

Chapter 19: Transportation

Goal

Provide a safe and functional transportation system which implements the land use plan and promotes access and mobility for people and goods through a variety of transportation modes.

The Significance to Carroll County

The transportation network in and around Carroll County provides access for people and products to small local markets as well as large metropolitan areas. The Carroll transportation system contains roadways, railways, and airways. This system enables citizens to work at the nearby employment centers of Baltimore and Washington while still residing in an area seen as offering a high quality of life. The increasing pressures being brought to bear on Carroll's transportation network by the commuting public indicate, however, that the transportation system needs attention.

Although railroads have played a large part in the development of Carroll County's small towns, the automobile has had and will continue to have a major impact on the county transportation system. In recognition of the influence of the automobile, Carroll County developed and adopted its first major street plan in 1962 – two years prior to the first countywide master plan. The Major Street Plan envisioned an interconnected network of state and local roadways that would provide access and mobility for residents throughout Carroll County and its eight municipalities.

The implementation of the Major Street Plan has been ongoing since it was first adopted in 1962. Considerable sections of the local roadway network have been constructed as part of residential, commercial, and industrial development projects. The difficult roadway connections, however, those having high construction costs or posing significant environmental challenges, have been problematic in their implementation. Therefore, the County policy, which placed the lion's share of the burden for road construction on the development community, has resulted in an interrupted and incomplete road system.

Problems have also been encountered in efforts to implement the State roads portion of the Major Street Plan. Traditionally, it has been County policy to depend completely on the Maryland Department of Transportation (MDOT) for their timely construction of the County's proposed bypasses and other State road improvements. Expansions of State roadway facilities, which are, in many cases, Main Streets in local municipalities, have not been forthcoming. Carroll County and its municipal governments, expecting timely State investments in its roadway network, have allowed residential, commercial, and industrial

development to proceed. The lack of State road construction as envisioned on the Major Street Plan has created near-failing and failing conditions at multiple locations along several state roadway segments in Carroll County.

In addition to the roadway network, Carroll's transportation system also offers other functional and recreational opportunities. The public transportation component offers several park-and-ride lots, a countywide paratransit service, private taxis, and bus companies. The system also includes a network of public and private airports and airfields. A pedestrian facilities network of proposed interconnected trails will provide both recreation and alternative transportation uses. The "Existing Transportation Facilities" map identifies existing transportation facilities in Carroll County, including State highways, rail lines, airports, park-and-ride lots, and the fixed shuttle routes for the County's current transit service provider.

The Carroll County Regional Airport plays a key role in the economic development plan for the Air Business Center business park in Westminster. The availability and location of the airport services offers a great range of opportunities for businesses to transport goods as well as providing convenient access for business travel. The airport is an amenity for this business center that can help to make this area more attractive to prospective businesses who might locate here.

The Challenge to Carroll County

All indications from statewide and regional travel forecasts are that the suburb-to-suburb commute will be the fastest growing travel pattern in the future. Suburban Baltimore and Washington employment centers, such as White Marsh, Owings Mills, Columbia, and Gaithersburg, will continue to grow in their regional influence. Carroll's location relative to these destinations presents special challenges for the local transportation network and its ability to continue to absorb the projected increase in commuters. With the two-mile segment of I-70 in the Mount Airy area making up the entire countywide interstate highway inventory, the major challenge to Carroll County will be to promote safe access and mobility on the existing and proposed roadway network. Four of the County's principal roadways – MD 140, MD 26, MD 32, and MD 30 – are approaching maximum carrying capacity at certain locations, thereby necessitating the bypasses and road widenings identified in the Major Street Plan. DGAs with a proposed bypass on this Major Street Plan include Manchester and Taneytown. The Hampstead Bypass was completed and opened to traffic in August of 2009. In other areas, intersection and spot improvements may be indicated for safety and increased traffic capacity.

With a population of 174,650 (Dec. 2008), major commercial centers, parks, libraries, and a community college, Carroll County has achieved a major portion of the 1964 Master Plan. However, the Major Street Plan implementation has not kept pace with the needs of the population. These planned roadways would reduce reliance on the State highways which are already overcrowded with through-traffic. Federal and State funding for major highway realignments, as envisioned on the Major Street Plan, have been cut. Carroll County,

therefore, is forced to petition the State for funds, often unsuccessfully, as State roadway needs arise.

In most cases, the scenic, rural, and small-town heritage of our municipalities and communities can be maintained and enhanced by carefully considering landscaping, streetscapes, median treatments, signage, access points, and other factors along the respective historic Main Street areas. Westminster and Mount Airy, in particular, have had great success with enhancing historic Main Street, and this success can hopefully be carried over to other communities in Carroll County. The State Highway Administration completed a streetscape project in Manchester and anticipates completion in 2010 of a similar project in Taneytown.

According to the American Community Survey (U.S. Census Bureau), in 2005 nearly 51.7 percent of the county's residents worked outside the county. The average commute time for all workers was 34.1 minutes. This situation is exacerbated by patterns of development in the county where residents of low-density, single-use developments are heavily dependent on the automobile not only for travel to work, but also for shopping, recreation, and other activities.

Carroll County's state roadways continue to show the effects of an increasing number of local citizens commuting elsewhere to work. The Average Daily Traffic (ADT) on MD 140 at the Baltimore-Carroll County line indicated the largest statewide increase in traffic volumes during the 10-year period between 1985 and 1995 (approximately 108 percent). In 1995, the 43,000 vehicles counted per day at the permanent count station on MD 140 east of the Liberty Reservoir Bridge was comparable to traffic volumes observed on I-70 near Frederick and Mount Airy (46,000 ADTs) and I-83 near Hunt Valley (46,000 ADTs).

The Choice: Policies & Recommendations

Policies

- Needed improvements will be a funding priority in the Carroll County CIP, especially for critical roadway segments and intersections.
- New subdivisions will be designed to minimize cul-de-sacs and use-in-common driveways while encouraging an interconnected road pattern.

Recommendations

- A. Calculate the accident rate based on the most recent available "Accident Detail Highway Location Listing," published by Maryland State Highway Administration, and review the high-accident intersections or roads to identify possible improvements needed.
- B. Implement traffic calming measures prior to construction where there is significant potential to slow traffic and improve safety in areas with nearby residences. On major roads, more appropriate solutions such as roundabouts, landscaping, pavement design, and geometric design may be considered.
- C. Develop and adopt a Bicycle and Pedestrian Facilities Master Plan(s) that identify(ies) bicycle and pedestrian facilities and amenities to allow and encourage residents to bike

or walk to their destinations and to serve as a guide for Community Investment Plan (CIP) and new development projects, to reduce traffic congestion, to provide transportation alternatives, and to provide recreational and health benefits.

- D. Investigate a greater role and responsibility for construction of State arterial and collector roads with the CIP funding in partnership with the State.
- E. Investigate a transportation improvement fund to permit needed transportation improvements on a more timely basis. This fund could be from an excise tax on new construction with proper State implementation legislation or an impact fee for roads.
- F. Maintain and/or improve with corridor preservation and other measures the level of service along State arterial roads.
- G. Revise the Zoning Ordinance, Subdivision Regulations, and the standards for highway and street design and construction to implement access control policies, particularly on arterials and collector roads, and a connecting system of internal and external streets, providing for shorter and fewer vehicle trips and better traffic circulation.
- H. Emphasize the importance of the Carroll County Regional Airport when developing transportation system linkages in a countywide comprehensive transportation plan.
- I. Work with the County's delegation to the General Assembly to seek funding for State highway projects and prioritize them with the State Highway Administration.
- J. Revise road standards to allow roads to be more pedestrian friendly. Program sidewalk improvements and connections into the CIP as an annually funded program for sidewalk connections and maintenance, particularly where it will improve safe access to schools. Utilize SHA funding available for this effort.
- K. Support land use recommendations for employment campus and telecommuting centers to reduce the length and number of household trips related to work.
- L. Revise Chapter 103 to promote the creation of neo-traditional communities and mixed-use communities, which typically incorporate non-motorized transportation facilities and the clustering of uses, thereby reducing Average Daily Traffic (ADT) volumes.
- M. Increase park-and-ride lots where needed and appropriate in the county.
- N. Encourage the use of alternative transportation, such as bicycles, transit, and carpools, to improve air quality by reducing the number of vehicles on the road during the week.
- O. Encourage community centers in major subdivisions so that community functions and meetings can be accessible by means other than automobiles.
- P. Increase employment opportunities to reduce commuting outside of the County.
- Q. Improve subdivision and road design to provide bicycle and pedestrian-friendly routes to shopping, schools, and recreation areas.
- R. Evaluate zoning and subdivision regulations to minimize cul-de-sacs, use-in-common drives, and panhandle lots in "R" Residential districts.
- S. Support community comprehensive plan update efforts to evaluate transportation needs at the more localized level.
- T. Prepare and adopt a more comprehensive countywide transportation master plan that considers evaluations of needs and potential projects to meet the community's transportation needs.
- U. Conduct a MD 75/MD 77 truck route study to determine viable options to safely and efficiently move heavy truck traffic in and around Union Bridge, Keymar, and Detour and identify functional improvements to the existing roadway network, for the purpose of system preservation.

Fiscal Impact to the County

The realization of the complete transportation network in Carroll County, including the successful implementation of the Major Street Plan, an interconnected countywide trail system, and new roadway improvement needs recently identified, would be very costly. The Major Street Plan includes a combination of State and County roads which exceeds \$931 million in total construction costs. A countywide trail system, consisting of over 200 miles of trails, could cost nearly \$52 million to implement (based on average cost of \$48 per linear foot supplied by the Carroll County Department of Parks and Recreation) if the County funded the complete proposed trail system. The cost to the residents of the county is expected to be much less because grants and developers of major projects construct much of the needed infrastructure.

Locally, the cost for construction of all County Planned Major Streets and Planned Neighborhood Connections would exceed \$182 million if it was completely County funded. This would equal an average cost of \$9.1 million per year over the planning period 2010 through 2030. The estimated cost for local road construction is based on an estimated \$11 per square foot of roadway, developed by the Department of Public Works, and a land acquisition estimate of \$133,000 per acre, developed by the Department of Planning, with an additional 10 percent contingency cost assumed. While the local road projects are located throughout Carroll County, the majority of local road construction is located within the Westminster and Freedom growth areas. In Freedom, in particular, it is important to note that the construction of several roadways involves the crossing of sensitive environmental areas. These projects will likely have higher costs due to permitting and construction requirements.

Regarding State road projects, Carroll County has traditionally relied solely on the State of Maryland to fund its State transportation improvements contained on the Major Street Plan. It is apparent that continuing to rely on the State for \$740 million in State transportation improvements is not realistic planning. In the future, the County will be expected to commit local matching funds toward engineering and construction in order for some of these State Highway projects to move forward.

The following tables list the Planned Roadway Projects for State Highway projects, local planned major streets, and neighborhood connections. Cost estimates by project are provided, along with the source or adopted plan in which the project appears or is adopted.

Planned Roadway Projects

| Project | Estimated Cost* | Plan Source |
|---|------------------------|--------------------|
| State Highway Projects | | |
| ✓ MD 26 Improvements (MD 32 to MD 97) | \$59,000,000 | Freedom |
| ✓ MD 26 Corridor Improvements (MD 32 to Liberty Reservoir) | \$35,479,000 | Freedom |
| ✓ MD 27 Widening/Improvements | \$29,040,000 | SHA (HNI) |
| ✓ MD 30 Relocated (Hampstead Bypass) | Under Construction | Hampstead |
| ✓ MD 30 Relocated (Manchester Bypass) | \$108,600,000 | Manchester |
| ✓ MD 32 Reconstruction (MD 26 to Macbeth Way) | \$3,988,000 | Freedom |
| ✓ MD 32 Multi-Lane Reconstruction (MD 26 to Howard Co. line) | \$48,000,000 | Freedom |
| ✓ MD 97N Widening/Improvements | \$82,390,000 | Westminster |
| ✓ MD 97S Widening/Improvements | \$82,720,000 | Westminster |
| ✓ MD 140 Relocated (Taneytown Bypass) | \$69,690,000 | Taneytown |
| ✓ MD 140 Improvements Project (Westminster area) | \$213,584,000 | Westminster |
| ✓ MD 140 Corridor Enhancements (Finksburg area) | \$80,410,000 | Finksburg |
| Planned Major Streets (Local) | | |
| Project | Estimated Cost* | Plan Source |
| ✓ Bennett Cerf Drive Extended | \$16,298,333 | Westminster |
| ✓ Center Street Extended | \$1,399,333 | Mount Airy |
| ✓ Connector Road from Union Bridge Road to Main Street MD 75)** | \$4,896,667 | Union Bridge |
| ✓ George Street Extended | \$3,497,333 | Union Bridge |
| ✓ Georgetown Boulevard Extended | \$17,433,000 | Freedom |
| ✓ Johnsville Road Extended | \$7,694,333 | Freedom |
| ✓ Kate Wagner Road Extended (to MD 97) | \$466,667 | Westminster |
| ✓ Key Crossing Road | \$3,497,333 | Taneytown |
| ✓ Malcolm Drive Extended | \$11,192,667 | Westminster |
| ✓ Market Street Extended | \$1,818,333 | Westminster |
| ✓ Mount Pleasant Boulevard (formerly Ebert Road Extended) | \$4,896,667 | Union Bridge |
| ✓ Old Westminster Pike Extended (to Suffolk Road) | \$1,116,000 | Finksburg |
| ✓ Robert's Mill Road Extended | \$2,448,333 | Taneytown |
| ✓ Rockland Road Extended | \$2,448,333 | Westminster |
| ✓ Springdale Avenue Relocated | \$699,667 | New Windsor |
| ✓ Taneytown Bypass (Antrim Boulevard extended to MD 140) | \$25,014,333 | Taneytown |
| ✓ Worthington Boulevard | \$13,990,333 | Taneytown |

Planned Neighborhood Connections (Local)

| Project | Plan Source |
|--|--------------------|
| ✓ Aileron Court Extended | Westminster |
| ✓ Allendale Lane Extended | Taneytown |
| ✓ Amanda Lane Extended | Finksburg |
| ✓ Arnold Road Realignment/Improvements | Westminster |
| ✓ Arrington Road Realignment | Freedom |
| ✓ Bandy Avenue to Mycroft Street Connection | Freedom |
| ✓ Beck Drive Extended | Mount Airy |
| ✓ Boxwood Drive Extended (MD 88 north to Upper Beckleysville Road) | Hampstead |
| ✓ Boxwood Drive Extended (north to MD 88) | Hampstead |
| ✓ Boxwood Drive Extended (Roberts Field to Trenton Mill Road) | Hampstead |
| ✓ Century Drive Extended | Mount Airy |
| ✓ Commercial Access Road | Taneytown |
| ✓ Conan Doyle Way Extended | Freedom |
| ✓ Connector Road between West Watersville Road & Century Drive | Mount Airy |
| ✓ Crimson Avenue Extended | Taneytown |
| ✓ Crossbow Road Extended | Mount Airy |
| ✓ Crossbridge Drive Extended | Westminster |
| ✓ Dede Road Extended | Finksburg |
| ✓ Deer Park Road Realignment | Finksburg |
| ✓ Dickenson Road Extended (various segments) | Freedom |
| ✓ Diehl Road Relocated | Taneytown |
| ✓ Feeser Road Relocated | Taneytown |
| ✓ Hallie Avenue Extended (west of MD 30) | Manchester |
| ✓ Hallie Avenue Extended (east of MD 30) | Manchester |
| ✓ Industrial Park Internal Circulation Road | Finksburg |
| ✓ Krider's Church Road Realignment | Westminster |
| ✓ Lee Lane Extended | Freedom |
| ✓ Leidy Road Extended | Westminster |
| ✓ Lemmon Road Realignment | Westminster |
| ✓ Locust Street Extended | Manchester |
| ✓ Macbeth Way Extended | Freedom |
| ✓ Mall Ring Road Ramp | Westminster |
| ✓ Meadow Branch Road Realignment | Westminster |
| ✓ Meadow Creek Drive Extended | Westminster |
| ✓ Monroe Avenue Extended (Oklahoma Road to Bennett Road) | Freedom |
| ✓ Niner Road Relocated | Finksburg |
| ✓ Obrecht Road Extended | Freedom |
| ✓ Pleasant Valley Road Realignment | Westminster |

2010 Master Plan: Carroll County Challenges & Choices

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|---|-------------|
| ✓ Prothero Road Extended | Freedom |
| ✓ Ralph Street Extended | Westminster |
| ✓ Ridenour Way Extended (various segments) | Freedom |
| ✓ Ridge Road Relocated | Freedom |
| ✓ Ridgeville Boulevard East Extended | Mount Airy |
| ✓ Sells Mill Road Relocated | Taneytown |
| ✓ Southwestern Avenue Extended (2 segments) | Manchester |
| ✓ Starboard Drive Extended | Taneytown |
| ✓ Strawberry Drive | Finksburg |
| ✓ Stumptown Road Relocated | Taneytown |
| ✓ Swiper Road Extended | Manchester |
| ✓ Wyndtryst Drive Extended (2 segments) | Westminster |

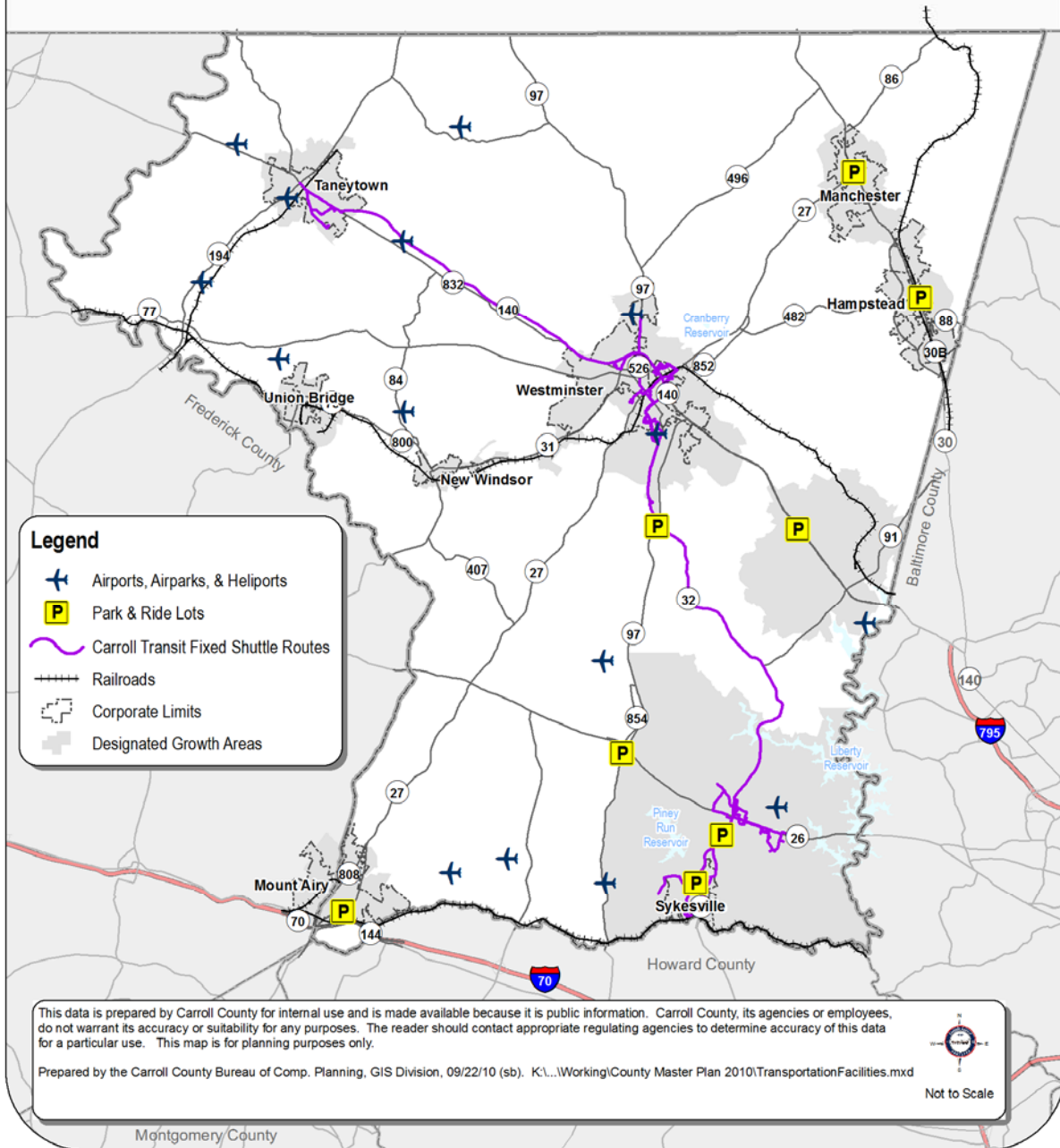
* Cost estimates were derived as follows:

1. State Highway Projects: data were provided by the Maryland State Highway Administration; projects that had cost estimates more than two years old were adjusted up by 10 percent; cost estimates include planning, engineering, right-of-way, and construction costs.
2. Planned Major Streets (Local): cost estimates were calculated using the following assumptions:
 - a. Engineering and construction costs were based on \$4,666,667 per mile for 2-lane roadways and \$8,571,429 per mile for 4-lane roadways
 - b. Right-of-Way costs were based on \$320,166 per acre
 - c. Right-of-Way width was assumed to be 60 feet, except for Georgetown Boulevard Extended (100 feet) and Taneytown Bypass as a local roadway (160 feet)
 - d. Cost estimates are the sum of engineering/construction costs and right-of-way costs
3. Planned Neighborhood Connections (Local): cost estimates were not calculated for these projects given that they will provide limited, if any, increase in transportation network capacity; most of these projects will occur at the time of development and will most likely be the responsibility of the developer

** This project incorporates a small segment of roadway referred to as "MD 77 Extended" in the Union Bridge Comprehensive Plan.

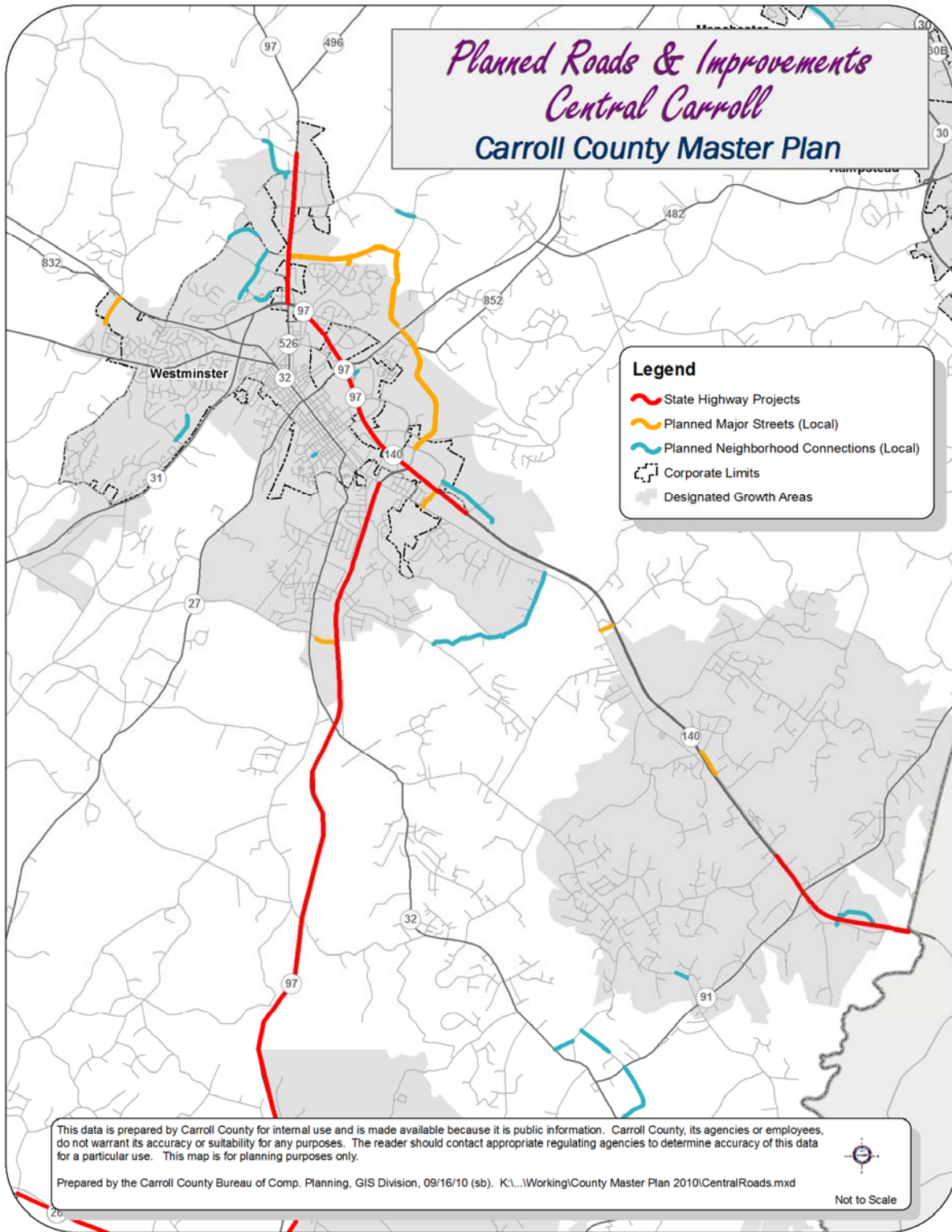
Existing Transportation Facilities

Carroll County Master Plan



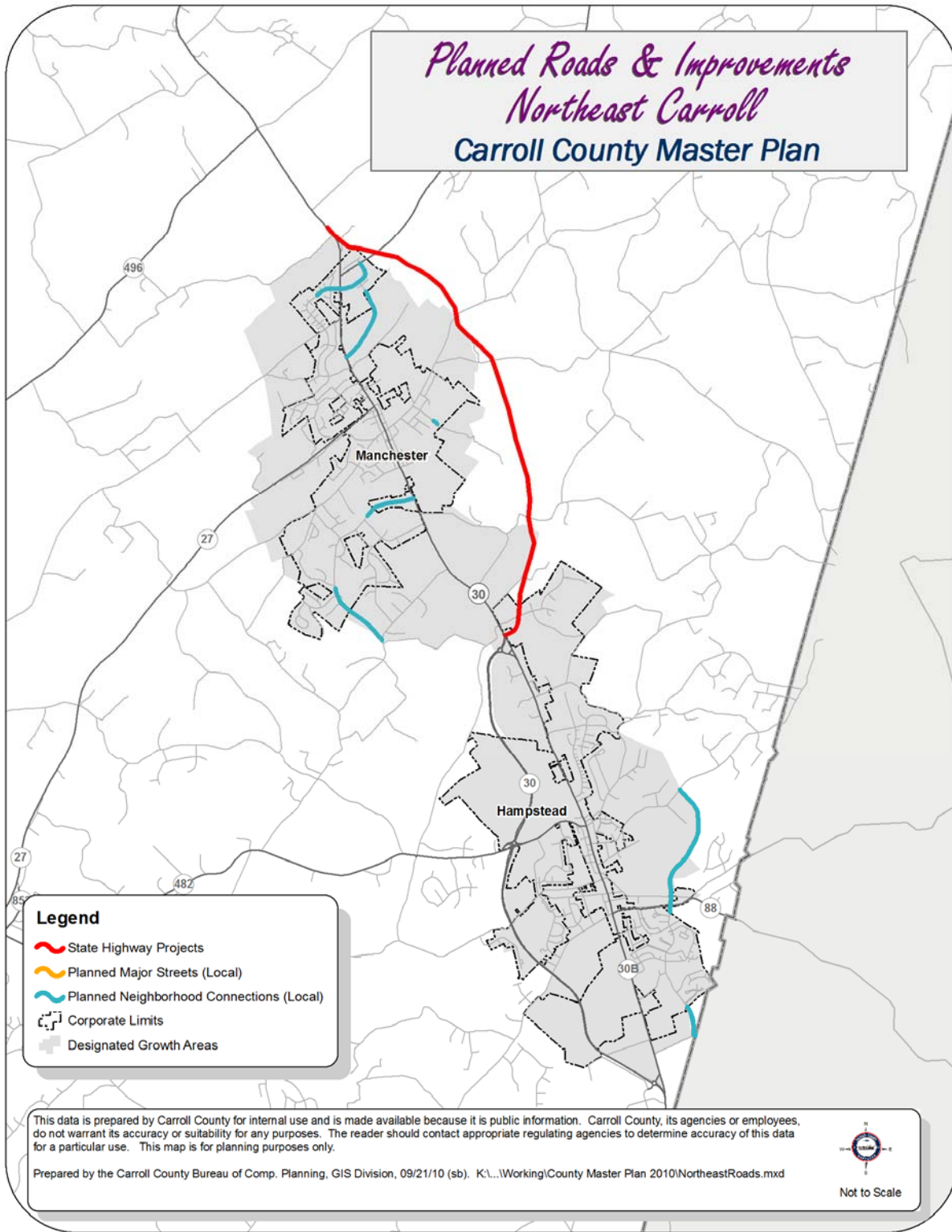
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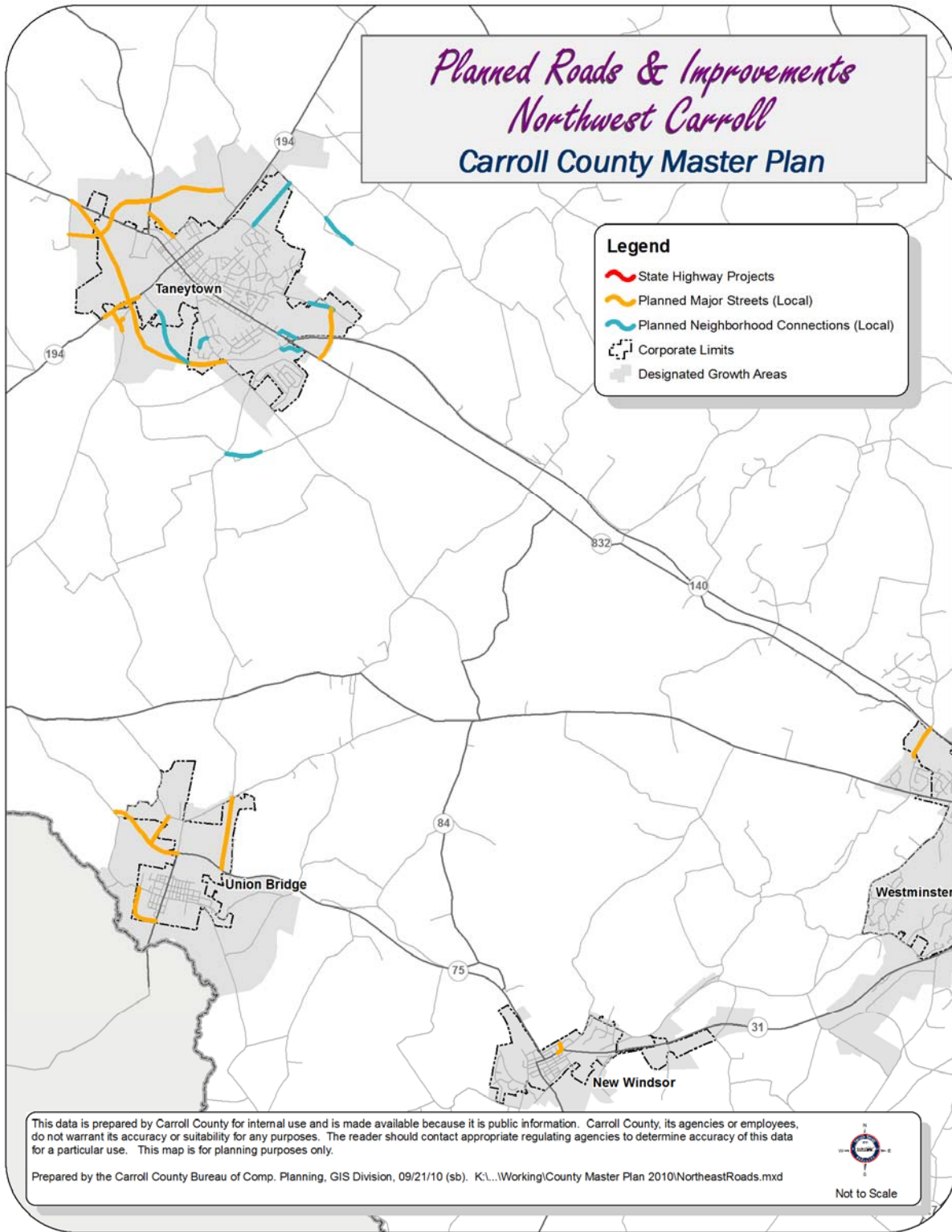
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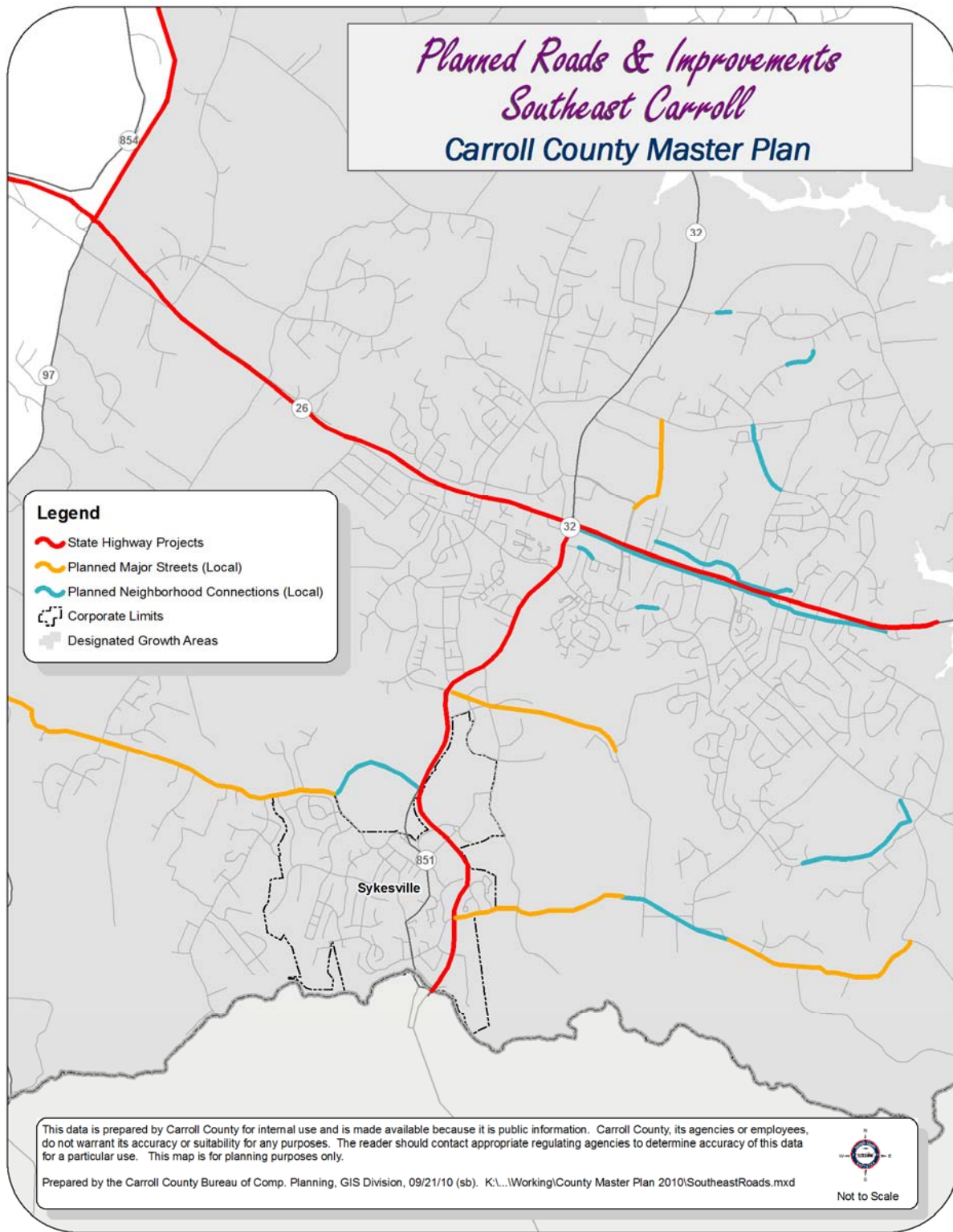
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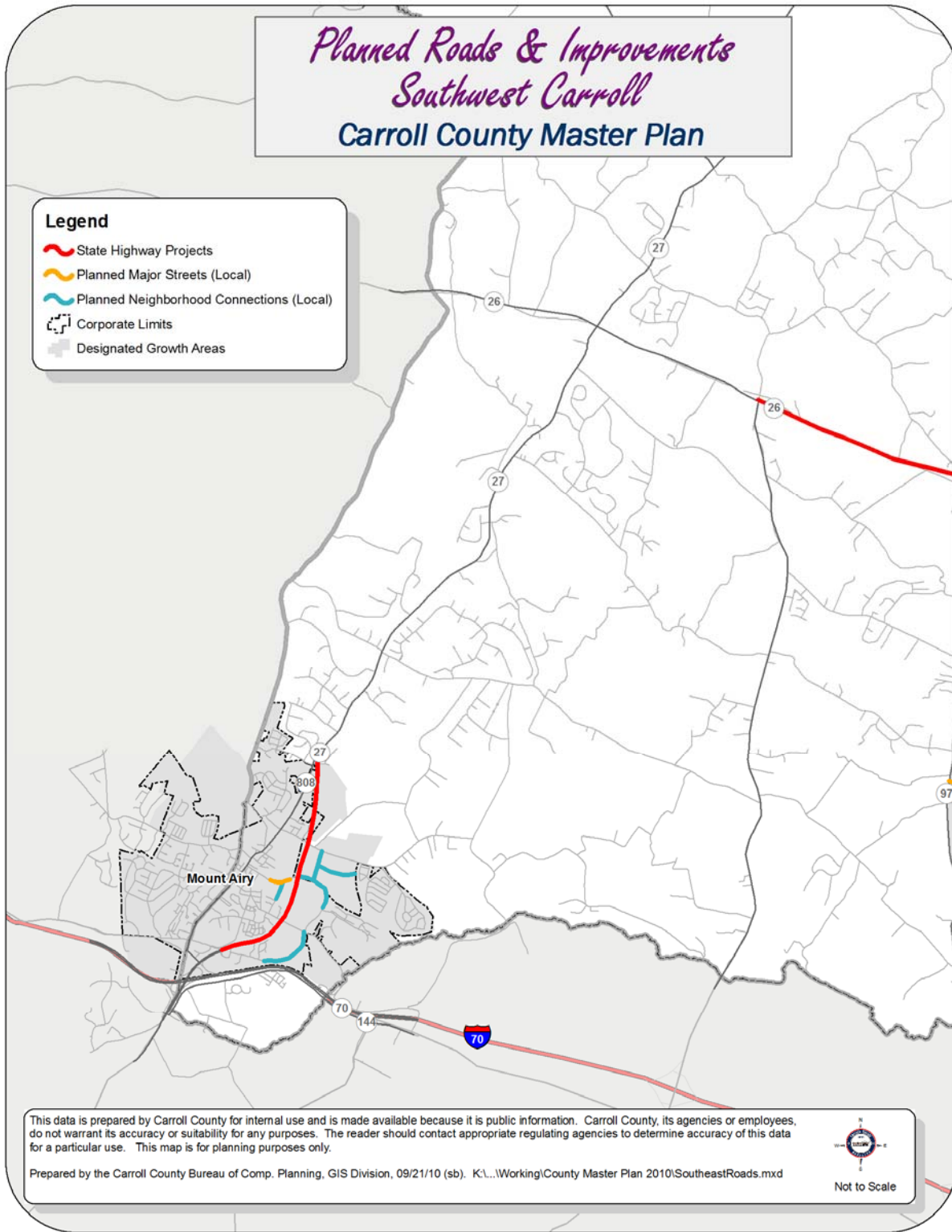
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