for higher density development those areas in close proximity to existing or future employment centers, activity centers, or mixed use centers where existing & future transportation systems and public infrastructure can service the development.
- Identify suitable and sufficient land for anticipated employment needs where existing & future transportation systems and public infrastructure can service the development.
- Strategically site mixed-use centers at significant roadway intersections, potential commuter rail centers, and along potential transit corridors.



- Identify existing roadways and planned roadway improvements.
- Identify transit services and planned transit improvements
- Identify a suitable location for commuter rail station(s) that can be surrounded by mixed use and transit oriented development opportunities

Land Use Classifications

Background – a central premise of the Heart of the Triad project is to develop a distinctive place with strong communities that preserve the existing character and assets of the area while producing high quality places in which to live, work, shop and recreate. The land use plan for the Heart should intermix open space, residential and business development in appropriate and designated locations throughout the area. The plan should also link each area closely through different transportation modes, to support development that is attractive, functional and sustainable. In particular, the land use plan should indicate significant sites for attracting businesses and high quality jobs to the area.

The land use classification descriptions that follow are established for use in Heart areas designated in the plan. They first describe open space uses, then business uses, followed by residential uses. Each category tries to describe different types of uses within that category.

In order to help produce Heart communities that are attractive, functional and sustainable, certain limited land uses need to be prohibited and certain design standards required. All classifications

would prohibit new heavy industrial uses and substantial outdoor storage areas. They would also encourage high quality unified site design with enhanced building facades, as well as sites with signage, screening and lighting restrictions and significant landscaping and tree preservation.

Open Space

- **Parks** – Intended to identify the publicly owned parks.
- **Environmental Protected** – Intended to identify the areas that consist of FEMA designated flood zones, and North Carolina designated water supply streams and buffers along those streams.
- **Private Open Space** – Intended to identify “bona fide farms” as identified on tax records; properties that have recorded conservation easements; and significant areas reserved as open space that are associated in planned development.
- **Private Recreation** – Intended to identify existing and approved golf courses; and private recreation areas.

Business Land Uses

- **Business Center** – intended to accommodate a wide variety of employment uses, such as office, research, and corporate park, institutional and related uses. It requires a unified design scheme, including enhanced facades on the buildings, substantial surrounding landscaping, restrictive site lighting and signage, full screening of loading areas and permits no outdoor storage.
- **Business Support** – intended to accommodate a wider variety of office, corporate park, warehouse, flex space, light industrial,

retail, hotel and related uses. It sets standards for development including limited screened outdoor storage and loading areas, enhanced front facades, and unified landscaping, lighting and signage.

- **Activity Center** - intended to accommodate compatible mixed uses in a walkable setting, with higher density development. Locates jobs, shopping and housing within walking distance of each other. Can be either a larger community scale or smaller village scale. Uses include office/research, multi-family residential, high density SF residential, compatible retail, hotel, institutional and related uses. Would prohibit low density housing, heavy industrial, incompatible retail and other uses not supportive of functional, mixed use development. Would include common design guidelines for buildings and streetscape, strong links between sites and to open space and public facilities. Such centers are designed to accommodate quality regional and local transit service, strong internal and external bike and pedestrian linkages and connections to public services and facilities. Guidelines would differ according to the scale and functions of each activity center.

Residential Land Uses

- **Rural Residential/Agricultural** - Intended to provide residents and visitors with views of rural vistas and scenic open space by accommodating agricultural uses; large parcel (minimum lot size 5 acres) residential development; open space and conservation subdivisions. These uses would generally be where public water/sewer is not available. Area would be seen as target area for agricultural preservation measures and



incentives. Rural crossroad communities, such as Colfax, may combine residential, commercial and institutional uses in a rural setting.

- Low Density Residential** - Intended to accommodate low-density residential subdivisions with densities of 1-3 units per acre, and low intensity institutional and recreational uses.
- Medium Density Residential** - Intended to accommodate medium-density residential development in walkable communities with densities of 3-7 units per acre, medium intensity institutional and recreational uses and neighborhood services.
- Traditional Neighborhood Developments (Mixed Use)** – Intended to accommodate residential and commercial buildings, public spaces and amenities, and institutional uses are mixed in a compact, pedestrian-oriented arrangement designed to lessen the need for a total reliance on the automobile and to generate a sense of community. Using these TND principles, three major components must be considered: residential development, neighborhood-serving commercial development, and the layout of the street system. The intended residential densities for TND areas should be a net average of at least five dwellings/acre for the total TND tract.
- High Density Residential** - Intended to accommodate high-density multi-family residential development in walkable and transit-oriented communities with densities of more than 7 units/acre and located within activity centers or in close proximity to major employment.

Land Use Plan

The Land Use Plan map that follows this section was put together to reflect the following essential inputs:

- Land use related objectives and strategies preceding this text.
- Existing land uses in the area that are expected to remain in the area long-term.
- Development constraints that limit development on some sites and which form much of the open space in the area (see Development Constraints Map).
- Adopted future land use plans from jurisdictions in the area.
- “Best development practices” that reflect general market and development trends, efficient and wise use of land, and creation of sustainable, accessible and high quality places.

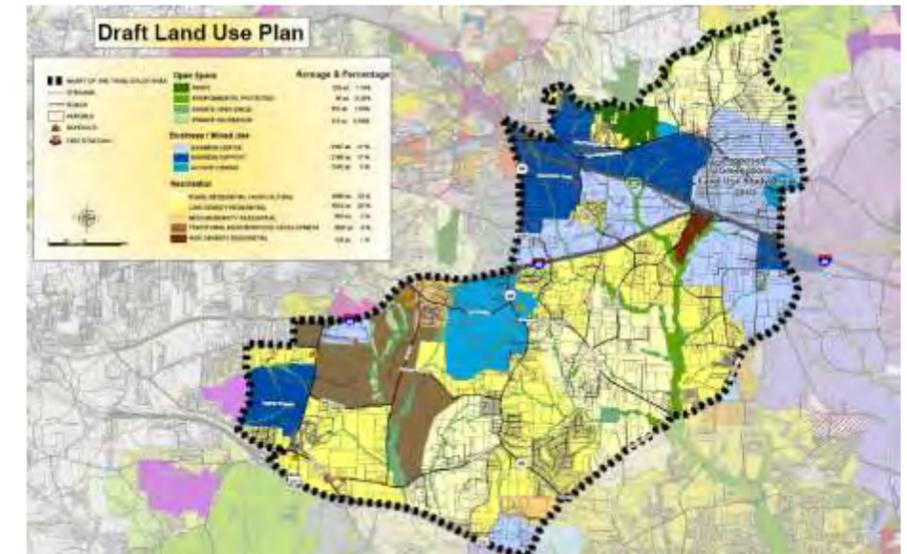
The Land Use Plan identifies future land uses among the general land use classifications. Approximately 2/3 of the land is identified for residential uses 1/3 for business uses, totaling ten (10) square miles. Actual opens space resulting with development of the Heart of The Triad will be greater than that percentage shown on the map. Future developments, private farm, and forested areas that may be preserved will add substantially to the amount of open space in the area.

Zoning And Land Use Plan Implementation

Zoning is a major tool expected to be used to implement the Land Use Plan for the Heart of the Triad. There are many different types of zoning districts that could carry out and achieve the land uses recommended in this Plan. Each of the seven jurisdictions involved with this planning process (2 counties and 5 municipalities) administer

similar but different zoning ordinances. It will be necessary or advisable for some jurisdictions to add or modify zoning districts and standards within their ordinances in order to meet these land use classifications.

Figure 1



Larger map located at the end of the document.



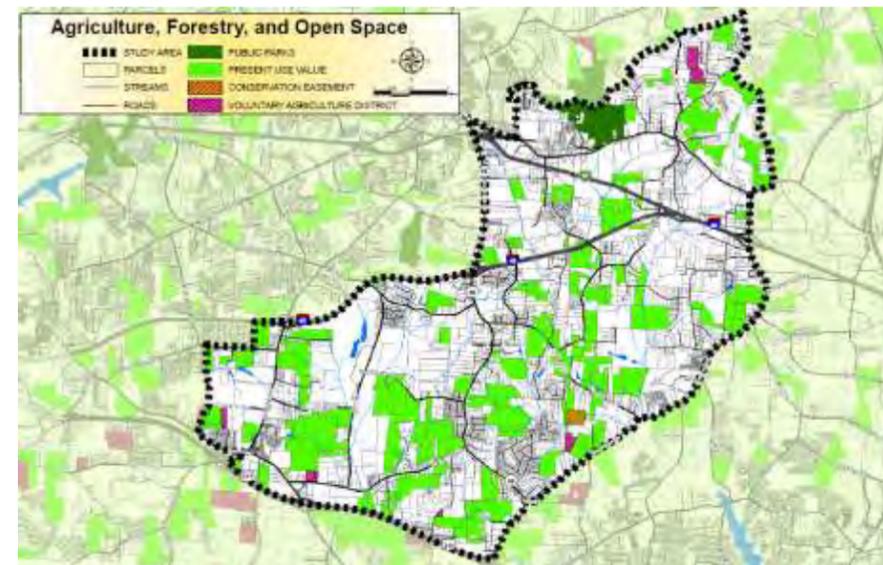
AGRICULTURE AND OPEN SPACE PRESERVATION

The central area of the Piedmont Triad Metropolitan Region historically was an agricultural area. Many descendants of the original settlers still live in the area. Along with those residents, many new property owners have a strong sense of stewardship and preservation of the agricultural traditions and way of life. The large tracts of land that traditionally contained working farms and provided open space are quickly disappearing. This issue is not confined to the Piedmont Triad Metropolitan Region; according to the American Farmland Trust, North Carolina loses an average of 34,460 acres of farmland each year to development. The latest USDA Census of Agriculture shows that Forsyth County alone lost 114 farms totaling over 4,000 acres from 1987 to 1997. The Agriculture, Forestry and Open Space Map illustrates large scale of rural landscape that still exists in the Heart of the Triad. (See Figure 2)

Knowing that agricultural areas in metropolitan regions are very susceptible to developmental pressure, the challenge is to determine ways of encouraging existing and new agriculture, and preserving open space. In order to achieve such a goal, there must be a balance between the inevitable development that will result from a growing population and the desire to keep the community's agricultural landscape and quality intact. Many residents have made it clear that balance must also be attained without severely restricting landowners from making decisions about their properties. There are very strong opinions concerning property owners' rights in the area that must be

considered. It must also be strongly emphasized, however, that protecting irreplaceable farmland now will benefit the area and the region for future generations.

Figure 2



Larger map located at the end of the document.

It is unlikely any county or municipal jurisdiction would adopt agricultural zoning districts that would prohibit the development of agricultural land. However, there are other agriculture and open space preservation tools that can be considered:

- Promote and encourage agribusiness.
- Promote farm heritage and agri-"culture."
- Establish voluntary agricultural districts.
- Re-establish funding for the Forsyth County Farmland Preservation Program and consider a similar effort for Guilford County.
- Encourage the donation of agricultural conservation easements to protect valuable farmland from development.
- Grantors retain the right to use their property for farming, horticulture or other purposes that do not limit agricultural viability. They continue to hold title to the property but may restrict public access, sell, give or transfer their property as they so desire.
- Continue to promote the present use value taxation program for farmland. Land is taxed at its resource value instead of its development value and many farmers in the planning area already take advantage of this tax benefit.
- Encourage community-farming initiatives, such as cooperatives. An example of a cooperative would be a group of small organic beef farmers, who sold their cattle under one contract to an organic meat processor. By selling together, they would be in a stronger position to guarantee a supply and obtain a better contract price.
- Pursue "value-added" opportunities. An example of value-added would be a strawberry farm that produced jams from their strawberries. When selling the jam they would be getting a financial return on the strawberries and the production of jam.
- Explore educational "farm experience" opportunities. Agritourism would bring awareness of agricultural life to urban and suburban dwellers, promote good working relationships with nearby neighbors and bring a source of income to the farmers.
- Explore the profitability of transitioning crops in the area. Transitioning (switching) crops by replacing a product that



is becoming less profitable or too expensive to market and maintain to another crop may produce better returns for local farmers.

- Explore mentor programs, which match near-retirement age farmers with younger ones just starting out. This ensures the transfer of many years of knowledge to the next generation of farmers. These programs may also help young farmers to purchase working farms by providing lower interest rate loans and helping them to find suitable properties.
- Explore Community Supported Agriculture. Community Supported Agriculture (CSA) is a new approach to growing, marketing, and distributing food. CSA is about community and direct connections – between farmers and consumers and between consumers and healthy food. Through CSA, a consumer buys directly from the farmer for a full growing season.
- Work with the Cooperative Extension Offices and the Natural Resources Conservation Service to provide support and education to local farmers.
- Collaborate with the southeastern office of the American Farmland Trust in Graham, NC, as a source of information and research.
- Collaborate with groups such as the local 4-H clubs, the Triad Cattlemen's Association and the Triad Horsemen's Associations as networks for social interaction and information sharing.

- Encourage the establishment of permanent open space areas as development of property occurs in the area, in order to both provide passive and useable green space on individual sites, and to meet watershed and other ordinance requirements throughout the area.

To implement the above tools a strong grass root effort from the active farmers and large tract property owners is required.



ECONOMIC DEVELOPMENT

The Heart of the Triad's definition for "economic development" is pursuing a sustainable increase in the economic well being of the area through a joint effort of the jurisdictions of Guilford County, Forsyth County, City of High Point, City of Greensboro, City of Winston Salem, Town of Kernersville, and the Town of Oak Ridge in job creation, job retention, tax base enhancements and quality of life. The Heart of the Triad is the central area of the Piedmont Triad Region, which is in the top 40 of metro regions in the United States, with a regional population exceeding 1.5 million. Due to the Heart of the Triad's strategic central location, substantial economic development is achievable. The economic development focus of the Heart of the Triad planning process is to create a dynamic place in the Triad region that goes beyond what any one jurisdiction can do alone. The goal is to guide the economic dynamics to complement the efforts that are currently being undertaken in the Winston-Salem, Greensboro, High Point, Kernersville and Oak Ridge downtowns and business parks.

These economic development efforts in the Heart of the Triad area are not intended to compete with other economic development efforts in the downtowns or other parts of the jurisdictions involved. Instead, the objective is to support development of a unique economic development area in the center of the region that would primarily attract businesses from other areas outside the region.

The Heart of the Triad Land Use Plan is being proposed as a growth management tool to guide for the creation of jobs in designated job centers and protection of the surrounding residential and rural areas.

Based upon 2002 census data the area contained 9,775 persons and an employment base of 13,699 (see methodology documentation in back). If the proposed Land Use Plan is adopted by the jurisdictions, the projected 2035 population would be 57,782 and potential employment 82,190. The projections are based upon a 25% greater development density than what is traditionally realized in the Triad and the fact that the Land Use Plan's "Business Center," "Business Support," and "Activities Center" land use areas will make available over 4,000 acres of "greenfield" industrial and commercial development area.

The amount of new jobs will ultimately be determined by the type of developments that are attracted to the area. Currently, four economic development organizations provide direct economic development recruitment to the Heart of the Triad area. They are Piedmont Triad Partnership, Greensboro Economic Development Alliance, High Point Economic Development Corporation, and Winston-Salem Business Incorporated. They have identified clusters of interconnected industries that have strong potential of being recruited to the Triad. The industries include advanced manufacturing; creative enterprises and the arts; health care; logistics and distribution; aviation; financial & business services; and life sciences. Both Greensboro and Winston-Salem have strong research and development initiatives in the biotech, pharmaceutical and life science industries. The Heart of the Triad's designated "business center" and "business support" areas provides development sites for advanced manufacturing facilities with larger footprints for products developed in those research efforts. Also, continuing the Aerotropolis planning collaboration of the Piedmont Triad Partnership, Piedmont Triad International Airport Authority and local jurisdictions of the Triad has great potential to assist in

implementing many of the economic goals and objectives of the Heart of the Triad Plan.

By providing the economic development groups a multi-jurisdictional land use plan, the groups can better coordinate their recruitment and marketing. That coordination will greatly assist in achieving employment growth that is sustainable. Focusing on businesses that produce high quality jobs with high employment per building square foot will need to pursue to achieve that sustainable employment growth. Specialized manufacturing that supports local and regional research and development efforts will need to be identified during that recruitment. The recruitment of high salary primary jobs, that spin-off quality secondary jobs will assist in achieving the economic development objectives of a broad-based, healthy economic development for all income levels and social diversity. The opportunity exists to identify means to encourage green building practices and developing environmentally sound, sustainable industries including alternative energy. Reuse or "recycling" of existing buildings adapted to higher development standards, when possible, should be encouraged. This will help preserve the architectural character that contributes to the identity of the area. The old industrial area along West Market Street has the potential to be redeveloped in order to provide additional green development opportunities.

The Heart of the Triad's strategic central location and the proximity to the Piedmont Triad International Airport will allow a focus on businesses that produce high quality jobs with high employment per building square footage. The economic development groups will offer



development sites for specialized manufacturing that supports local and regional research and development efforts, and identify cooperative efforts with the Piedmont Triad Airport Authority.

The jurisdictions have the opportunity to create a strong sense of place through uniform design standards that would create an aesthetically pleasing place to live and work. A higher quality development environment will promote sustainable economic growth.

The participating jurisdictions of Guilford County, Forsyth County, City of High Point, City of Greensboro, City of Winston Salem, Town of Kernersville, and the Town of Oak Ridge, along with their economic development groups, have the opportunity to promote the economic well being of the Heart of the Triad. A healthy and vibrant Heart of the Triad will benefit the entire Piedmont Triad Metropolitan Region.



DEVELOPMENT STANDARDS

Just like allowing the development of a large lot residential subdivision in an area planned for business development is inappropriate, so is allowing the development of a new business in a business area at lower standards than the surrounding business development. Development standards help assure quality development, protect public and private investments, and protect adjacent properties. The proper use of site design and building design standards can produce desirable land developments and enhance the marketability of the overall area. In addition, these standards can be critical in driving economic development, particularly for the higher paying and technology oriented jobs.

The Heart of the Triad plan focuses on enhancing the area, protecting natural resources, maintaining character, promoting higher quality jobs, and providing quality development. To achieve the stated goals and objectives, standards for development must be elevated and applied consistently by the jurisdictions. The recommended development standards that follow are intended to create the desired land and building form envisioned by this plan and intended to protect adjoining jurisdictions and individual properties.

Common Standards

Jurisdictions need to establish standards that are applicable and common to all land development in the Heart of the Triad, regardless of the land use classification. The following standards should be applicable to all types of land development to assure plan consistency.

Environmental Resources: Development in each jurisdiction is subject to regulations that pertain to erosion and sedimentation control, wetlands, floodplains, watershed protection. Each jurisdiction should review their individual environmental regulations to assure protection is provided and should make changes where needed to protect air, water, soil resources. In addition, land development should be clustered and concentrated on sites with environmentally sensitive areas so as to further protect these resources.

Sustainability: Development should consist of well-designed sites and buildings, insuring quality and sustainability. Jurisdictions should encourage and support economic strategies for diverse job creation and for green building practices such as LEED (Leadership in Energy and Environmental Design).

Existing Character: Development should protect adjoining land uses and maintain existing character through the use of buffers that separate incompatible land uses, the use of landscaping to soften development edges, the preservation of trees, the strategic integration of open space in land development, the use of building design to insure compatibility, and the restriction of intense and direct lighting upon adjoining properties. In addition, jurisdictions should assure that development is concentrated in accordance with this plan and that residential density objectives are met to prevent spillover suburban development into designated rural areas.

Land Use: Jurisdictions should prevent the development of heavy industrial uses and uses with substantial outdoor storage and processing, and adhere to the land use designations established by this plan

Signs: Jurisdictions should consider prohibiting or limiting outdoor advertising signs (i.e. billboards) in the area. Also, on-premise signs should be sized and scaled to not dominate the streetscape, yet provide adequate identification for businesses, institutions and other development.

Public Water & Sewer: With the exception of development in the Rural Residential/Agricultural area, it is recommended that future development should utilize public water and sewer services to protect environmental resources and assure that development is consistent with this plan.

Pedestrian-Friendly: Future development should be pedestrian-friendly, with the level of walkability or pedestrian mobility dependent upon the land use classification and transportation objectives. With the exception of development in the Rural Residential/Agricultural area, future developments should provide sidewalks.

Multi-modal Transportation: Jurisdictions should plan for multi-modal systems of transportation and assure that development provides necessary street improvements, sites are designed to support transit and other forms of transportation, and development is concentrated around existing and planned activity centers and transit stations.

Utilities: Jurisdictions should require that electrical utilities for development be underground.

Unified Development: Jurisdictions should encourage parcel assembly to create unified developments which provide for efficient land



development patterns, proper controls on signage, landscaping, including tree preservation, and assist in achieving transportation plans.

Open Space Standards

This plan classifies open space as either publically owned parks, environmental protected lands, private open space and private recreation. Regardless of ownership, open space can be classified as either passive or active, both of which are encouraged.

Additional open space will occur in the Heart of the Triad through open space acquisition, dedication and integration as land development occurs. Where needed for public use and purposes, such as for recreational use, individual local governments can purchase open space or such land can be dedicated to them through the land development process. All jurisdictions should require that development provide and integrate open space, whether passive or active and whether public or private. Where greenways are planned, jurisdictions should provide for land dedication and arrange for the construction of trails as development occurs. Cluster development in suburban areas and conservation subdivisions in rural areas can protect open space. Each jurisdiction should utilize these approaches to provide for the acquisition, dedication and integration of open space as development occurs.

Residential Standards

Residential land use is classified in this plan as Rural Residential/Agricultural, Low Density Residential, Medium Density Residential, High Density Residential or Traditional Neighborhood Development. These classifications establish the densities that development needs to meet to insure plan consistency. In addition to

density, there are specific standards that residential development should meet, dependent upon the land use classification.

Rural Character: To maintain the plan's desired rural/agriculture character as specified, local governments should use a combination of water and sewer service area restrictions, so as to not encourage intensive development, and zoning standards so as to achieve an effective density in the rural area of one dwelling per 5 acres. In addition, special attention should be paid to rural crossroads communities, such as in the Colfax area, along W. Market Street/E. Mountain Street, to see if owners in this area are interested in establishing a zoning overlay or other land use tool that might help preserve some notable elements in the traditional character of this area as properties change and develop in coming years.

Conservation Subdivisions: To maintain existing character and provide for compatible development in the designed rural and agriculture areas, local governments with jurisdiction over the rural designated areas should have standards for conservation subdivisions and encourage their use.

Housing Diversity: A mixture and a variety of residential types should be provided.

Neighborhood Development: To provide for complete neighborhoods, institutional and recreational uses should be integrated into residential developments along with common open space.

Walkable Developments: Development sites in medium and high density areas need to be designed to promote walkable communities in addition to being supportive of transit.

Business Standards

Common Business Standards: The following standards are applicable to all future business development (non-agricultural) in the Heart of the Triad. Jurisdictions should assure the consistent application of these standards to land development.

Land use—to protect property value and provide for business development as specified in this plan, local governments should make changes to development regulations to assure that large lot single family subdivisions do not preempt the development of land for business purposes.

Unified development—each development should establish a unified design for landscaping, signage and lighting.

Signs—excessive and large signage can lead to visual clutter, public safety problems and distract from quality development; therefore, development entrance signs should be monument type and scaled appropriately for the development, limited to no taller than 15 feet in height; freestanding signs should be limited in both area and height and should not exceed 8 feet in height; and wall signs should not project above the roof line of buildings.



Lighting—on-site lighting should not be designed to project off-site or at an intensity where it is used to attract attention to the site or development.

Pedestrian circulation—sidewalks should connect all principal buildings within a development and should link to greenway trails, pedestrian amenities and transit locations within the development.

Landscaping—attractive landscaping is important to development design and should be used in parking lots adjacent to public streets to screen vehicles from the street, separate parking bays, accent building foundations, and draw attention to development entrances; because mature trees add value to a development, landscaping incentives should be offered for tree preservation.

Fencing (non-agricultural) —the use of barbed wire should be prohibited and chain-link fencing should be limited to the side or rear of buildings and not located between the principal building and the public street; development should provide for a uniform or common fence design that can be utilized for properties within a development.

Ground level equipment & dumpsters—mechanical, HVAC and other similar types of equipment should be located to the side or rear of the principal building and screened from view from public streets and adjoining properties; dumpsters and similar solid waste containers should be fully screened and enclosed, and should be located behind the rear building line of the principal building where feasible.

Vehicular service areas (including drive-thrus and canopies)—drive-thrus, menu boards, gasoline pumps, canopies and other vehicular service areas on a site should be located to the side or rear of principal buildings.

Stormwater control devices—bio-retention and natural infiltration areas that have a low visual impact are encouraged where feasible; where stormwater control ponds are needed, they should not be located between the principal building and public street unless there is no other feasible location and in such cases the pond should be landscaped with plantings so as to minimize the view of the pond from the public street.

Common open space—development should provide open space, connected where possible to greenways, and should include sites other than unusable floodplains and steep slopes so they can serve as potential amenities.

Accessory buildings—buildings accessory to principal buildings should be located behind the rear building line of the principal building and should be of similar design and materials as the principal building if the accessory building is visible from the public street.

Building façade design—dependent upon which building facades a business land use classification designates for treatment, the following features should be utilized:

Materials—facades should be of masonry or similar construction material (i.e. brick, concrete, textured concrete block, stone, etc.) and should not consist of any metal, plain concrete block or vinyl material.

Walls—façade walls should provide articulation through the use of defined pedestrian entries, the use of a variety of quality materials, and the use of patterns and repetition to maintain visual interest through façade modulation and design treatments such as recessed windows, material and texture changes.

Windows—to facilitate the design of facades that have visual interest, buildings should utilize recessed windows and visually prominent sills, lintels or other forms of framing and trim.

Colors—façade colors should be of low reflectance, subtle, neutral or earth tone colors and the use of high intensity colors, metallic colors, black or florescent colors is prohibited; building trim and accent areas may feature brighter colors or black; however, neon tubing is not an acceptable feature for building trim or accent elements.

Roof-mounted equipment—equipment mounted to a building roof should be screened from view from the public street.

Business Support: These areas accommodate office, corporate park, warehouse, flex space, light industrial, retail, hotel and related business uses. Because of the variety of land uses, development standards must be designed to accommodate the needs of business and assure quality development.



Loading areas—should be located to the side or rear of principal buildings and if located to the side of buildings, should be screened from view from the public street.

Outdoor storage & processing—should be located to the side or rear of principal buildings and screened from public view from public streets and adjoining properties.

Building façade design—façade design treatment (specified in the common business standards) should be applicable to all building facades that face public streets.

Business Center: Business centers contain a variety of employment uses including office, research, corporate park, institutional and related uses. The focus is on the establishment of quality jobs and land uses with high employment per square foot of building. Jurisdictions should insure that land is not underutilized with large buildings with low employment uses, such as warehouse space where such uses are more appropriate for business support areas.

Unified development— the assembly of parcels to create a site sufficient to support business center development is necessary to provide for unified developments with common standards for signage, landscaping, lighting and other design features.

Parking—should be to the side and rear of buildings and where located between the principal building and the public street, low-

level landscaping should be provided to screen vehicles from the street.

Service or vehicular bays—should be located so as to not face the public street to which the building fronts.

Loading areas—should be located to rear of principal buildings and screened from view from public streets.

Outdoor storage & processing—should be prohibited.

Building façade design—façade design treatments (specified in the common business standards) should be applicable to all front and side facades of a building.

Activity Center— Activity centers provide for walkable, mixed use developments that contain high density residential development and do not allow land uses such as low density residences, heavy industrial, automobile oriented retail and other uses that are not supportive of functional mixed use development. Specific standards are needed to insure this variety of land uses are in harmony.

Unified development— the assembly of parcels to create a site sufficient to support mixed use development is necessary to provide for unified developments with common standards for signage, landscaping, lighting and other design features.

Mixed uses—uses in activity centers should be a mixture of several compatible uses in close proximity to each other and in a layout that

supports both strong pedestrian and vehicular connections; in addition, industrial, heavy and large scale commercial, and single-family detached residences are not considered supportive uses in such centers.

Street orientation—layout of development should include a strong orientation of buildings to streets; for example, parking should generally be located to the side or back of buildings, all buildings should have an entryway toward the street, and the ground level of buildings should be dedicated primarily to retail or other activity oriented uses.

Specific design guidelines—activity centers may vary by scale and function; therefore, the local governments having jurisdiction over an activity center should establish individual site and building design standards for each specific activity center; for example, Forsyth County and Kernersville previously established guidelines for the activity center at NC 66 and Old Salem Rd.; these guidelines should be reviewed to insure consistently with this plan's development standards and other local governments should develop similar types of development guidelines tailored for each activity center.

Application of Standards

Once the policy recommendations of this plan are incorporated into local comprehensive and land use plans, then the local governments can start the process to apply development standards to new development. Initially, the local governments will need to collaborate and refine these recommended development standards to assure each jurisdiction is consistent in its application to development. When there is agreement by



the jurisdictions on the specific standards, then each can incorporate them into local policies, ordinances and other regulations.

The application of specific development standards may take multiple forms, dependent upon the preferences of the local government, their development regulations and their policies. Use of the standards will likely occur within three categories. First, application can occur through changes to the local government's development regulations, such as amending current zoning districts, establishing new zoning districts or through other changes in development regulations. Depending upon the preference and need of the local government, this could include the use of overlay zoning districts, floating districts in addition to conventional zoning districts. Second, these development standards can be implemented through the use of conditions in granting zoning approvals. This can occur through legislative zoning processes such as conditional zoning or quasi-judicial processes such as special use permits. And third, the standards can be implemented through a newer tool, development agreements. Development agreements are more appropriate for large scale development and they can provide for development standards that are negotiated outside the zoning process. It is likely that all three tools may be used by the local governments to implement the recommended development standards.



TRANSPORTATION

Since the 1940's low density residential development, regional malls, and office parks have created an automobile dependent development pattern. Transit oriented development, multi-modal stations, complete streets, smart commuting are current transportation and land use buzz words for thinking of communities and mobility in a different light. The Heart of the Triad plan seeks to apply an integrated approach between the preservation of future rural areas, sustainable development in areas where land development is encouraged and a multi-modal transportation network that supports the entire area.

The State of North Carolina, like most other states across the country, has billions of dollars of unmet needs related to highway and road project. Yet, gas tax and other transportation improvement revenue have been on the decline. Simply put under the current system new roads and highways will not be added to project list and built at the same pace as they have for the past 20 years. To meet the mobility needs of area residents, greater reliance on public transportation must be promoted.

In 2009, the North Carolina Department of Transportation adopted a new method for evaluating new projects. NCDOT has developed a two tiered project prioritization process. The first tier consists of projects with a 95% probability, based upon need and available funding that can be completed within 5 years. The second tier is projects that are identified and priority ranked locally and submitted to NCDOT. These projects are then priority ranked statewide and added to the first tier of projects as others are completed and funding is available. Influence on transportation planning and the construction of future projects are best achieved through working

with local MPO's and the NCDOT Division Offices. While a land use plan provides valuable information that leads to an efficient transportation network it is not an effective mechanism for influencing active studies and projects.

As traffic congestion increases in the area, priority should be given to the widening of existing roadways and enhancement of transit service as a means to manage increases in traffic congestion in lieu of the construction of new roadways along new alignments. The majority of roadway improvements within the study area are the result of regional network enhancements and not existing or proposed development of the area. Yet, network enhancements currently being studied would have a profound impact in the area if constructed.

Recommendations Transportation Planning and Roadway Network:

1. Accelerate the widening of W. Market Street from NC 68 to Kernersville.
2. Incorporate the recommended Heart of the Triad land use plan in evaluation of current transportation projects and in the preparation of 2013 Long Range Transportation Plans.
3. Encourage NCDOT to focus on safety improvements, maintenance of roadways and bridges as opposed to the construction of facilities on new alignments.
4. Encourage frontage roads along Business I-40 and I-40 by having the MPOs work together to determine if the new Old Greensboro Road alignment can be extended east to Sandy Ridge Road north of I-40 and the proposed Kernersville Medical Parkway be extended east to Sandy Ridge Road south of I-40.
5. Work with the High Point Urban Area MPO on the North-South Connector feasibility study and express support for improvements to existing roadways, which is supported by the proposed Heart of

the Triad land use plan, as opposed to a new alignment, which would bisect areas proposed for future low density residential development.

High-density residential development and employment centers should be tied into the regional transit network and internally supported by a multi-modal transportation network.

From the transportation perspective, communities should incorporate walking (sidewalks), biking (bike routes), transit (shuttles, bus and rail) and cars (roads and highways) as discrete yet integrated movement networks. Sidewalks and bicycle paths do not always need to parallel streets to effectively move people from point A to point B. Bus transit use highways and often need dedicated lanes to effectively move through congested areas.

Recommendations for Creating Mobility Choices:

1. Evaluate the following locations for a commuter rail or bus rapid transit station: Sandy Ridge Road and W. Market Street intersection and W. Market Street just west of the entrance to Triad Park.
2. Evaluate the following locations for express bus sub-regional transfer stations or stops: I-40 West at NC 66, I-40 West at Union Cross Road.
3. Connect new development surrounding connections to the regional transit network with new shuttle service and provide an internal network of bike ways and pedestrian paths to access the network.
4. As development occurs in the area it should be held to a higher standard, either thorough zoning ordinance regulations or conditional use zoning, than typically found in the Triad that will result in community's and neighborhoods being less dependent on single occupancy travel.



This chart reflects existing recommendations for roads from the currently adopted plans from the three MPOs with jurisdiction in the area. It is included here for information and reference purposes only. The map, on page 28, does not reflect the transportation-related recommendations of the Heart of the Triad Plan that are specified on pages 17 and 19 of the plan. Please refer to those pages for detail on what changes or amendments are recommended to the existing transportation plans when they are next updated. The Stakeholders Committee supports the improvement of existing roadways in the area to enhance travel safety and to accommodate increasing travel demands; supports the development of a public transportation system to serve the area; supports the integration of adopted land uses into future transportation planning, but does not see the need for the North-South Connector Project nor the I-73/74 Airport Connector Project.

Consolidated MPO Thoroughfare Plan Improvements in the Heart of the Triad Area

Street/Highway	Map ID	Description	Length (miles)	Existing cross-section	Horizon Year # Lanes	Federal Functional Class	Total Cost	MPO	SPOT Rank	NCDOT ID
Glenn Hi Road Extension	A	Union Cross Road to NC 66. New proposed multi-lane urban boulevard.	n/a	n/a	4 lane divided w/ bike lane & sidewalk	Local	\$49,214,000	WSUA	NR	n/a
I-40 Connector	B	New facility from I-40 to I-73/74 Connector.	n/a	n/a	n/a	Freeway	\$46,354,000	GUA	NR	n/a
I-73/74 Connector	C	Winston-Salem Beltway north of Kernersville to NC 68 west of Greensboro. Multi-lane freeway on new location. Programmed for planning and environmental study only.	n/a	n/a	n/a	Freeway	n/a	WSUA	NR	I-4924
Interstate 40	D	Widening from US 311 to Guilford County. Widen freeway to six lanes.	8.6	4 lane freeway	6 lane freeway	Interstate	\$95,056,000	WSUA	NR	FS-0609A
	E	Widening I-40 to six or eight lanes from Forsyth County line to Bus. I-40.	-	4 lane freeway	6 to 8 lane freeway	Interstate	n/a	HPUA	12	FS 0609A
Johnson Street / Sandy Ridge Road	F	Widen to multi-lane facility Johnson St/Sandy Ridge Rd from Skeet Club Rd to I-40. New alignment from just north of Sandy Camp Rd to Endotrail Rd.	4.4	2	4 lane divided with grass median	Boulevard	\$18,300,000	HPUA	8	U-4758
Macy Grove Road	G	Extend Macy Grove Road to a multi-lane boulevard from Industrial Park Dr. to North Main St. (NC 150). Programmed for planning and environmental study only.	1.5	2 lane	Interchange and 4 lane divided w/ bike lane & sidewalk	Local / Collector	\$19,900,000	WSUA	NR	U-4734
	H	Build a new interchange at Business 40; widen Macy Grove Road to a multi-lane boulevard from Industrial Park Dr. to North Main St. (NC 150).	1.9	2 lane	Interchange and 4 lane divided w/ bike lane & sidewalk	Local / Collector	\$40,400,000	WSUA	NR	U-2800
North-South Connector	I	Construct a new multi-lane facility on new location from US 311 to I-40.	n/a	n/a	4 lane divided with grass median	Freeway	\$224,783,000	HPUA	11	FS 0707B
Sandy Ridge Road	J	Widening from I-40 to West Market Street.	1.0	2 lane	4 lane divided	Collector	\$6,274,852	GUA	14	n/a
	K	Extension on a new alignment from West Market Street north to I-40 and I-73/74 Connector, including interchange. I-40 and I-73/74 Connector is a new facility.	1.0	n/a	4 lane divided	Minor Arterial	\$16,975,600	GUA	22	n/a
West Market Street	L	Main Street in Kernersville to Crosscreek Road.	2.8	2 lane	4 lane divided	Minor Arterial	\$19,900,000	WSUA	13	U-3617
	M	Bunker Hill Rd. to Forsyth County Line	3.6	2 lane	4 lane divided	Minor Arterial	\$19,900,000	GUA	19	U-3617

NR = No priority ranking n/a = Not Available **Bold = Funded Project**

As of January 2010



The Network: Now and For the Future

The majority of the road network in the area consists of two lane roads. The upper half of the study area is bisected by I-40 and Bus, I-40. Development along W. Market Street and Union Cross Road has necessitated widening and interchange improvements along those corridors. Two roadways, serving a significant regional role in the network, that the cut through the area are W. Market Street connecting Kernersville to Greensboro and NC 66 connecting Kernersville to High Point. Two other major corridors, US 311 and the Squire Davis / Sandy Ridge Road corridor form the southern boundary of the area.

As mentioned earlier, major roadway enhancements being planned or studies within the area are the result of regional congestion challenges and not existing development. Additionally the proposed land use for the area does not generate the need for development of roadways on a new alignment except for the Glenn Hi Road extension. Refer to map in the appendix entitled Consolidated Thoroughfare Plan Improvements in the Heart of the Triad Area.

There are three roadway enhancements currently planned or being studied that would have a significant impact on the area: a portion of the Kernersville Boulevard (F and G, Macy Grove Road on the map), a north-south connection from High Point to I-40 (K and J on the map), and new roadways that would provide direct connections to the Piedmont Triad International Airport from Winston-Salem and I-40 (A, B, D and E on the map). The current status of all projects in the area is shown in the table entitled Consolidated MPO Thoroughfare Plan Improvements in the Heart of the Triad Area. Kernersville Boulevard will facilitate development in the area between Bus-40 and I-40. The

other two projects are designed to serve regional economic development opportunities associated with future employment related development around the airport. Feasibility studies for both of these projects are scheduled to be completed during 2010. Given the current financial funding availability for roadways improvements the construction of these facilities is unlikely in the foreseeable future.

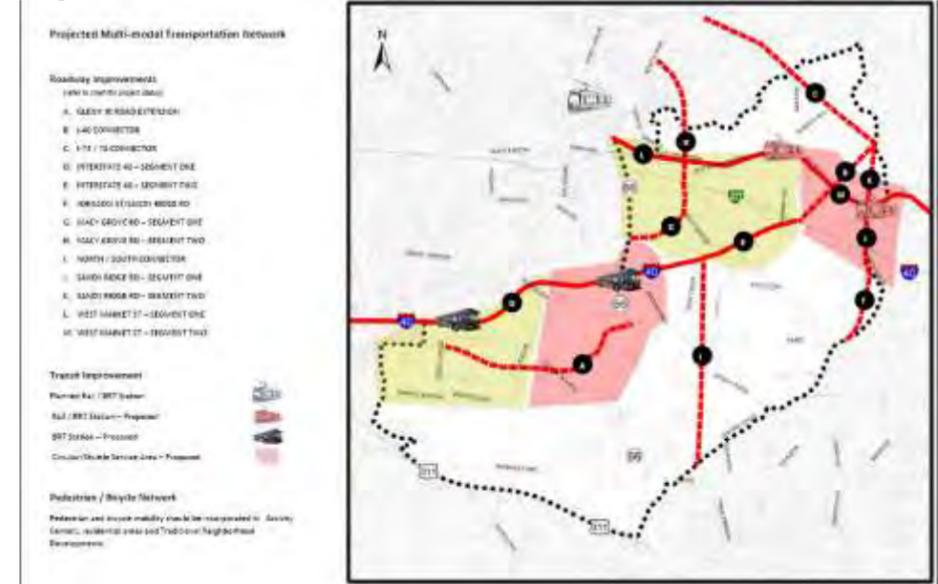
To meet the goals and objectives of this plan, the vision of the transportation network in 20 years is one that supports all forms for mobility. Refer to map entitled Projected Multi-modal Transportation Network. (See Figure 3)

The vision is one where:

- No roadways on a new aligned are needed to support future development;
- Roadways on a new alignment are carefully evaluated for their impact on the area, balanced against their regional economic development benefit;
- Pedestrian and bicycle mobility is supported in Activity Centers, residential areas and Traditional Neighbor Developments;
- Movement connecting communities in the area is possible along bikeways and on transit;
- Connections outside the area are possible via bus and rail transit;
- Regional and local transit connections are a focal point for economic development and the reduction of dependence on automobile travel;

- Congestion management along all roadways is managed through the enhanced transit service and widening existing roadways first and roadways on new alignments as a last resort.

Figure 3



Larger map located at end of the document.



CONCLUSION

The plan detailed in the preceding pages outlines the vision, goals and objectives, proposed land use, transportation needs, opportunities for preserving agricultural and open space uses, proposed development standards, and the economic development opportunities for the Heart of the Triad area.

The Heart of the Triad land area defined in this plan consists of many jurisdictional interests, requiring much cooperation. Land uses are controlled through the jurisdictions of seven local governmental entities. Added to those jurisdictions are portions of three Metropolitan Planning Organizations (MPOs) for transportation planning as well as PART and NCDOT. There are also three different public water and sewer utility systems that would serve and expand utility lines to portions of the area. Parks, open space and greenways accessible to the public would likely involve the efforts of the county and municipal parks and recreation departments as well as the semi-public land trusts such as the Piedmont Land Conservancy along with local property owners. Economic development efforts will need to involve the Piedmont Triad Partnership, their local economic development and recruitment partners, and the Piedmont Triad International Airport Authority.

There is no expressed desire to create an “overlay” governmental authority for the area. Therefore, implementing the plan will present some challenges if the desired outcome is to achieve a coherent land use pattern and a “look and feel” to the area that is fairly consistent in its quality. Clearly, these diverse entities need to develop both a

cooperative and collaborate structure in order to be able to work together to implement the plan.

This concluding chapter proposes a method and a process for doing that, which includes 1) approval of the overall plan, 2) the amendment of local and regional plans to reflect their portion of the overall plan, 3) the amendment of local development regulations to establish a consistent application of development standards in the area, 4) establishing a system of coordination concerning the implementation of parks, greenways, open space and agricultural preservation objectives, 5) establishing a linkage between the proposed land use plan and the economic development and recruitment efforts, 6) developing a cooperative development review protocol among staff from the various jurisdictions, and 7) establishing a procedure whereby plan implementation progress is reviewed on a regular basis by stakeholders and policy leaders.

Approval of the Overall Plan

Upon consideration and refinement of the proposed plan by the Strategic Planning Committee (after public input and input by the Stakeholders Advisory Committee), the Strategic Planning Committee should take action endorsing the plan and recommending it to their respective local government bodies. The local governmental bodies should then refer the plan for review and comment to their own planning boards, after which they should then take an action endorsing the plan and requesting that their planning board proceed to develop the appropriate amendments to existing adopted plans that cover their portion of the Heart of the Triad area. Actions to endorse the plan and refer it to the local planning board for development of the appropriate

plan amendments should then be reported back to PART which has served as the facilitator for the planning process. It is proposed that this step could be completed within three to four months after the Strategic Planning Committee takes its action to endorse the plan.

Amendment of Local and Regional Plans To Reflect Their Portion Of The Overall Plan

If there are existing adopted plans already covering portions of the Heart of the Triad area within a local jurisdiction, the plan or plans may need to be amended to reflect the proposed land use arrangements in the Heart of the Triad plan. The local planning board would need to consider those amendments and make recommendations to the elected body for the jurisdiction so that the amendments can be officially adopted as the land use policy for the area. This step should be completed within six months after the Heart of the Triad Plan is referred to the planning board by their local elected body. Once adopted, these amended plans should be reported back to PART for record-keeping purposes.

Also, any transportation-related recommendations from the Heart of the Triad Plan should be referred to the appropriate MPO for consideration. If these recommendations are different than the currently adopted transportation plans for that area, the MPO should consider them as proposed amendments to those plans. The amendments should be considered in a timely manner and no later than the next scheduled update of the Long Range Transportation Plan (LRTP) and/or the Comprehensive Transportation Plan applicable to the MPO. Since the Heart of the Triad planning area straddles the boundaries of the three MPOs, those organizations should coordinate



with PART to assure that their respective plans and plan amendments are compatible with each other.

Amendment of Local Development Regulations to Establish Consistent Standard

Concurrent with or shortly after the amendment of existing local plans, each local jurisdiction should review existing development regulations applicable to its part of the Heart of the Triad area for consistency with the recommendations for development standards in the plan. If a change is needed in order to assure consistency across jurisdictional lines, those could be handled either as a zoning or development ordinance overlay for that area only, or as an amendment to that jurisdiction's overall development regulations applicable to similar land uses throughout the jurisdiction. As part of the process for developing these development standard amendments, the draft changes should be routed to the planning staff for the other jurisdictions for courtesy information, review and comment prior to their formal consideration. Development regulation amendments at the local level should be completed within six months after the amendment of the local jurisdiction's land use plans. Upon adoption, the amended standards for each jurisdiction should be reported back to PART for record-keeping purposes.

Coordination for Parks, Greenways, Open Space And Agricultural Preservation

Within six months after each local jurisdiction has endorsed the Heart of the Triad Plan, PART in conjunction with the local planning directors, should convene a meeting of the local Recreation and Parks Directors, County Agricultural Extension Service Directors, Land

Conservancy staff and possibly other interests to examine the recommendations and objectives for parks, greenways, open space and agricultural preservation contained in the plan. This group should be asked to identify strategies and initiatives that would be reasonable and appropriate to achieve the objectives in the plan. These initiatives could include a wide range of tools such as dedications of easements or land, agricultural preservation incentives, purchase of land or development rights, philanthropic initiatives, and proposed publically funded capital improvement programs to acquire land and/or make improvements. The strategies and initiatives should be developed for presentation as part of the first annual review of implementation progress for the plan that is described later in this chapter.

Establishing a Linkage Between The Plan And Economic Development Efforts

One objective of this plan is to leverage the area's strategic location in the center of the Triad region between the major urban centers, adjacent to major highways and rail lines, and adjacent to the Piedmont Triad International Airport so that the economic vitality of the region can be enhanced. The economic opportunities that could emerge for this area range from offices to medical support facilities, "just-in-time" manufacturing and logistics, and flex-space. These types of uses could be found in physical environments including more densely developed, pedestrian-oriented mixed use centers, business and corporate business parks, and large footprint manufacturing and distribution complexes. The plan provides for all of these possibilities, and arranges them on the map in advantageous locations near transportation facilities. As such, the plan provides an excellent resource for the economic development organizations of the region to use in marketing future

opportunities. An adopted plan for which all the participating jurisdictions are coordinating their land use decisions, transportation improvements, well-planned nearby residential environments and quality of life enhancements presents a powerful enticement for potential businesses and organizations from outside the region seeking a new location. Such a plan provides maximum predictability as to the places where economic development sites have been pre-designated and have public policy support. The Piedmont Triad Partnership should use this plan as a model for the Aerotropolis initiative as well as its other regional economic marketing efforts. Local economic development organizations such as Winston-Salem Business, Inc., the Greensboro Economic Development Alliance, the High Point Economic Development Corporation and the Kernersville Chamber of Commerce should also use this plan in their recruiting and marketing efforts. A report generally summarizing economic development efforts and challenges in the Heart of the Triad area should be made at the annual review of implementation progress for the plan that is described later in this chapter.

Establishing a Cooperative Development Review Protocol among Jurisdictional Staff

As rezoning and development reviews take place in a particular jurisdiction, it would be helpful if the staff for the adjacent or nearby jurisdictions is informed about applications in process and invited to comment if they wish. There is already some precedent for this with annexation proposals and development reviews that actually straddle jurisdictional boundaries. Providing for courtesy reviews keeps all the local partner jurisdictions informed concerning the type and pace of development being proposed, and gives a checkpoint for all to be



aware of any issues concerning conformance with the plan. Such a courtesy review can and should be structured into current plan review timeframes so that no delay in the normal review process occurs as a result of this procedure.

The local planning directors and PART staff should meet and develop a courtesy review protocol for implementation within three months after endorsement of the Heart of the Triad Plan by each local elected body.

Establishing a Procedure to Review Plan Implementation Progress On A Regular Basis

For a plan to be successfully coordinated by a number of different jurisdictions and organizations, it is important to set up a process that encourages the sharing of information, communication, and

accountability. This review process needs to involve staff frequently involved in implementation, stakeholders and other organizations involved in implementation, and local elected officials.

The recommendation of this plan is that the local planning directors and PART staff meet quarterly to informally review activities that have taken place or are planned to take place to implement the plan. Once every six months, this review should also include the Piedmont Triad Partnership, the local transportation directors, and as necessary the public water and sewer utility providers. Once per year, a written report summarizing implementation activities, development activities, and coordination efforts should be prepared by the planning directors and PART staff, and reviewed by the Stakeholders Advisory Committee prior to its review by the Strategic Planning Committee. Once the Strategic Planning Committee accepts the annual review

report, copies of it should be furnished to each of the planning boards and elected bodies for the jurisdictions. Each county should appoint citizens to the Stakeholder Committee and each elected body should appoint one of their members to the Strategic Planning Committee.

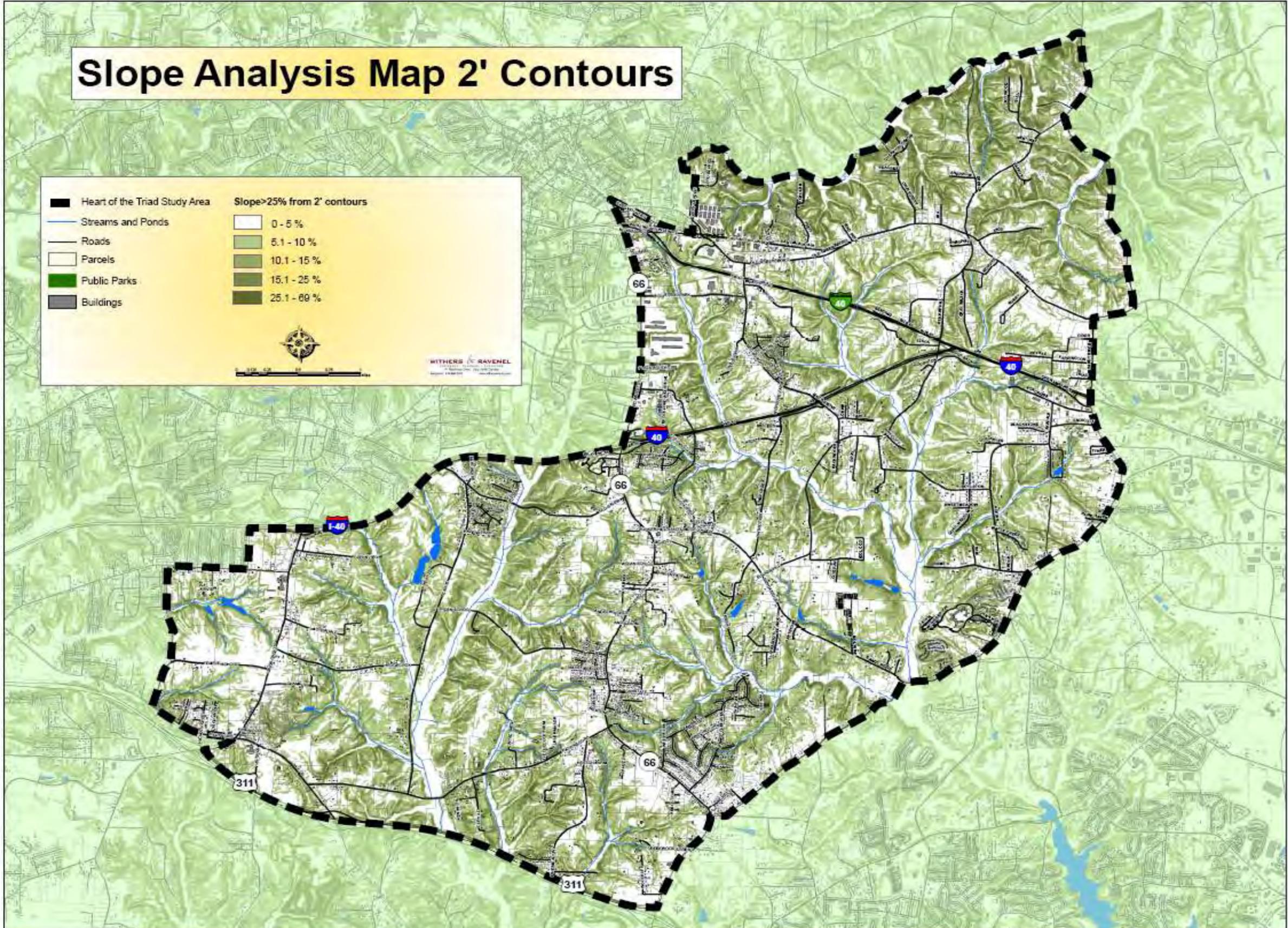
It is hoped that through all these efforts, this central and strategically important part of the Piedmont Triad region will be enhanced while maintaining its natural beauty and unique features. Successful implementation of the plan should add greatly to the economic vitality of the region and complement the critically important efforts to further build up the urban centers of the Triad. Just as importantly, implementing a plan that results in a consistently high quality environment of built and natural spaces will demonstrate the cooperative relationship of all the Triad's local and regional partners.

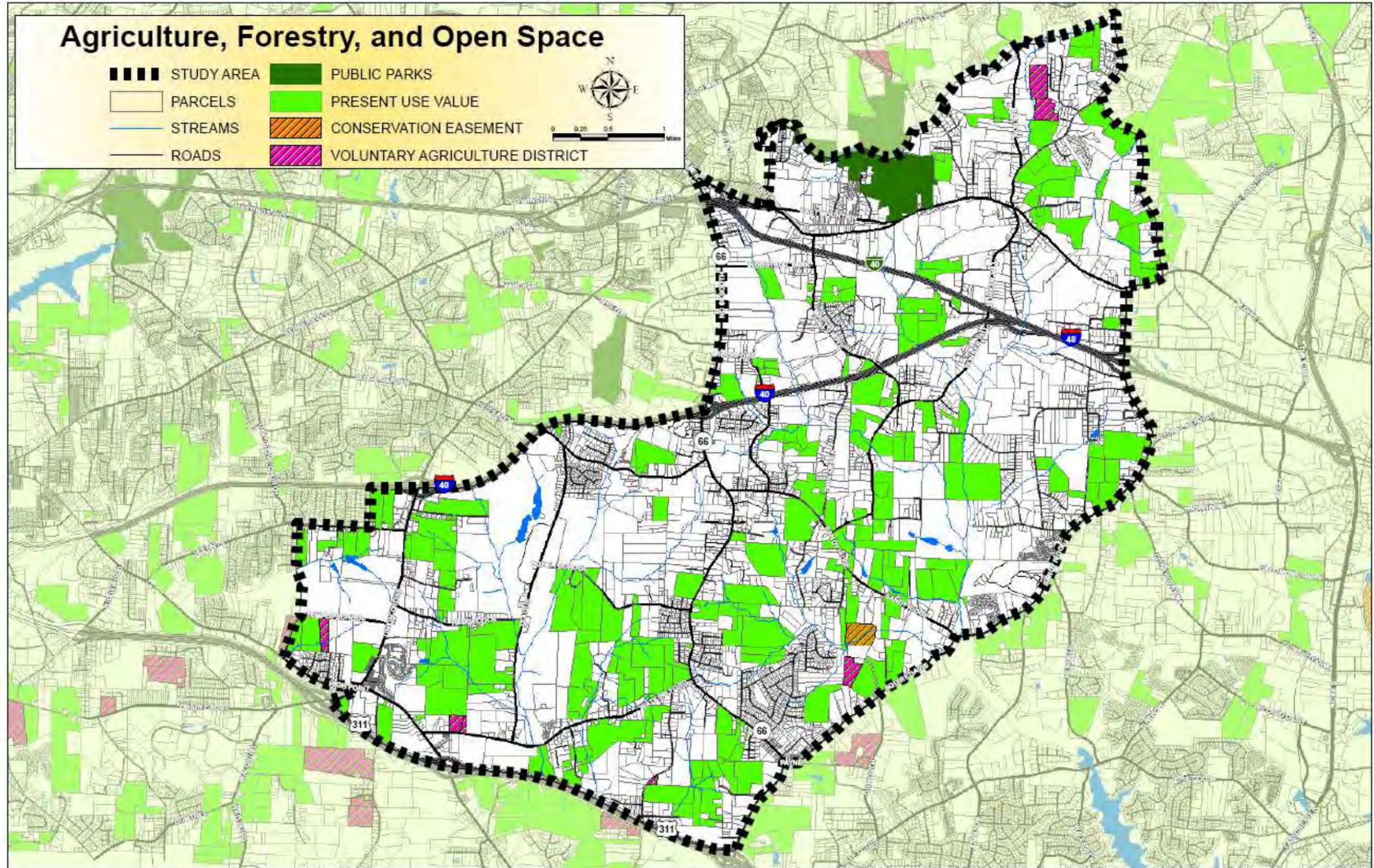


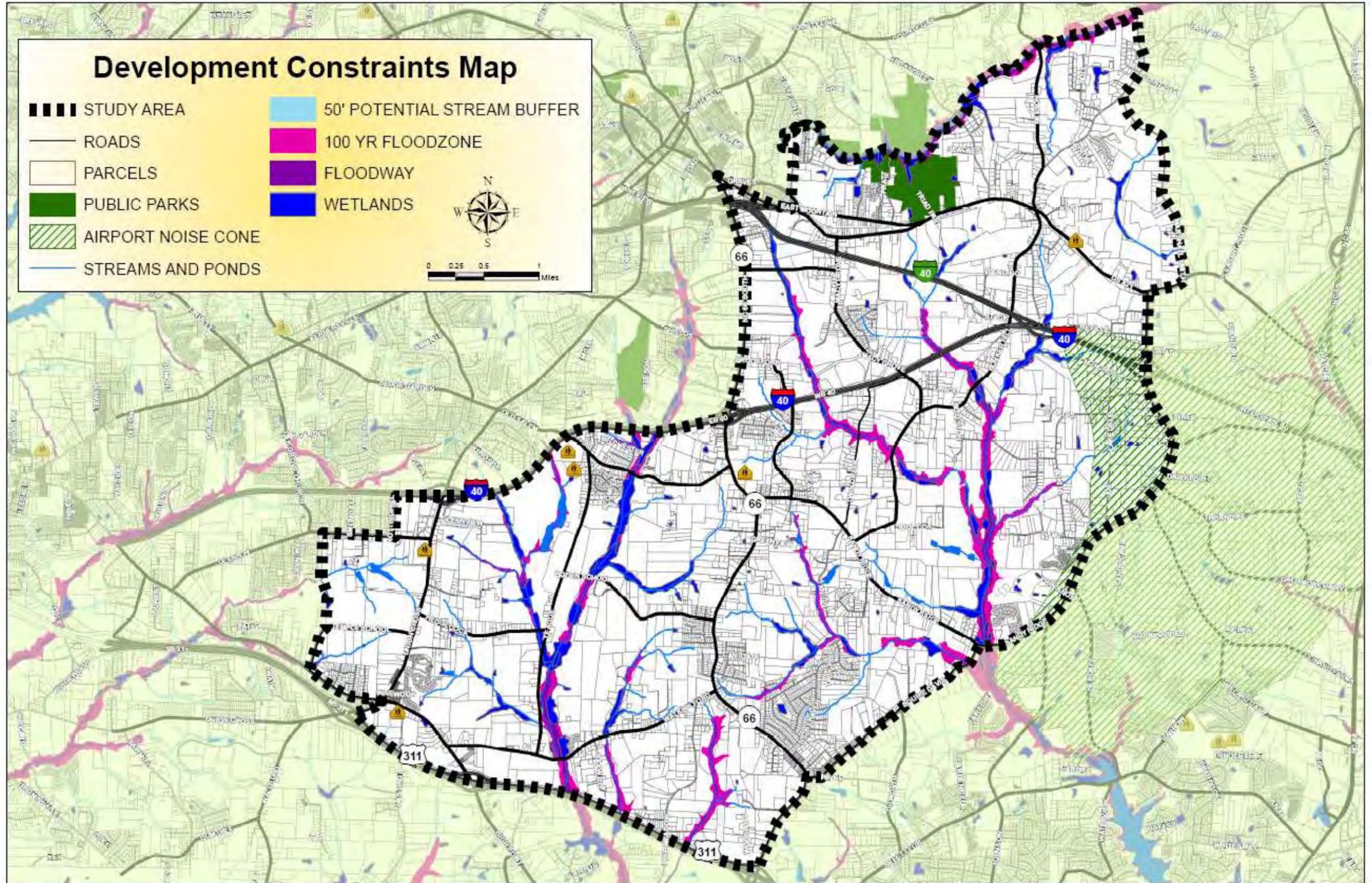
Slope Analysis Map 2' Contours

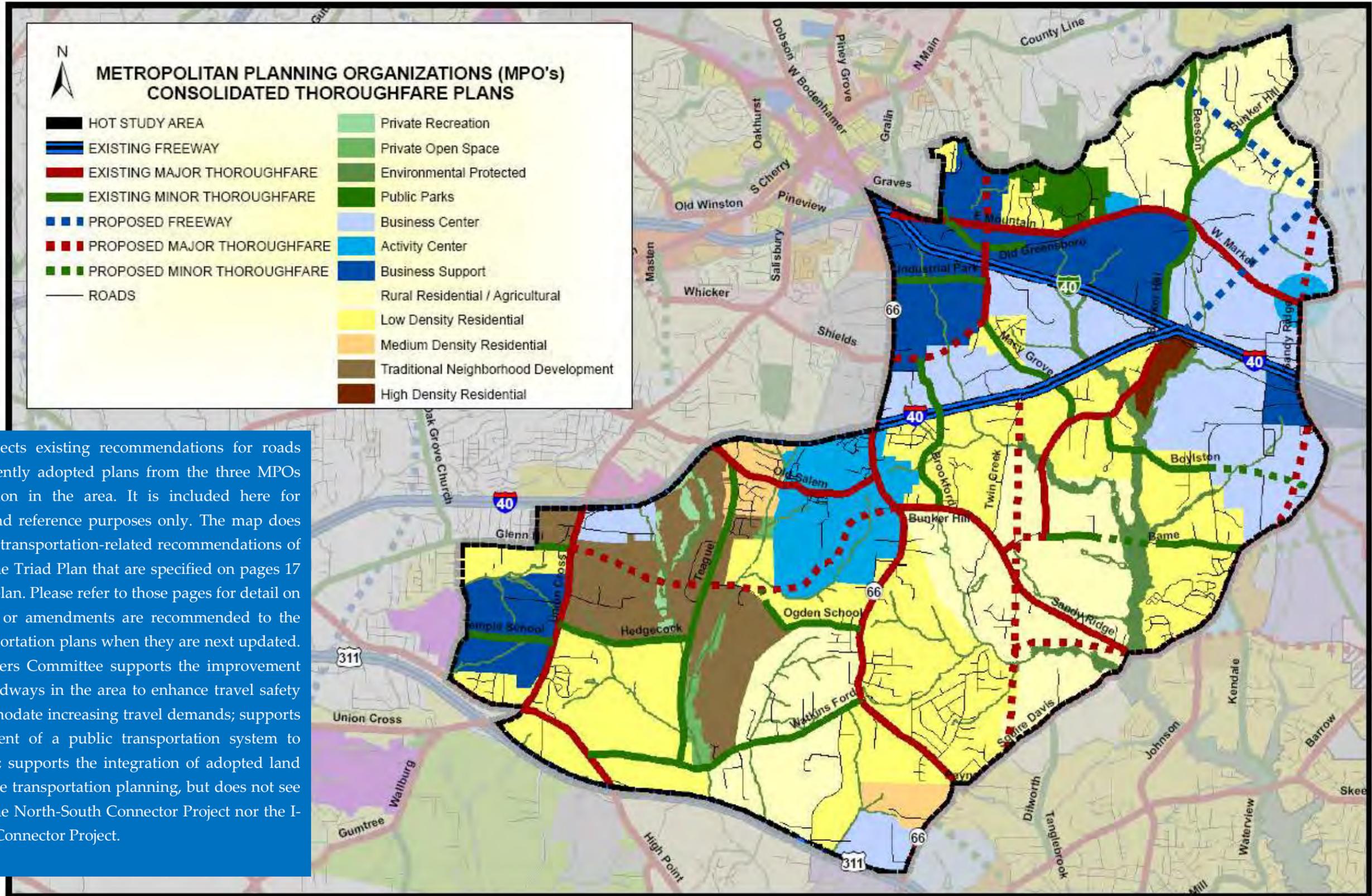
Heart of the Triad Study Area	Slope > 25% from 2' contours
Streams and Ponds	0 - 5 %
Roads	5.1 - 10 %
Parcels	10.1 - 15 %
Public Parks	15.1 - 25 %
Buildings	25.1 - 89 %

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This map reflects existing recommendations for roads from the currently adopted plans from the three MPOs with jurisdiction in the area. It is included here for information and reference purposes only. The map does not reflect the transportation-related recommendations of the Heart of the Triad Plan that are specified on pages 17 and 19 of the plan. Please refer to those pages for detail on what changes or amendments are recommended to the existing transportation plans when they are next updated. The Stakeholders Committee supports the improvement of existing roadways in the area to enhance travel safety and to accommodate increasing travel demands; supports the development of a public transportation system to serve the area; supports the integration of adopted land uses into future transportation planning, but does not see the need for the North-South Connector Project nor the I-73/74 Airport Connector Project.



Projected Multi-modal Transportation Network

Roadway Improvements

(refer to chart for project status)

- A. GLENN HI ROAD EXTENSION
- B. I-40 CONNECTOR
- C. I-73 / 74 CONNECTOR
- D. INTERSTATE 40 – SEGMENT ONE
- E. INTERSTATE 40 – SEGMENT TWO
- F. JOHNSON ST/SANDY RIDGE RD
- G. MACY GROVE RD – SEGMENT ONE
- H. MACY GROVE RD – SEGMENT TWO
- I. NORTH / SOUTH CONNECTOR
- J. SANDY RIDGE RD – SEGMENT ONE
- K. SANDY RIDGE RD – SEGMENT TWO
- L. WEST MARKET ST – SEGMENT ONE
- M. WEST MARKET ST – SEGMENT TWO

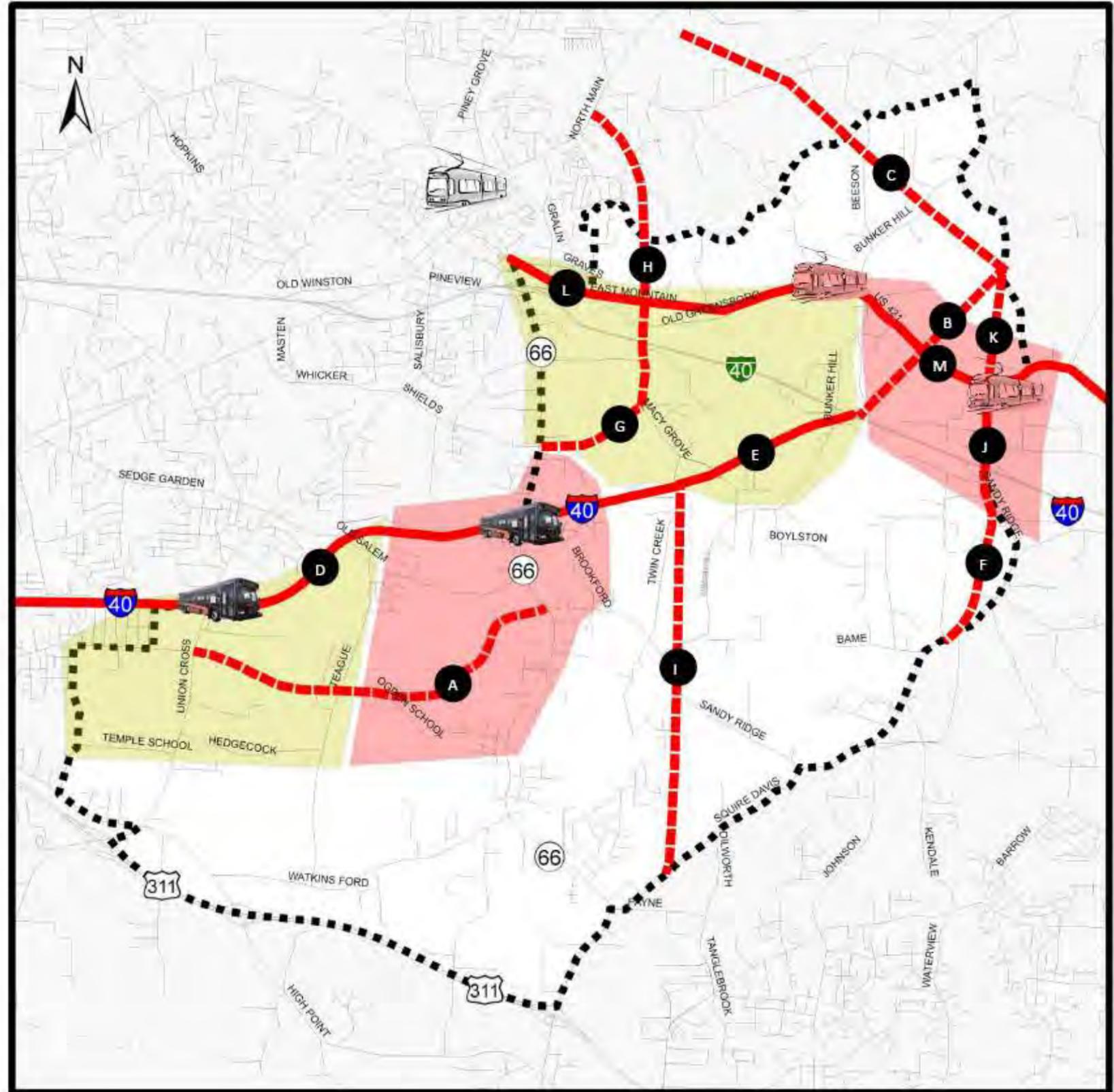
Transit Improvement

- Planned Rail / BRT Station
- Rail / BRT Station – Proposed
- BRT Station – Proposed
- Circular/Shuttle Service Area – Proposed



Pedestrian / Bicycle Network

Pedestrian and bicycle mobility should be incorporated in Activity Centers, residential areas and Traditional Neighborhood Developments





Population and Employment Projections within the Heart of the Triad Study Area

CURRENT ESTIMATES

The current population and employment stated in the plan was taken from 2002 projections in “Socio-Economic Data Forecasting for the Triad Region” dated March 2008. The study area closely matches Traffic Analysis Zones (TAZ’s) as shown in figure A. TAZ’s are small areas used for demographic and traffic forecasting. Totals for each TAZ within the study area were simply totaled to give a figure for 2002 population and employment. The 2002 projected figures are based upon 2000 census data. Granted eight years of growth has taken place, however, this figure does provide a baseline for comparisons.

PROJECTION CALCULATION

Population and employment projections for the study area were generated through two different methodologies.

Population projections were generated by multiplying the residential densities described in the land use classifications and the proposed acreages for each residential land use classification. The socio-economic data for the TAZ’s analyzed as part of the employment projection also contained population data for these primarily non-residential land use classifications. The population within these classifications were projected and added to the total population projection.

Employment projections were generated by mimicking development densities found in the vicinity. Existing development along NC 68 from I-40 south to W. Wendover Avenue is similar to the Business Support, Business Center and Activity Center land use classifications, as shown in Figure B. Employment per acre was calculated based upon 2035 projections for the TAZ’s. Then given the expectations detailed on the Heart of the Triad Plan for a more dense, efficient development pattern, the per acre calculation were increased by 25%. These per acre calculation were then applied to the acreage of each land use classification proposed in the study area.

Figure A
Traffic Analysis Zones within the Heart of the Triad Area

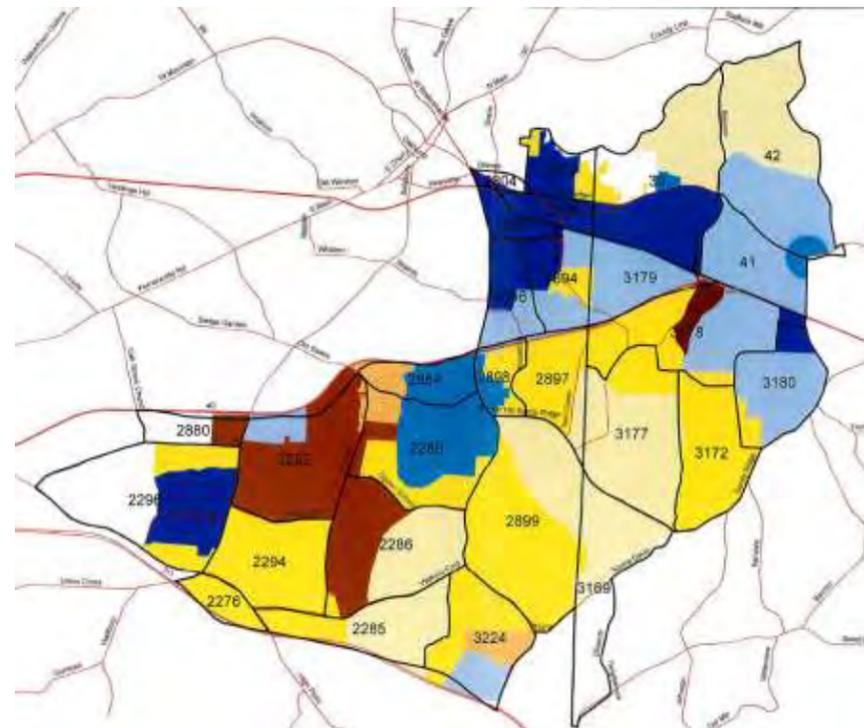


Figure B
Traffic Analysis Zones in the NC 68 corridor that are representative of land use patterns proposed by the plan

Business Support	Business Center	Activity Center
786 161 50	3181 3174 3182	3183





Project Staff

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