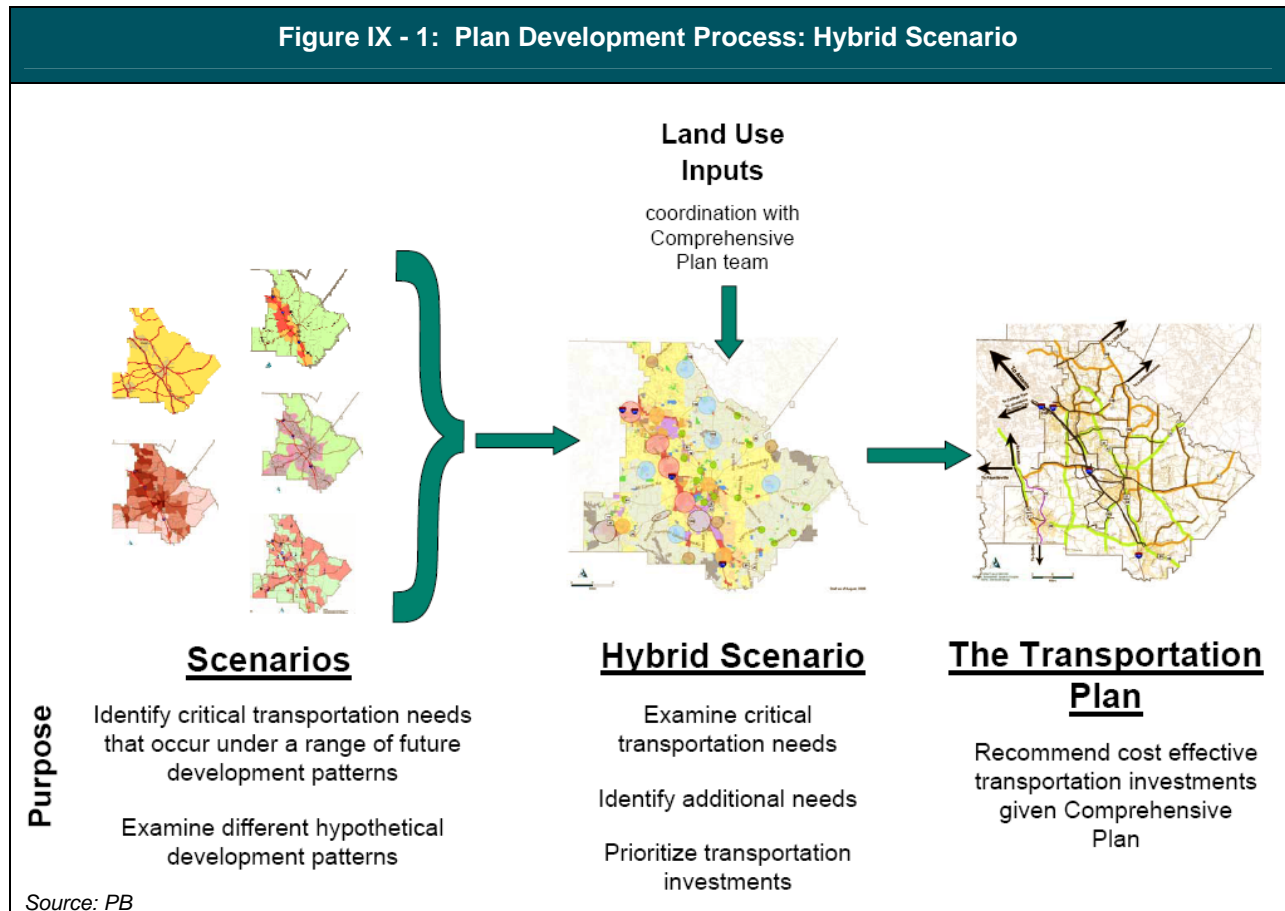


CHAPTER IX: TRANSPORTATION PLAN DEVELOPMENT

Previous chapters have discussed the involvement of the public, planning partners, and other stakeholders in developing a vision for the future of Henry County and its Cities and in identifying transportation needs and issues. The initial steps: engaging the public and stakeholders, developing a future vision and corresponding plan goals and objectives, documenting known needs, and identifying potential future needs, provided a foundation for the creation of the transportation plan itself. Figure IX - 1 shows five potential future scenarios used for needs assessment. This is followed by the Hybrid Scenario, which ultimately leads to the CTP. This chapter focuses on the Hybrid Scenario and the transportation plan development.



Development of the Hybrid Scenario

The planning process for future transportation projects and strategies recognizes the uncertainty of future development in Henry County and its Cities. Because of the range of possible growth patterns between now and 2030, the needs assessment analysis incorporated a variety of potential future development patterns, as discussed previously. In the spring of 2006, county residents, planning partners, and other stakeholders (including the business community and decision makers) identified a preferred future development scenario based upon growth focused in activity centers and existing communities.

The Comprehensive Plan team developed population and employment projections for small areas within Henry County, including several activity centers characterized by a range of population and employment

densities, as well as areas designated for relatively little development. These projections represent the Hybrid Land Use Scenario, a combination of the preferred strategies of the five scenarios tested in the Needs Assessment portion of the planning process. This scenario shows higher density growth focused in activity centers and existing communities with less dense growth outside of these centers. Such a growth pattern increases the effectiveness of alternative transportation modes and minimizes the impacts of development on rural lands.

The Hybrid Land Use Scenario is described in further detail in the Appendix. Figure IX - 2 and Figure IX - 3 highlight population and employment densities in 2005 and those (from the hybrid scenario) projected for 2030. The Comprehensive Transportation Plan assumed household and employment totals that were consistent with the Comprehensive Plan hybrid scenario for Henry County in year 2030.

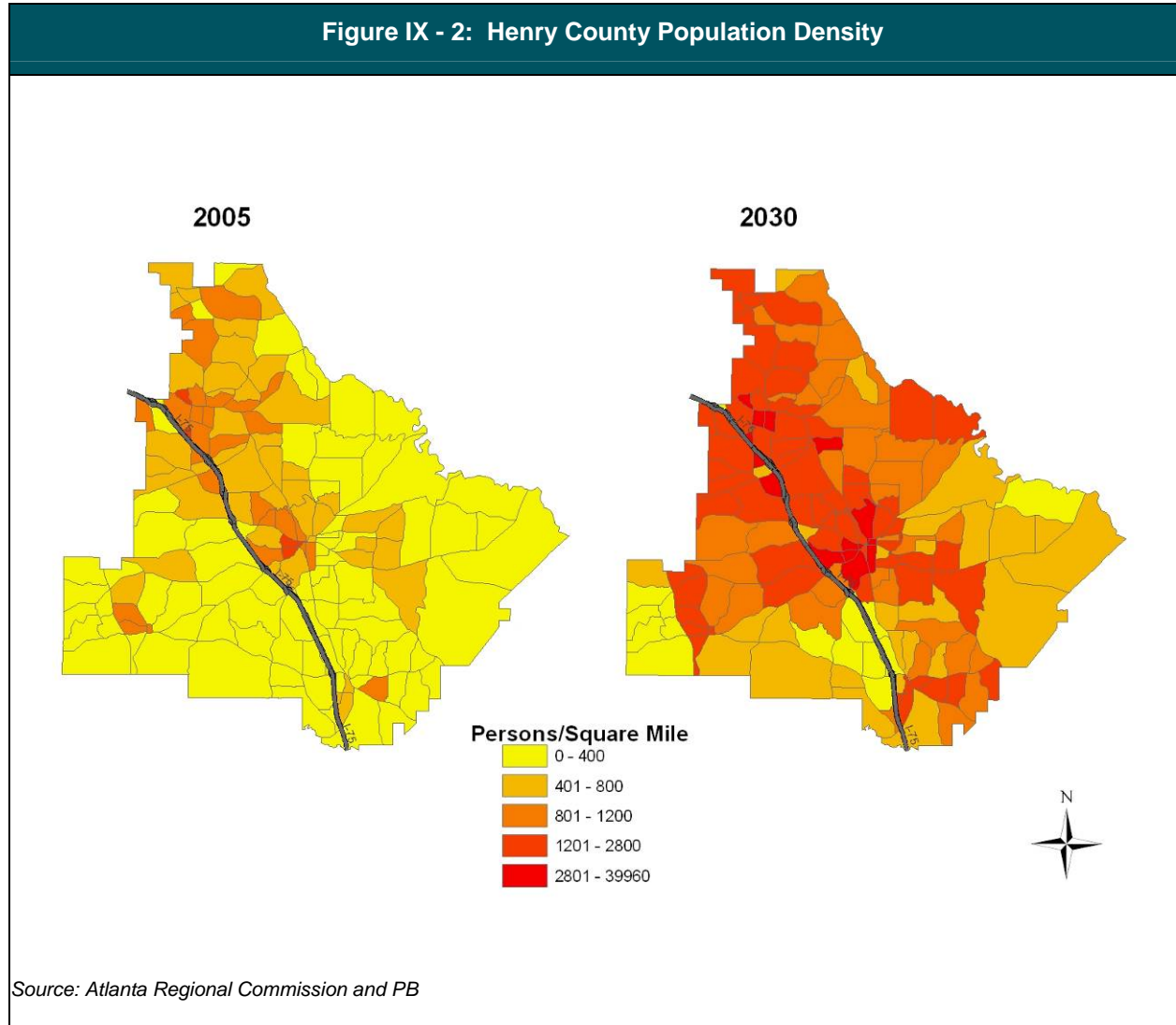
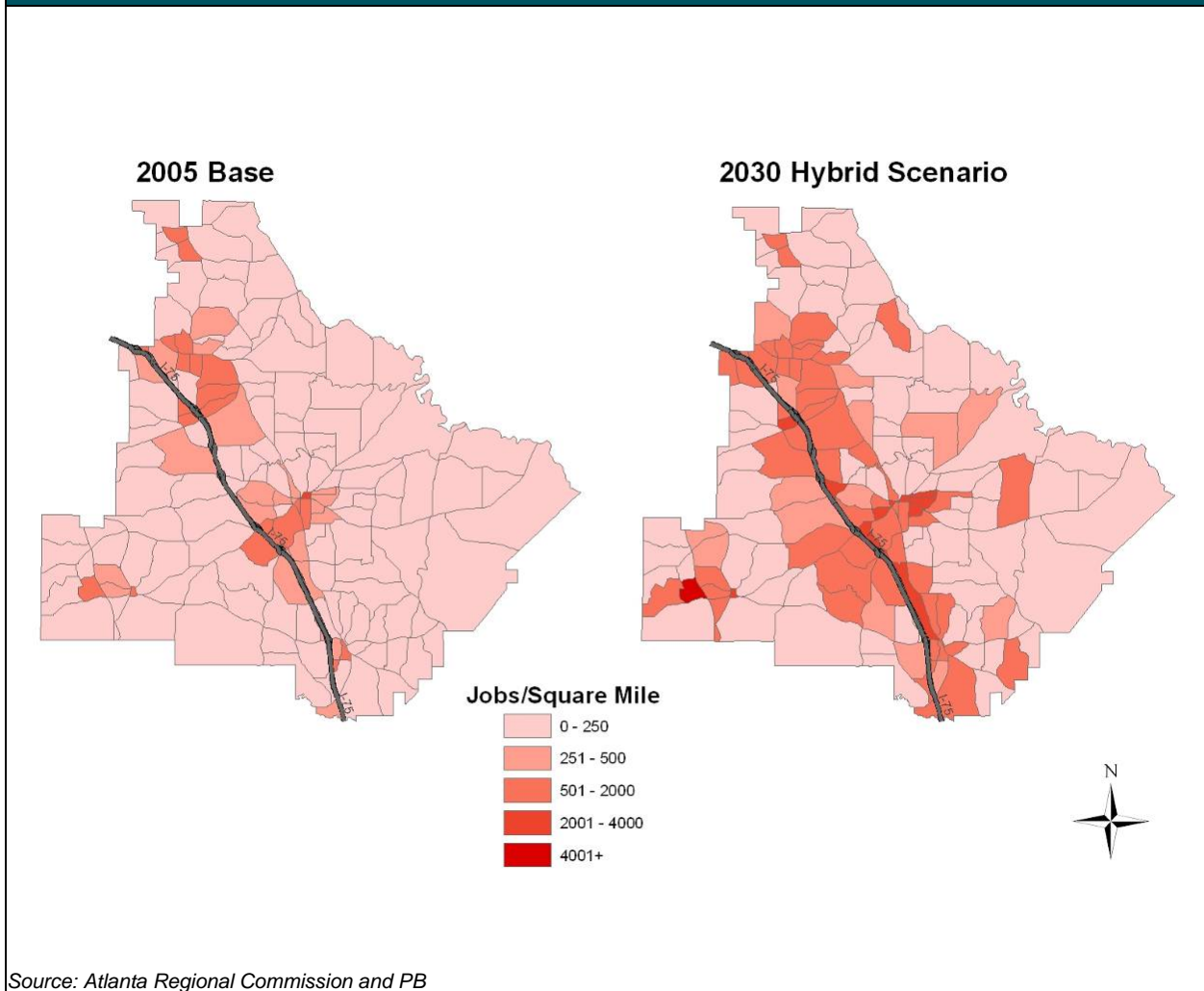


Figure IX - 3: Henry County Employment Density



Plan Development Process

In order to predict future year transportation performance, the CTP Team used the Hybrid Land Use Scenario projections to determine the number of households and jobs. The team employed ARC’s regional travel demand model, which was refined for a more detailed representation of Henry County. This model was used to test the response of the transportation system to variations in roadway networks, transit networks, and land use. For modeling activities, the team assumed a baseline transportation network, which included the existing system as well as improvements that are currently underway or are reasonably committed for near-term implementation.

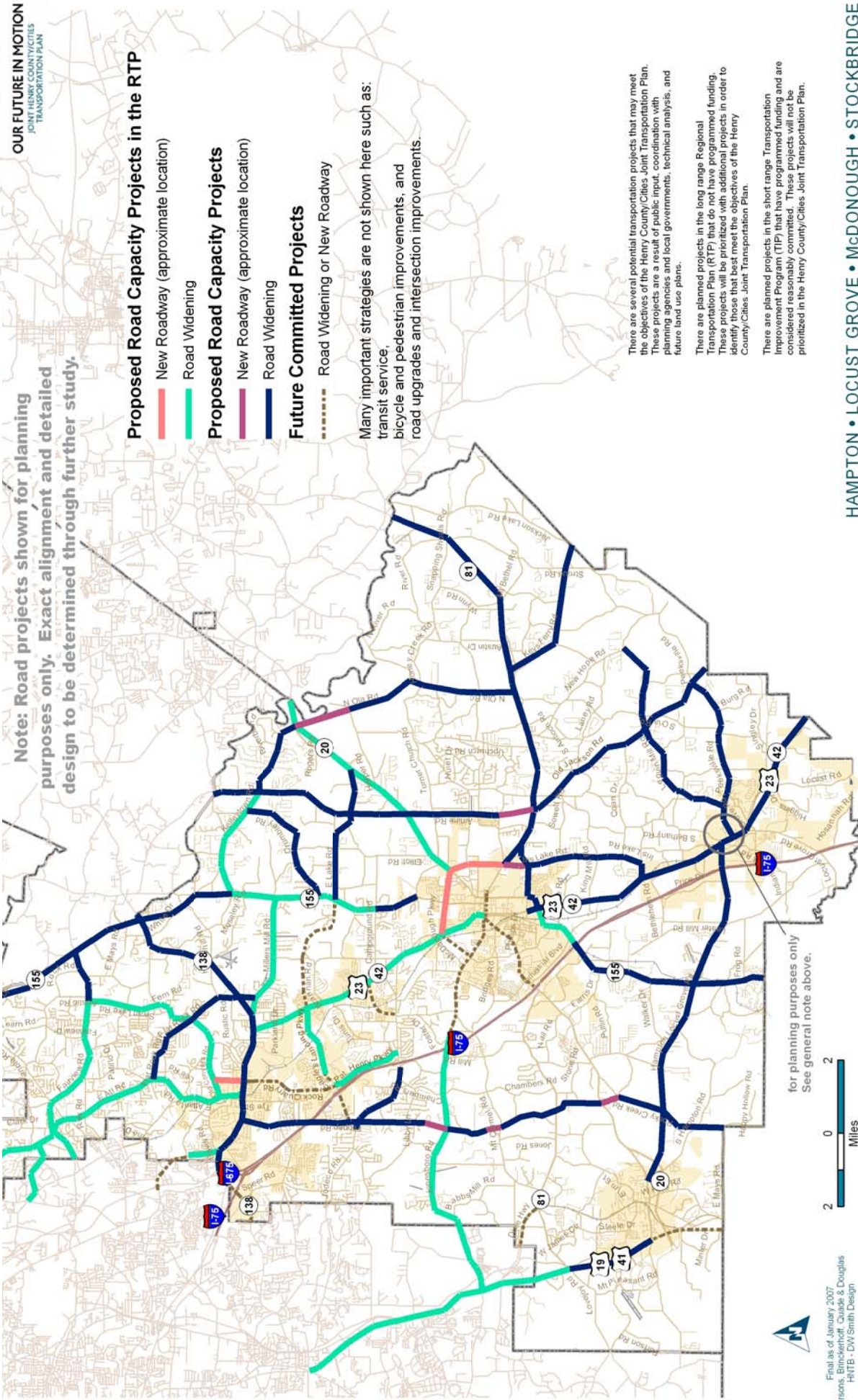
Based upon previous planning efforts and the needs described in Chapter IV, including the Critical Corridors for future mobility in the County, the CTP team identified a set of potential roadway and transit projects. These projects included additional transit service and road capacity improvements, such as widening (by adding additional travel lanes) or extensions of existing roads. These projects were evaluated and prioritized to form a tiered project list for the Comprehensive Transportation Plan, as described below and in the Appendix. Other near term improvements such as road paving, shoulder improvements, and intersection improvements are also an important component of the Plan and are discussed in Chapter XII.

Project Identification

The CTP team identified potential transportation improvements and strategies based upon the needs highlighted through technical analysis and public input as well as previous planning efforts, such as the RTP, city studies and plans, the Comprehensive Plan, and Livable Centers Initiative studies. Through public workshops, individual interviews, briefings, and surveys, stakeholder groups provided ideas and direction for new projects and strategies for the future. In order to ensure coordination with previous planning efforts, the CTP team included projects from ARC's Long-Range Regional Transportation Plan (RTP) and local plans as candidates. Additional projects also emerged from the technical analysis, which was focused on improving critical corridors for future mobility. Figure IX - 4 shows the proposed road widening, road extension, and new roadway projects that were identified. While this chapter focuses on major system improvements, such as widening or extending existing roads, adding new roads, and transit service, Chapter XII highlights more comprehensive strategies.

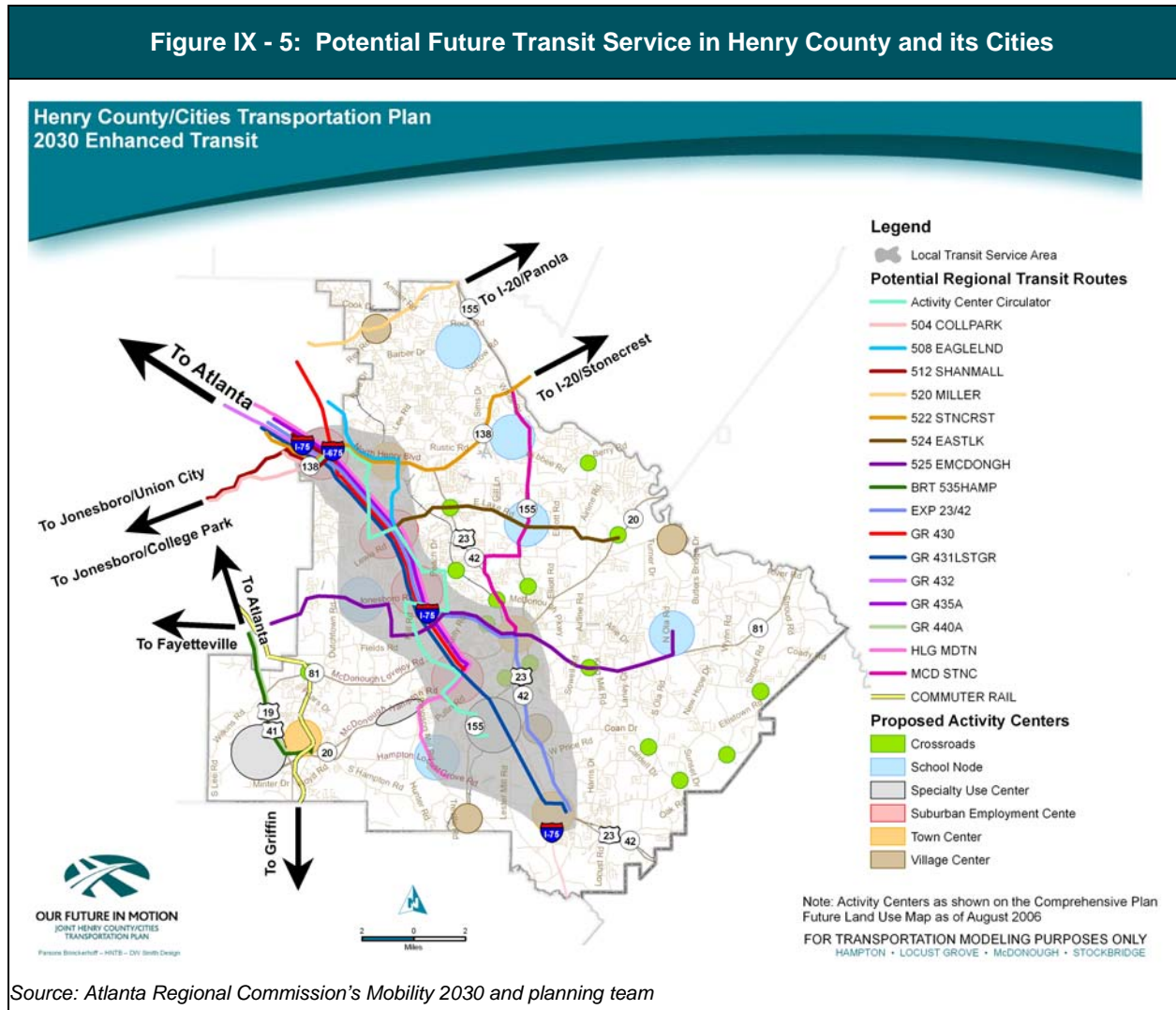


Figure IX – 4: Proposed Road Widening and Road Extension Projects



Development according to the Hybrid Land Use Scenario, which assumes growth focused on centers of activity, is more efficiently served by existing infrastructure than development at a uniform density. Travel between activity centers can also be well served by public transportation, which is most effective in serving nodes or centers of relatively concentrated development. Additionally, people can easily walk or bicycle to destinations within an activity center because of the concentration and mix of uses such as housing, shopping, and jobs. In order to take advantage of the proposed development pattern, the potential transit service identified to complement the Hybrid Land Use Scenario connects activity centers and existing communities as well as provides access to regional destinations. To identify potential long range routes for 2030, the planning team began with future transit routes in the *Mobility 2030* RTP, then added or modified routes to serve projected destinations. While it is likely that the location and nature of future development will impact the preferred routes in the County, the CTP should serve as a guide for additional planning and refinement of proposed transit routes.

Figure IX - 5 shows the potential transit service to both Henry County centers and regional destinations such as the Hartsfield-Jackson Atlanta International Airport and Atlanta’s Midtown business district. The activity center locations shown are those from the Comprehensive Plan Future Land Use Map as of August 2006. It should be noted that refinements to the location and characteristics of these centers are expected as the Future Land Use Plan develops and is updated in the future. Before implementing transit in the future, the planning team recommends additional study of potential transit routes to account for future development and land use changes.



Project Evaluation

The CTP team evaluated potential road and transit projects individually to test their effectiveness in improving general travel conditions in Henry County. Based upon plan objectives, the team used a set of quantitative and qualitative measures to examine how each project impacted congestion, safety, and overall mobility and connectivity for both people and goods. The following section describes this process and the project priorities that resulted for major road and transit projects. Chapter XII includes a full set of recommended strategies and policies for the future transportation system.

Project Prioritization Process

The project prioritization methodology for the Comprehensive Transportation Plan was developed over several months. The methodology was first discussed during the Public Involvement Advisory and Technical Steering Committee meeting in April 2006. The method was finalized after the draft priorities were presented and the CTP team received public and stakeholder input during the October 2006 public workshops. The methodology focuses on the 2030 horizon year, but also includes existing traffic conditions. The prioritization provides a flexible framework for planning and implementing individual projects within the planning horizon.

Specific potential projects are separated into categories for prioritization including:

- Road Widening Projects (Arterials and Collectors)
- Road Extension Projects
- Transit Projects¹

The goal of this process is to produce a project list divided into three groups: high, medium, and lower priority projects. While all of the potential projects are important, assigning priority levels to groups of projects maximizes the County's flexibility to successfully implement projects under a range of possible development scenarios, funding levels, and other important local factors.

The process to define the three priority levels includes both quantitative projections of future travel conditions as well as qualitative scores of how well the project supports the Comprehensive Plan Future Land Use Plan as of Fall 2006.

For roadway projects, the factors affecting prioritization include existing and projected traffic conditions. Two qualitative criteria were also employed in the evaluation of road projects: whether the project improved truck travel (i.e. did the project serve freight destinations or improve a truck route?), and whether the project served a proposed activity center (as shown on the Henry County and Cities Joint Comprehensive Plan Future Land Use map as of late August 2006). Transit projects received scores for projected ridership levels and the number of major activity centers served.

The road widening project prioritization methodology was defined as follows:

- First, the three congestion measures are projected for the roadway under two different scenarios—one with the improvement in place and one without (as in the existing plus committed network).
- The improvement in performance is the change with the project in place *in the 2030 horizon year*.
- The project improvements are sorted for each measure and the most points (3 points) are awarded to the projects with the greatest congestion improvement. (Projects in the middle range are awarded 2 points; those with the least improvement are given 1 point.)

¹ Other transportation strategies are recommended in the plan such as bicycle and pedestrian priority areas, operations improvements, and a local transit service area. However, these strategies will not lead to project-specific priorities, but rather will be used by the County and Cities as the CTP is implemented to guide project development.



- Projects are then overlaid with the Future Land Use Map and the Freight Routes Map. If the project improves a known freight route, it receives 1 point (if not, it receives no points). If the project connects two or more activity centers, the project receives 1 point for supporting the Future Land Use Plan or vision of the County and Cities.
- Finally, the scores for all measures are added. Those projects with the highest scores are considered high priority projects. Those in the mid-range are medium priority and those with the lowest scores are low priority.

Table IX - 1: Sample Road Widening Project Scoring							
Long Range Road Widening Project	Quantitative Measures Ranked in Thirds**				Qualitative		Total Points
	Change in Peak Hour LOS	Change in Typical Weekday Duration of Congestion	Change in Peak Period VHD (% change)	Change in Peak Period VHD	Does it improve a Truck Route?	Does it serve Major Activity Centers?	
US 19/41	2	2	2	1	1	1	9
Iris Lake Rd	3	1	3	1	0	0	8
P. Henry Pkwy	3	2	3	3	0	0	11
SR 155 (from I-75 south)	3	3	3	3	1	0	13

** Points assigned depend upon comparative level of improvement in each performance measure.
VHD: Vehicle Hours of Delay
LOS: Level of Service

Table IX - 1 illustrates the methodology for project prioritization (this information is for illustrative purposes only). In this case, the SR 155 project would receive a higher priority in relation to the other listed projects because widening it improves the performance of the road significantly for each measure. SR 155 also serves truck traffic.

After the projects were scored, they were sorted by total points. The CTP team looked for logical breaks in the scores and assigned each project to a group based upon those break points. In the sample above, SR 155 stands out as a high priority project, while Iris Lake Road is the lowest priority project. While US 19/41 and Iris Lake Road are only one point apart, 9 points was a logical threshold for mid priority projects once all projects were scored. That is, a group of projects received 9 total points and were assigned to the mid priority group, while a separate group of projects received 7 or 8 total points and were assigned to the lower priority group.

Roadway extension projects were ranked in a similar process, but based upon the following measures:

- the overall improvement to connectivity (a quantitative measure of the route’s ability to move through traffic as daily and peak hour volume projections),
- improvement to truck travel (a qualitative score for serving freight destinations),
- a qualitative score if the project serves activity centers (other than freight)

Transit projects were ranked based upon projected future ridership and the number of major activity centers served.



Project Priorities

Draft priorities for potential transportation improvements project were presented to the public and planning partners in October 2006. The CTP team received comments on the priorities in a final round of public workshops, from the plan website comment forms, and during a combined meeting of the Technical Steering Committee and Public Involvement Advisory Committee for the CTP, and the Comprehensive Plan Steering Committee, as well as during a presentation to the Board of County Commissioners in early November 2006. This section presents the recommendations for project priorities based upon the culmination of stakeholder input, technical analysis, and planning team efforts.

Figure IX - 6 shows the proposed major road improvement projects, including widening and extending existing roads, in three tiers: highest, medium and lower priority. Priority road extensions and widening projects for existing arterials and collectors are shown using the same color-coding. Table IX - 2 shows the projects by category. Road improvement projects that are included in the *Mobility 2030* RTP, either entirely or in part, are shown in italics with the applicable RTP project number shown after the project description. The Appendix contains more details regarding the scope of the improvement proposed as well as information on RTP projects, where applicable.



Figure IX - 6: Proposed Road Capacity Improvements

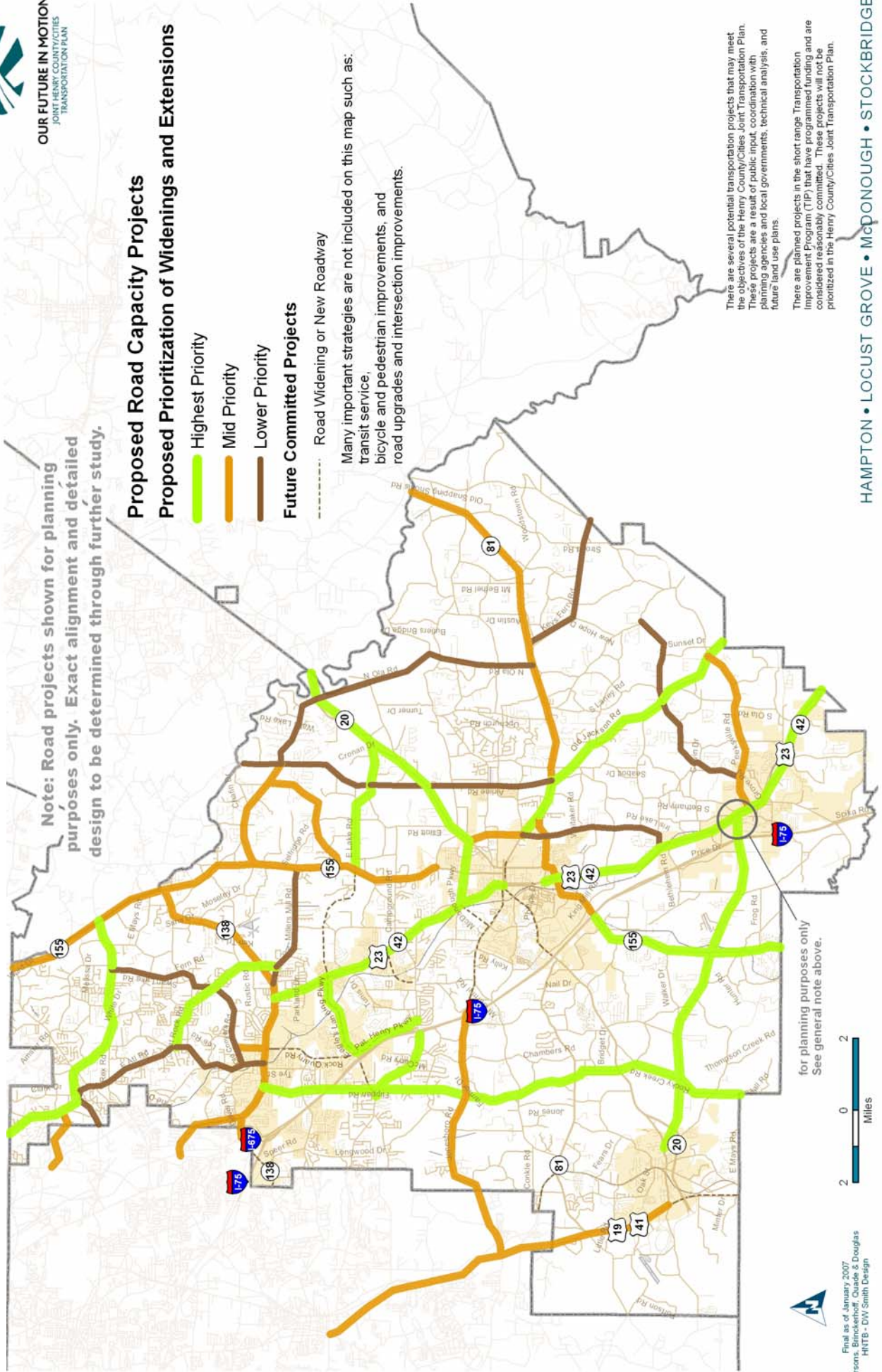


Table IX - 2: Proposed Major Road Improvement Priorities

Proposed Arterial Road Widening

High Priority	Medium Priority	Lower Priority
SR 155 from I-75 to Spalding County Line	US 19/41 from SR 81 to Woolsey Road	Airline Road from Rockdale County Line to existing end
SR 42 from Racetrack Road to Butts County Line	<i>US 19/41 from Flint River Road (in Clayton County) to SR 81 (CL-AR-247)</i>	Iris Lake Road from Racetrack Road to Harris Drive
Hampton-Locust Grove Road/Bill Gardner Pkwy. from SR 20 to SR 155	SR 81 from Old Jackson Rd/Airline Rd to Newton County Line	Jodeco Road from Flippen Road to I-75
Hampton-Locust Grove Road/Bill Gardner Pkwy. from SR 155 to SR 42	Racetrack Road from SR 81 to SR 155 and SR 155 from Racetrack Rd to I-75 ² (HE-113)	North Ola Road from East Lake Road to SR 81
East Lake Road from SR 155 to SR 20	SR 155 from DeKalb County line to Turner Church Rd ⁴ (HE-135)	Kelleytown Rd from Airline Rd to SR 20
Flippen Road/Western Corridor from SR 138 to Spalding County Line ³	SR 138 from I-675 to Rockdale County Line	<i>East Atlanta Road from US 23 to Panola Road (HE-137)</i>
SR 81 from McDonough Pkwy. East to Old Jackson/Airline Road	<i>Jonesboro Road from US 19/41 (in Clayton County) to I-75* (HE-920B)</i>	<i>Miller's Mill Road from US23/SR 138 to SR 155 (HE-140)</i>
Fairview Road from DeKalb County Line to SR 155 ¹ (HE-134)	<i>Kelleytown Road from SR 155 to Airline Road (HE-139)</i>	<i>Old Conyers Road from East Atlanta Road to Flat Rock Road (HE-138)</i>
<i>SR 20 from McDonough Pkwy. (East) to Rockdale County Line (HE-020C)</i>	<i>US 23 from SR 138 to I-675 in Clayton County⁵ (HE-136)</i>	<i>Swan Lake Road from Fairview Road to Flat Rock Road (HE-141)</i>
<i>US 23/SR 42 from SR 138 to Jonesboro Road (HE-107)</i>	<i>Anvil Block Road from Bouldercrest Road in Clayton County to Fairview Road (CL-230C)</i>	<i>West Panola Road from Bailey Drive (in Clayton County) to Flakes Mill Road (HE-163)</i>
<i>Eagles Landing Pkwy. from Eagles Pointe Pkwy. to US 23 (HE-132C)</i>		
<i>Patrick Henry Parkway from Eagles Landing Pkwy (at Rock Quarry Rd) to Jodeco Rd (HE-165B)</i>		

Proposed Collector Road Widening

High Priority	Medium Priority	Lower Priority
Widen Flat Rock Rd from East Atlanta Rd to Miller's Mill Rd.	Widen Crumbley Rd from SR 155 to Kelleytown Rd	Widen Keys Ferry Rd from SR 81 to Butts County Line
Widen Old Jackson Rd from SR 81 to Butts County Line	Widen Peeksville Rd from SR 42 to Old Jackson Rd	Widen Leguin Mill Rd from Peeksville Rd to New Hope Rd



Table IX - 2: Proposed Major Road Improvement Priorities, continued

Proposed Arterial Extensions

High Priority	Mid Priority	Lower Priority
Extend Westside Corridor from Flippen Rd (south end) to Rocky Creek Rd	<i>Extend Rock Quarry Rd from SR 138 to Old Conyers Rd (HE-109)</i>	Extend Airline Rd south from existing end to SR 81
<i>McDonough Pkwy Phase II from US 23 to SR 155 (HE-118B)</i>	<i>McDonough Pkwy Phase IV from SR 20 to SR 81 (HE-118D)</i>	Extend Iris Lake Rd north from existing end to SR 81
<i>McDonough Pkwy Phase III from SR 155 to SR 20 (HE-118C)</i>		Extend N Ola Rd north from existing end to Kelleytown Rd/SR 20

Note:

Current Mobility 2030 RTP projects are shown in italics; RTP project numbers are shown in parentheses after project description for reference.

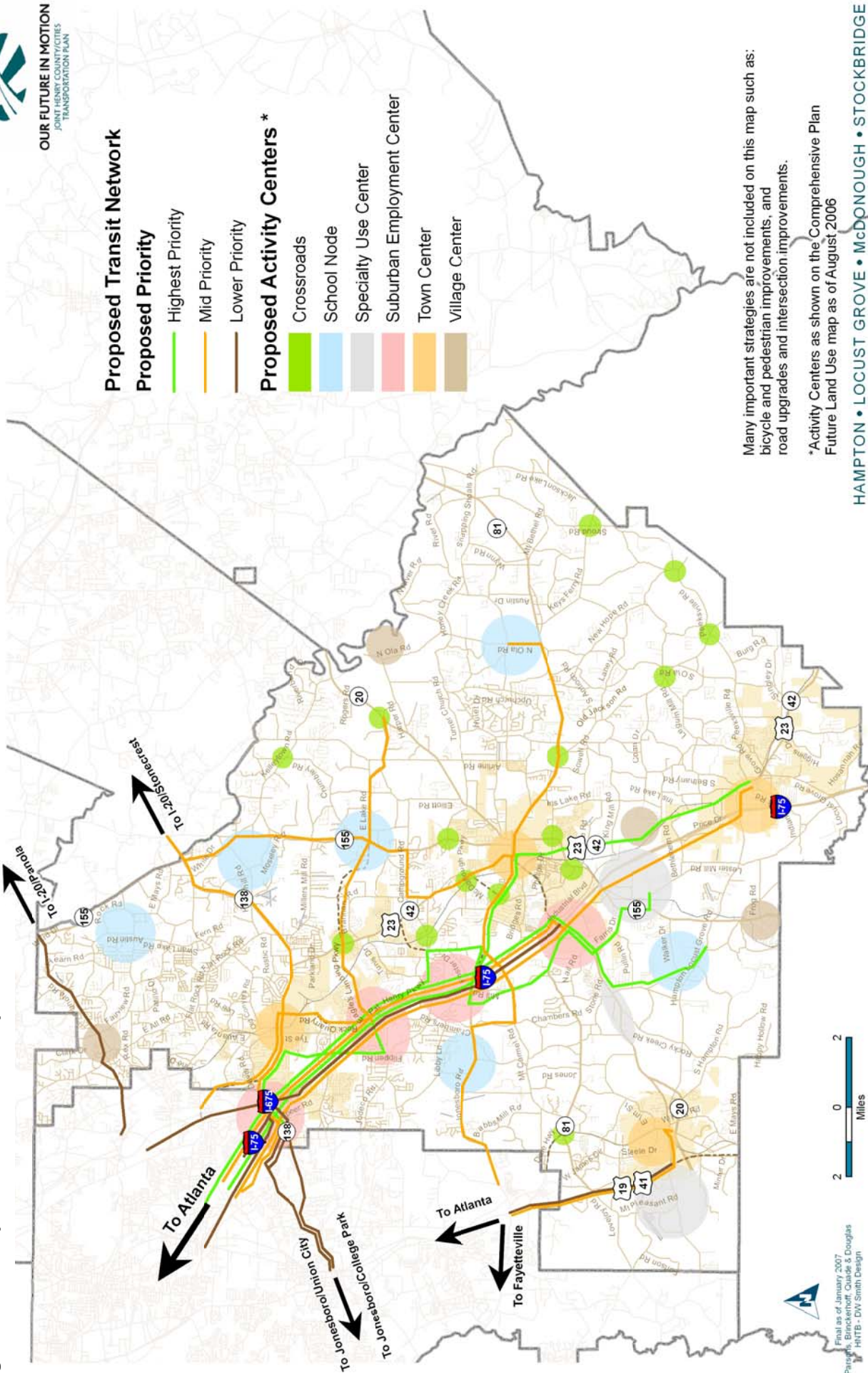
1. Long range RTP project Fairview Rd from DeKalb County line to Swan Lake Road
2. Long range RTP project SR 155 from US23/SR42 to I-75
3. Assumes road extensions to connect corridor from end of Flippen Rd south to Spalding County Line
4. Long range RTP project SR 155 from Kelleytown Road to Campground Rd
5. Long range RTP widening project (HE-136) from 4 to 6 lanes; there is also a future committed widening project (CL-064) from 2 to 4 lanes

* Jonesboro Rd widening project is a borderline high priority projects

Transit priorities are based upon projected ridership given a range of roadway improvements, compatibility with the draft Future Land Use Map as of August 2006, the *Mobility 2030* transit network, and public and stakeholder input. Many issues, including public and stakeholder input, availability of funding, and regional transportation and land use plans may affect the priority of a project as Henry County moves into the future. Figure IX - 7 shows the transit route priorities based upon the County's future land use as of Fall 2006. As the County continues to grow, the CTP team recommends a network of transit to local destinations, connecting residential, recreational, and employment activity centers, particularly to improve mobility and access in and around the I-75 corridor. Regional plans include transit to connect Henry County to destinations in the Metro Atlanta area and the CTP team recommends continued coordination as regional and state plans develop.



Figure IX - 7: Proposed Transit Route Improvements



Many important strategies are not included on this map such as: bicycle and pedestrian improvements, and road upgrades and intersection improvements.

*Activity Centers as shown on the Comprehensive Plan Future Land Use map as of August 2006

