# Recommendations

# Recommendations Summary

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# **Recommendations**

Draft projects were identified based on the Assessment of Current and Future Needs. A comprehensive list of projects was developed and aggragted into short term, midterm and long term tiers and is available in Appendix A. The following sections highlight the short term action plan recommendations. Theses draft projects were evaluated, compared, costed, and prioritized in consultation with the PMT and stakeholders. The total universe of identified projects were prioritized into three unconstrained tiers. The costs of the individual projects were then summed to get costs per tier and total plan level costs.

Revenues were then forecasted using three implementation phases (note: Prioritization Tiers and plan Implementation Phases are related but separate). The first phase, the Short Term Action Plan, includes the years 2016

Table 7: Plan Level Project Costs and Available Funding

|                        | Total Cost      | Available Funding | Shortfall         |
|------------------------|-----------------|-------------------|-------------------|
| Tier I                 | \$473,613,766   | \$206,000,000     | \$(267,613,766)   |
| Tier II                | \$1,078,404,486 | \$382,200,000     | \$(696,204,486)   |
| Tier III               | \$1,756,001,601 | \$578,200,000     | \$(1,177,801,601) |
| JCTP Total             | \$3,308,019,853 | \$1,130,300,000   | \$(2,141,619,853) |
| JCTP Total In Billions | \$3.31 Billion  | \$1.17 Billion    | \$(2.14 Billion)  |

# Methodology

The methodology used for Project Prioritization and Funding Forecasts is described in the next two sections. In addition three model scenarios are described – an I-75 scenario, an Arterials scenario, and a Transit scenario. These model scenarios were used to test assumptions about the function of I-75, the need for greater north-south and east-west connectivity in the county, and potential for transit ridership on different routes and types of transit service.

-2021. The second phase, Mid Range, includes the years 2022-2030. The third phase, Long Range, includes the years 2031-2040. The revenue projections were then used to financially constrain the implementation tiers. Because there is not enough existing funding to implement the entire plan, there is a fourth unfunded "phase" of the plan called Unconstrained.

The estimated total cost for the projects recommended by the JCTP Update is about \$3 billion. The estimated total revenue for the 25 year planning horizon is about \$1 billion, leaving an unfunded gap of about \$2 billion (Table 7).

# **Project Prioritization**

The framework used in prioritizing project recommendations from the JCTP relies on a range of weighted quantitative and qualitative variables that generates prioritization scores for individual projects. This prioritization framework provides the foundation for investment decisions, which was built upon with planning judgement, public feedback, and policy objectives.

#### **Project Categories**

**Intersection Improvements** include signalization, signal retimings, operational improvements, geometry modifications, realignments, roundabouts, turn lanes, and other dedicated intersection improvements.

**Operational Improvements** include corridor medians, turn lanes, lane width modifications, shoulder additions, curb and gutter additions, signal synchronization, and other corridor-level roadways improvements which do not directly add capacity.

**Roadway Capacity Improvements** include widenings, design speed and functional class upgrades, and other capacity improving projects.

**New Roadway Projects** are new roadways or extensions of existing roadways.

**Table 8: Prioritization Scores for Project Variables** 

| Prioritiza-<br>tion Score | 2015 LOS<br>Values | 2040 LOS<br>Values | 2015<br>Population<br>Density<br>Scores | Growth,       | Employment<br>Density<br>Scores | Intersection<br>Crash Vol-<br>ume Scores<br>Crashes | Corridor<br>Crash Vol-<br>ume Scores    | 2015 ADT<br>Prioritiza-<br>tion        | 2040 ADT<br>Prioritiza-<br>tion Scores          | Roadway<br>Typology                   | Environ-<br>mental<br>Complexity | Freight Sig-<br>nificance | Active<br>Transporta-<br>tion | Community<br>Facilities | Public Input |
|---------------------------|--------------------|--------------------|---|---------------|---------------------------------|---|---|--|---|---------------------------------------|----------------------------------|---------------------------|-------------------------------|-------------------------|--------------|
| 1                         | A, B, C, D         | A, B, C, D         | <0.6 Persons<br>per Acre                | <57%          | <0.13 Jobs<br>per Acre          | <1 crash  | <0.001<br>crashes per<br>foot           | <3,000<br>Total Daily<br>Volume        | <6,000<br>2040 Total<br>Daily Volume            | Non-Arterial                          | High                             | Low                       | <5                            | None                    | Opposed      |
| 5                         | E                  | E                  | 0.7 - 1.7<br>Persons per<br>Acre        | 57% -<br>108% | 0.13 – 0.46<br>Jobs per<br>Acre | 2-4 crashes   | 0.001<br>- 0.005<br>crashes per<br>foot | 3,000 –<br>7,000 Total<br>Daily Volume | 6,000 –<br>10,000<br>2040 Total<br>Daily Volume | Arterial                              | Medium                           | Medium                    | 5 - 7                         | Few                     | Neutral      |
| 10                        | F                  | F                  | >1.7 Persons<br>per Acre                | >108%         | >0.46 Jobs<br>per Acre          | >4  | >0.005<br>crashes per<br>foot           | >7,000<br>Total Daily<br>Volume        | >10,000<br>2040 Total<br>Daily Volume           | Arterial and<br>ARC Thor-<br>oughfare | Low                              | High                      | 8 - 10                        | Many                    | Endorsed     |

Active Transportation Projects include new or enhanced sidewalks and Table 9: Relative Weight of Variables Across Project Categories new or enhanced bicycle lanes or other on-street facilities.

Active Transportation - Multi-Use Trails include dedicated, off-roadway trails designed for pedestrian and bicycle use. They are intended for both non-motorized transportation and recreational purposes.

Transit - Prioritization of transit project recommendations is addressed in the dedicated Transit Feasibility Study associated with the Henry County JCTP.

#### Weighted Prioritization Scoring

Proposed projects were assigned scores of 1, 5, or 10 across a range of variables, with 10 indicating the highest priority, and 1 indicating the lowest priority. Scores were assigned for each variable based on cutoffs derived from overall data distribution or established thresholds. Table 8 displays the prioritization score values assigned for different values with the following categories:

2015 Roadway Level of Service (LOS) derived from ARC's Travel Demand Model (TDM). Roadways with worse LOS values were assigned higher prioritization scores. LOS D or better is generally considered acceptable.

2040 Roadway Level of Service derived from ARC's Travel Demand Model (TDM).

2015 Population Density derived from ARC's TDM projections in order to use a consistent data source across multiple analysis variables. Improvements located in denser areas are more likely to influence the transportation network.

Population Percent Growth, 2015 - 2040, based on ARC's 2015 and 2040 population projections. Areas with higher growth percentages are centers of development and should be prioritized for improvement. This metric allows future population centers to be prioritized for transportation enhancements.

2015 Employment Density derived from ARC's TDM. Employment density is a reflection of the concentration of jobs in an area. Infrastructure which serves employment centers should be prioritized in order to facilitate economic growth and serve the greatest number of employees during peak hour travel.

Crashes, 2011-2015, taken from GDOT's crash database. Crashes are effective indicators of safety needs at intersections and along corridors.

2015 Total Daily Volume, derived from ARC's TDM. Total daily volume indicates the level of usage on a given roadway corridor. Roadways with higher total daily volume serve a larger number of individuals every day, making them a greater priority.

**2040 Total Daily Volume**, derived from ARC's travel demand model, as a

|                                |                                 |                            |                                  |  | 0   |                                 |
|--------------------------------|---------------------------------|----------------------------|----------------------------------|--|---|---------------------------------|
| Attribute                      | Roadway<br>Capacity<br>Projects | New<br>Roadway<br>Projects | Operational<br>Improve-<br>ments | Inter-<br>section<br>Improve-<br>ments | Bicycle<br>and Pe-<br>destrian<br>Improve-<br>ments | Multi-<br>Use Trail<br>Projects |
| 2015 LOS                       | 0.170 (Link)                    | 0.10 (TDM)                 | 0.10                             |  | -   | -                               |
| 2040 LOS                       | -                               | 0.09 (TDM)                 | 0.09                             |  | -   | -                               |
| 2015 Population<br>Density     | 0.083                           | 0.09                       | 0.09                             |  | 0.25  | 0.3                             |
| Percent Growth                 | 0.083                           | 0.09                       | 0.09                             |  | 0.25  | 0.3                             |
| Employment Density             | 0.083                           | 0.09                       | 0.09                             |  | -   | -                               |
| Roadway Typology               | 0.083                           | 0.09                       | 0.09                             |  | -   | -                               |
| Crashes                        | 0.083                           | -                          | 0.09                             |  | -   | -                               |
| 2015 Total Daily<br>Volume     | 0.083                           | 0.09                       | 0.09                             |  | -   | -                               |
| 2040 Total Daily<br>Volume     | 0.083                           | 0.09                       | 0.09                             |  | -   | -                               |
| Freight Significance           | 0.083                           | 0.09                       | 0.09                             |  | -   | -                               |
| Public Input                   | 0.083                           | 0.09                       | 0.09                             |  | 0.1   | 0.1                             |
| Environmental Complexity       | 0.083                           | 0.09                       | -                                | -                                      | -   | -                               |
| Active Transportation<br>Score | -                               | -                          | -                                | -                                      | 0.4   | -                               |
| Community Facilities           | -                               | -                          | -                                | -                                      | -   | 0.3                             |
| 2007 CTP Needs                 |                                 |                            |                                  | 0.20                                   |   |                                 |
| INRIX                          |                                 |                            |                                  | 0.20                                   |   |                                 |
| HERE                           |                                 |                            |                                  | 0.20                                   |   |                                 |
| Safety Analysis                |                                 |                            |                                  | 0.20                                   |   |                                 |
| Community Input                |                                 |                            |                                  | 0.20                                   |   |                                 |

measure of future priority roadways.

Roadway Typology, determined through a combination of GDOT roadway functional classification and presence on the ARC Thoroughfare network. Roadway typology indicates the relative importance to the regional roadway network. Roadways marked as arterials and present on the ARC network should have the highest priority.

Environmental Complexity, an approximation of the difficulty of constructing a project based on potential environmental impacts. Wetlands, floodplains, parks, and cultural resources are along a proposed project alignment were considered in this variable.

Freight Significance, based on freight generating land uses adjacent to a project and project alignment with ARC's Atlanta Strategic Truck Route Master Plan (ASTRoMaP). Projects that match only one of these criteria were considered to be of medium freight significance, while projects that match both criteria were considered to be of high freight significance.

Active Transportation Score, taken from the Active Transportation Analysis conducted for the Needs Assessment portion of the Henry County JCTP. The analysis incorporated a wide range of variables to determine the demand for walking and other active transportation modes in a given area.

Community Facilities, based on existing facility conditions. The presence of community facilities along a route indicates the potential for active transportation uses. Wherever these facilities are present, active transportation improvements were prioritized.

Public Input, based on public comments taken from a variety of sources, such as public meetings, phone surveys, online surveys, stakeholder meetings, and comments from a technical advisory committee. Projects which are endorsed or opposed by the community had their priority adjusted accordingly.

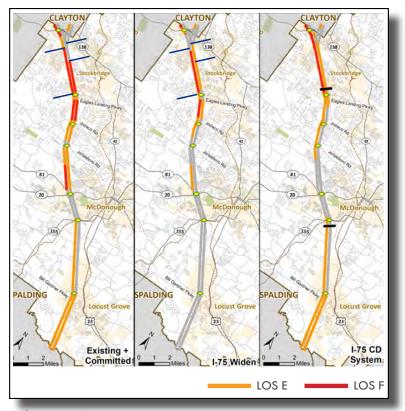
#### **Prioritization Variables by Project Category**

Once scores for project performance within each variable have been generated, each score is weighted to reflect the importance of that variable to the type of project. The scores for all variables associated with a project are given a weighted average, generating a final prioritization score between 1 and 10. Weighted averages are assigned to each variable within each project category. While many variables, such as 2015 Roadway Level of Service (LOS), are used across multiple project categories, scores across categories are not directly comparable. These scores are comparable only within project categories and/or modes. Scores for roadway capacity projects are not comparable with scores for sidewalk projects. Table 9 displays the variables used to prioritize each project category and their associated weights.

#### Intersections

Intersections were prioritized with a separate methodology. Intersection prioritization was conducted through a need based analysis which relied on the following data sources. Intersections were given points based on which data sources they were identified by, with one point awarded for each data source. These scores were then summed. Intersections located on a proposed roadway project with a high prioritization score were reduced in their own intersection score since they will be completed at the time of the roadway project.

Figure 24: I-75 Corridor Scenario Modeling Results, 2040 PM



# Model Scenarios

The Travel Demand Model was used to investigate the potential comparative benefits that would result from transportation investments in the I-75 corridor and on Henry County arterials. The model was also used to identify useful transit investments.

#### **I-75**

Three scenarios were modeled for the 1-75 Corridor. In the 2040 Existing Plus Committed (E+C) scenario, all funded, near-term programmed projects were included in the model, including the managed lane / toll project currently under construction. The 2040 E+C scenario represents a baseline scenario, because it includes projects that are already planned and programmed for construction by 2040. Because it is already underway, the managed / toll lanes project is includes in all three I-75 scenarios.

The Widen scenario includes eight general purpose lanes on I-75 from the terminus of the current eight-lane section at the Eagles Landing / Hudson Bridge interchange south through Henry County.

The Add Collector-Distributor (CD) Lanes scenario included one northbound CD lane and one southbound CD lane from south of Eagles Landing / Hudson Bridge to SR 155.

Results from the scenario modeling in the I-75 corridor indicate that road widening would result in improved LOS, but would not result in all segments of I-75 in Henry County operating at LOS E or better (**Figure 24**).

The construction of C-D lanes is projected to improve traffic function on the I-75 mainline. This improvement is a function of moving local trips from the mainline to the C-D lanes. Segments of the I-75 mainline that are projected to operate at LOS F by 2040 without the C-D lanes are projected to operate at LOS E with the C-D lanes. At these location, however, the C-D lanes themselves are projected to operate at LOS F.

#### **Arterials**

The Arterials scenario was used to test the potential benefits of improvements to primary and secondary roadways in Henry County. The Arterials scenario included improvements to any primary or secondary route that the Travel Demand Model had previously identified as likely to be congested in 2040. It was assumed that congested two-lane roadways would be widened to four lanes, and congested four-lane roadways would be widened to six lanes. This scenario also sought to improve connectivity across the county by improving existing roadways and/or construct new roadways that could be used as alternate routes to I-75. No improvements along the I-75 corridor were included in this scenario.

Results from the Arterials scenario indicate that several benefits would accrue from investments along arterials in Henry County. First, the model found travel time savings was likely to result from the arterials improvements,

**Table 10: Phasing Assumptions for Tiered Project Recommendations** 

| Phase  | Preliminary<br>Engineering | Right of Way | Utilities | Contingency | Construction |
|--------|----------------------------|--------------|-----------|-------------|--------------|
| Tier 1 | 2017                       | 2019         | 2021      | 2021        | 2021         |
| Tier 2 | 2023                       | 2025         | 2027      | 2027        | 2027         |
| Tier 3 | 2031                       | 2033         | 2033      | 2033        | 2033         |

**Table 11: Henry County JCTP Funding Projections** 

| Phase                                   | Federal   | State    | Local   | Total     |
|---|-----------|----------|---|-----------|
| Short Term Action Plan<br>(2016 – 2021) | \$55 M    | \$12.2 M | \$95.5 M - SPLOST IV (2016-2020)<br>\$43.3 M - SPLOST V (2020-2021) | \$206 M   |
| Mid-Range(2022 - 2030)                  | \$94.9 M  | \$19.3 M | \$268 M   | \$382.2 M |
| Long-Range (2031 – 2040)                | \$137.1 M | \$32.1 M | \$409 M   | \$578.2 M |
| Total                                   | \$287 M   | \$63.6 M | \$815.8 M   | \$1.17 B  |

with some short trips taking roughly ten fewer minutes than without the improvements. Improved north-south connectivity may also remove several trips from I-75 entirely, because drivers may avoid using I-75 if they have an alternative north-south route. When these trips are removed from I-75, the driver of the removed trip benefits from not having to travel on a congested interstate, and the drivers on I-75 also benefit from having one fewer driver among their numbers.

#### **Transit**

Various transit routes were modeled to determine an appropriate pilot project for Henry County Transit (HCT). Routes that would connect McDonough and Stockbridge, McDonough and Locust Grove, and McDonough and Hampton were all modeled. Relative to the other routes, the McDonough-Stockbridge connector performed the best in terms of ridership. These transit modeling results, along with analysis of current HCT ridership, demographics, and community input, led to the SR 42 local fixed bus route recommendation.

# **Funding**

#### **Revenue Forecasting**

The Henry County JCTP is a fiscally constrained plan which strives to achieve realistic project delivery based upon forecasted funding levels available within the 2040 planning horizon. To accomplish this revenue forecasting was conducted to identify available funding levels from federal, state, and local sources within three future funding periods. Assumptions about these tiered funding periods, used in the funding analysis and cost estimation, are presented in **Table 10**. Estimated funding amounts arrived at by the revenue forecasting exercise by implementation phase and source are presented in **Table 11**. The methodology and assumptions used to develop these forecasts is presented below for each source.

# **Local Funding**

Henry County currently has a Special Purpose Local Option Sales Tax (SPLOST) that is used to fund numerous transportation projects. SPLOST has been popular within the county and is in its fourth iteration. It is assumed that local SPLOST funding will continue in the future across the 2040 planning horizon. It is expected to grow at the historic rate of 3.39%, which is the average growth rate for 2009-2014. In keeping with current allocations in SPLOST IV, it is assumed that 61 percent of funding will be allocated to transportation planning.

# State Funding

To estimate future state funding levels an analysis of existing state funding programmed in the ARC's Transportation Implementation Plan (TIP) was conducted. It is assumed that the current level of state of funding is expected to continue in the future. An annual growth rate of 3.18% was applied to this across the 2040 planning horizon. This growth rate is in keeping with the ARC's estimates for expected increases in state funding within the Regional Transportation Plan (RTP).

#### Federal Funding

It is assumed that current federal funding levels programmed in the TIP are expected to continue in the future. An annual growth rate of 2.79% was applied to current levels in the TIP. This growth rate was calculated from projected increases in the FAST (Fixing America's Surface Transportation) Act funding for the state of Georgia (2015-2020).

#### **Alternative Funding Scenarios**

Several alternative funding scenarios were developed, including a local bond, Special Purpose Local Option Sales Tax (SPLOST) with a 100 percent allocation to transportation funding, and an additional full penny T-SPLOST dedicated to transportation projects. Additional funding through Community Improvement Districts (CIDs) and Tax Allocation Districts (TADs) are also explored within this section. **Table 12** below details potential funding levels provided through these alternative scenarios. These forecasts are for illustrative purposes only to help clarify the major differences between various financing options. These represent order of magnitude funding forecasts and are subject to various factors. Should the County pursue one of these alternatives it is recommended that a detailed financial study is conducted to further refine these funding outcomes.

# **Local Transportation Bond**

The County has the ability to pursue a local transportation bond, with the approval of voters, which could provide significant funding potential. In 2014, Forsyth County passed a \$200 million bond that was used to fund

**Table 12: Alternative Funding Scenarios** 

|               | Bond          | 100 Percent SPLOST | T-SPLOST        |
|---------------|---------------|--------------------|-----------------|
| Phase I       | \$200,000,000 | \$27,700,000       | \$156,700,000   |
| Phase II      |               | \$171,300,000      | \$439,200,000   |
| Phase III     |               | \$261,500,000      | \$691,000,000   |
| JCTP Total    | \$200,000,000 | \$460,500,000      | \$1,286,900,000 |
| New Shortfall | \$(1.98)      | \$(1.72)           | \$(0.89)        |

a mix of county projects and GDOT projects. The bond allocated \$119 million to county projects and utilized the remaining \$81 million to leverage an additional \$93 million from GDOT. Given the similarity in size between Forsyth and Henry for illustrative purposes the bond funding scenario is assumed to also be \$200 million. It was assumed that \$100 million would be spent on county projects and \$100 million could be used on state route projects to leverage an additional \$100 million in state funding from GDOT.

#### Full SPLOST Allocation to Transportation

The County is currently allocating 61 percent of funding received from their SPLOST towards transportation projects. The County has the potential to fund significantly more transportation projects through its existing SPLOST revenue stream by allocating a higher percentage towards transportation. For illustrative purposes a scenario has been developed in which the County allocated 100 percent of funding to transportation. Under this scenario there is an additional \$27.7, \$171.3, and \$261.5 million in local revenues in Phases 1, 2, and 3 respectively.

#### T-SPLOST

Through provisions included within the state's Transportation Funding Act of 2015, the County has the ability to enact an additional T-SPLOST on top of their existing SPLOST, up to a maximum of one-cent. All revenues from this tax are required to be spent on transportation projects, with 30 percent spent on projects in the State Strategic Transportation Plan (SSTP). This scenario assumes a maximum one cent collection rate with similar revenues and growth rates to the existing one cent SPLOST. This has the potential to significantly increase local funding levels available for transportation projects. This scenario provides an additional \$156.7 million, \$439.2 million, and \$691 million in local funding in Phases 1, 2 and 3 respectively.

# CIDs and TADs

Other potential local funding mechanisms the County could pursue include Community Improvement Districts (CIDs) and Tax Allocation Districts (TADs). A CID is a funding mechanism that can be used by local businesses, through which they self-impose taxes to help fund transportation improvements within designated boundaries. There is the potential to form a CID in the SR 155 industrial area to fund transportation projects in this area.

Tax Allocation Districts (TADs) are a valuable economic development tool that can be used by the County to fund transportation improvements within a designated boundary. Within a TAD, increases in property tax revenues, mainly generated from new development, can be allocated to pay for transportation infrastructure.

# **Cost Estimates Methodology**

Cost estimates were developed for this JCTP using two cost estimating tools. The costs for widening projects on State Routes were estimated using GDOT's Planning-Level Cost Estimating spreadsheets for Henry County. The costs for all other projects were developed using the ARC's Planning-Level Cost Estimation Tool. The ARC tool breaks down costs in terms of preliminary engineering, right of way acquisition, construction and contingency. The GDOT tool breaks down costs in terms of preliminary engineering, right of way acquisition, construction and utilities, with each phase including its own contingency. Initial costs were vetted by professional roadway engineers with experience programming projects at the county and state levels. Project costs were inflated to Year of Expenditure levels at a rate of 2.1 percent per year, in accordance with the ARC's TIP.

# New Roadways

Henry County's increasing density, traffic volumes, and population and job growth demand the construction of new connections. As activity centers grow and evolve., new roadways can provide critical connections between activity centers and alleviate overburdened existing routes. While new roadway projects can represent significant investments of time and money for Henry County, ongoing rapid growth increases the importance that the county remain committed to a long-term vision of a connected roadway network.

#### **New Roadway Framework**

To this end, development patterns must be guided to fit within the New Roadway Framework. The New Roadway Framework is the sum of the projects presented in the map of new roadway recommendations in Figure 25. New road projects require long-term vision and planning so that the right-of-way is available and relatively undeveloped when the projects are ready for construction. Thus project recommendations indicated as longrange in Figure 28 must remain in mind in current land use planning even if their construction is not projected to occur in the foreseeable future.

The New Roadway Framework, then, is intended to serve as a County-wide plan for new roadway connections. It is proposed that the County adopt this map as a planning document. Not just a transportation plan, the New Roadway Framework should be directly incorporated into the County's land use planning activities.

When considering new development, the County should refer to the Framework to determine if the proposed project would interfere with the long-range roadway network. Development should be steered to ensure that critical connections are not blocked by future developments.

Right of way for the new roadways indicated by this Framework should be preserved through the land use permitting process until funds are available for roadway construction.

Key New Roadway Framework policies include:

- Formal adoption of the New Roadway Framework as a transportation and land use planning tool.
- Active usage of the New Roadway Framework throughout the development permitting process to ensure that needed right of way is preserved.

#### **Short Term Action Plan**

Table 13 displays all new roadways included in the Short Term Action Plan. These roadways can provide critical new connections between fastgrowing activity centers in Henry County. Three of the projects are part of the McDonough Parkway Extension (McDonough Bypass) program and are fully funded as part of the SPLOST program. Henry County should prioritize the completion of these roadways and ensure that development patterns accommodate these facilities into the future. The Western Parallel Connector, while not currently funded, will provide a valuable alternative route on the western side of 1-75 in Henry County, alleviating traffic on the Interstate and providing an important local connection.

The new roadway project that is not a part of the McDonough Parkway Extension is the Western Parallel Connector. This new alignment would provide an alternate north-south route, west of and parallel to I-75, between Jonesboro Road and Hudson Bridge Road. This project would remove some local trips from I-75, a need identified by this JCTP.

Table 13: New Road Projects in the Short Term Action Plan

| Project<br>Code | TIP | ARC ID  | Name  | Extent  | Description   | Project Cost  | County Funding            | Notes                     |
|-----------------|-----|---------|---|---|---|---------------|---------------------------|---------------------------|
| R-78            | N   | NA      | MCDONOUGH PARKWAY EXTENSION (MCDONOUGH BYPASS): PHASE II                      | FROM SR 1.55 (DECATUR ROAD) TO SR 20 (CONYERS HIGHWAY / LAWRENCEVILLE STREET) | Paving Turner Church road as a two lane rural section | \$ 1,802,000  | Fully funded in SPLOST IV | Fully funded in SPLOST IV |
| R-2             | Υ   | HE-179  | WESTERN PARALLEL CONNECTOR - NEW ALIGNMENT                                    | FROM JONESBORO ROAD TO HUDSON<br>BRIDGE ROAD                                  | New 2 lane roadway                                    | \$ 16,950,000 | \$ 300,000                | HB 170 Funding            |
| R-1             | Υ   | HE-118B | MCDONOUGH PARKWAY EXTENSION (MC-<br>DONOUGH BYPASS): PHASE II - NEW ALIGNMENT | FROM US 23 (ATLANTA STREET) TO SR 155 (DECATUR ROAD)                          | New 4 lane roadway                                    | \$ 5,700,000  | \$ 5,700,000              | Fully funded in SPLOST IV |
| R-27            | Υ   | HE-118E | MCDONOUGH PKWY EXTENSION (MCDONOUGH BYPASS): PHASE IV - NEW ALIGNMENT         | FROM SR 20/81 (HAMPTON STREET) TO<br>HENRY PARKWAY                            | New 4 lane roadway                                    | \$ 25,000,000 | \$ 25,000,000             | Fully funded in SPLOST IV |

# Recommendations

# Capacity Projects: Roadway Widenings

Roadway widenings are the most cost-prohibitive and high-impact means of increasing capacity on an existing roadway. Despite this, roadways with severe congestion may require additional through lanes and turnina lanes in order to facilitate a level of service that is acceptable to users. Given the expense of such projects, widenings should be prioritized along the most critical roadways in a given area. These roadways may serve major commercial corridors and activity centers, or may serve as primary north-south or east-west routes through a region. Roadway widenings must incorporate intersection and design standard improvements, where appropriate, to ensure that the added capacity is utilized to its full potential.

#### **Short Term Action Plan**

The majority of widening projects selected for the Action Plan are already fully or partially funded. These projects are focused on enhancing capacity on Henry County's major arterial corridors in order to reduce congestion, enhance freight operations, and improve overall traffic conditions. Roadway widenings listed in the Short Term Action Plan are presented in Table 14.

The following projects are of particular note:

- The US-23 Widening (project R-7) is not currently funded through the utility and construction phases. Henry County should strive to increase their local match for this project in order to move towards a "Main Street Henry" complete streets concept. This concept is intended to promote US-23 as a signature corridor for the County and divert local northsouth traffic away from the I-75 corridor.
- The SR-155 Widening between Bill Gardner Parkway and the I-75 interchange (project R-52) is not currently funded but could provide major congestion relief along the freight-heavy SR-155 corridor. Henry County should coordinate with GDOT to determine funding allocations and move the project forward given the critical nature of the corridor. This project naturally complements the currently funded widening of SR-155 northeast of I-75.

Longer-range widenings are prioritized in this plan based on congestion needs and corridor significance. While widenings are the most direct and impactful way to increase roadway capacity, they cannot permanently eliminate congestion due to the nature of induced demand and continued population and employment growth throughout the County. For this reason, they should be concentrated along corridors intended for use as primary arterials and activity centers.

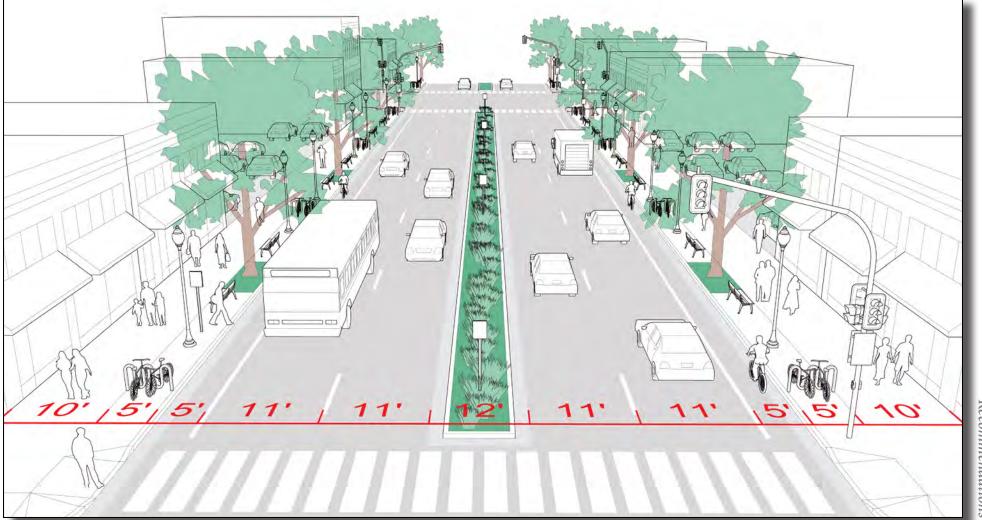
| Project<br>Code | TIP | ARC ID  | Name  | Extent  | Description   | Project Cost | County Funding | Notes  |
|-----------------|-----|---------|---|---|---|--------------|----------------|--|
| R-8             | Υ   | HE-113  | SR 155 WIDENING   | FROM I-75 SOUTH TO SR 42  | Adding 1 lane in each direction   | \$20,231,053 | \$-            | Fully funded in TIP  |
| R-5             | Υ   | HE-020A | SR 20/81 (HAMPTON STREET): SEGMENT<br>1 - NEW ALIGNMENT   | FROM EAST OF I-75 SOUTH TO PHILLIPS DRIVE   | Adding 1 lane in each direction   | \$15,572,828 | \$1,590,000    | Fully funded in TIP  |
| R-52            | N   | NA      | SR 155 WIDENING   | BETWEEN BILL GARDNER<br>PARKWAY AND I-75/SR 155<br>INTERCHANGE                            | Primary Congestion Corridor/<br>Adding 1 lane in each direction.<br>Project would potentially include<br>widening I-75 underpass. | \$38,165,800 | \$7,633,160    | Project not yet funded. 20% local funding 80% federal and/or state. Coordination with GDOT needed to move project forward                                      |
| R-10            | Y   | HE-920B | SR 920 (MCDONOUGH ROAD / JONES-BORO ROAD) WIDENING  | FROM US 19/41 (TARA BOU-<br>LEVARD) IN CLAYTON COUNTY<br>TO 1-75 SOUTH IN HENRY<br>COUNTY | Adding one lane in each direction   | \$74,079,949 | \$-            | Fully funded in TIP  |
| R-7             | Y   | HE-107  | US 23 WIDENING  | FROM DOWNTOWN<br>MCDONOUGH TO SR 138<br>(NORTH HENRY BOULEVARD)                           | Adding 1 lane in each direction   | \$90,304,371 | \$12,466,039   | UTL and Construction phase funding not yet identified. 20% local match allocated to keep project moving forward and/or fully fund "Main Street Henry" concept. |
| R-6             | Y   | HE-020B | SR 20/81 (HAMPTON STREET / KEYS<br>FERRY ROAD) - EXTENSION AND UP-<br>GRADE OF ONE-WAY PAIR THROUGH<br>DOWNTOWN MCDONOUGH | FROM WEST OF NORFOLK<br>SOUTHERN RAIL LINE TO EAST<br>OF LEMON STREET                     | Adding 1 lane in each direction   | \$8,200,035  | \$-            | Fully funded in TIP  |
| R-34 (A)        | Y   | HE-05   | SR 81 WIDENING  | FROM LEMON STREET TO N<br>BETHANY ROAD  | Primary Congestion Corridor/<br>Adding 1 lane in each direction   | \$23,020,000 | \$4,304,000    | ROW and CST phase funding not yet identified.<br>20% local funding allocated to move project<br>forward. 80% federally funded.                                 |
| R-9             | Υ   | HE-161A | ROCK QUARRY ROAD WIDENING   | FROM EAGLES LANDING PARK-<br>WAY TO SR 138  | Adding 1 lane in each direction   | \$32,981,200 | \$31,781,200   | Funding available in SPLOST IV   |

# Main Street Henry County

State Route 42 is a two-lane rural roadway connecting McDonough and Stockbridge. This corridor is currently under design by the Georgia Department of Transportation (Pl No. 0007855) for a widening to a four-lane road. With this current activity, it presents an opportunity for the county to define this corridor as a signature street serving the two largest cities in the County. It is recommended that this corridor place heavy emphasis on incorporating design elements that support multiple modes safely while creating a sense of place, promoting health and prosperity and defining the character of the area.

Figure 27: Vision for Main Street Henry County, Urban Section

The SR 42 corridor is identified in the transit feasibility study as a potential for fixed route bus service within Henry County. Additionally, this corridor would provide for an excellent amenity to residents by incorporating a multiuse trail and high pedestrian LOS A sidewalks This would add value to the corridor and activate it for cyclists and pedestrians. Through the use of streetscaping and complete street concepts, the County can define the character of the corridor to control speeds, and provide a true sense of place through the look and feel of this roadway. The proposal to advance this roadway as a "complete street" is in line with GDOT's Complete Streets Policy. Specific details on how to apply the Complete Streets Policy is contained in Chapter 9 of GDOT's Design Policy Manual.

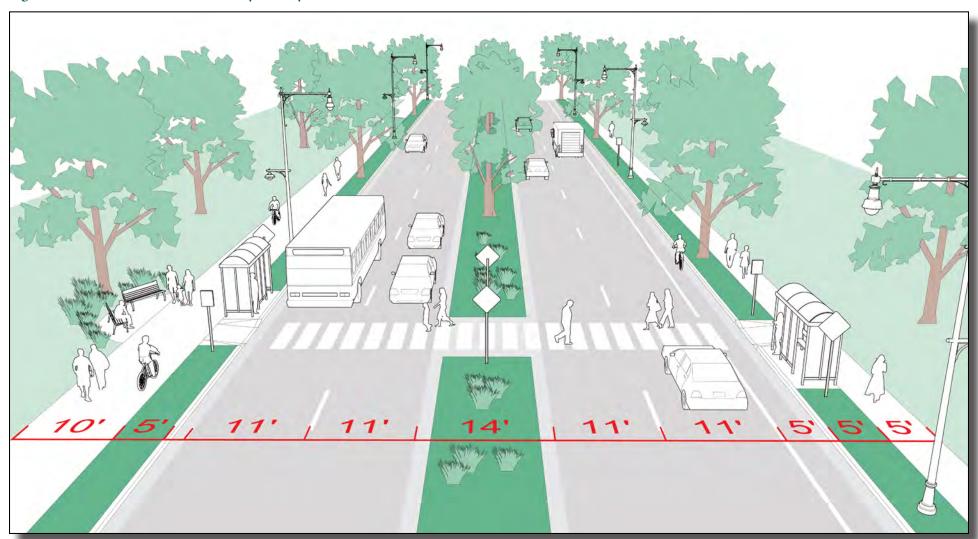


Recommendations

"It is the policy of the Georgia Department of Transportation (GDOT) to routinely incorporate bicycle, pedestrian, and transit accommodations into transportation infrastructure projects as a means for improving mobility, access, and safety for the traveling public. Accordingly, GDOT coordinates with local governments and planning organizations to ensure that bicycle, pedestrian, and transit needs are addressed, beginning with system planning and continuing through design, construction, maintenance and operations. This is the "Complete Streets" approach for promoting pedestrian, bicycle, and transit travel in the State of Georgia." – GDOT Design Policy Manual February 2016

Figure 28: Vision for Main Street Henry County Rural Section

The Main Street concept for SR 42 (**Figure 27** and **Figure 28**) serves as a stepping stone to further connect transportation to the land use. As the project moves through the design phases, the county should coordinate with GDOT to define appropriate elements for inclusion in the widening to ensure that the plans support future development of the transit system, enhance the cycling and pedestrian experience and is visually appealing. In concert with the development of the roadway project, it is recommended that the County consider land use policies that complement the roadway and create a new context for Main Street Henry County. Policies to consider are zoning reviews for new development, overlay districts that define design standards for new development, and signing and wayfinding between the cities.



# Operations and Safety Recommendations

Operations-based projects such as turn lane and shoulder additions, signal re-timings, and functional class upgrades can provide critical improvements to a region's transportation network. In addition to increasing capacity, these projects create a safer and more efficient transportation network by fitting roadways to their actual usage and reducing conflicts created by changing traffic patterns. This matching of roadways to their actual, rather than historical, usage patterns is a fundamental part of any effective transportation network. Due to Henry County's explosive growth over recent decades, this problem of mismatched roadways is of particular concern. Operations and safety project recommendations are mapped by tier in Figure 29.

# **Arterial Upgrade Program**

In order to assuage the roadway mismatching present throughout Henry County, the County should follow an arterial upgrade program. This program is intended to upgrade identified roadways from their present design standards to more suitable arterial design standards. Projects identified for this program are roadways which serve traffic volumes and patterns that no longer fit with their original design standards. Enhancement of these roadways to arterial design standards will greatly enhance connectivity throughout Henry County and contribute to a more efficient roadway network. Arterial Upgrade projects should implement the following where possible for rural routes:

- · Wide shoulders (FHWA recommends 2-8 foot shoulders, with wider shoulders being preferred).
- · Access management policies as described in the access management section of this report.
- · Turn lanes with adequate storage wherever significant turning movements are present.
- · Lane widths and turning radii that facilitate efficient travel and accommodate heavy trucks where needed.
- · Urban, developing, and major commercial routes should incorporate the following where possible:
- Curb and gutter of 2-6 feet as per GDOT guidelines.
- Table 15: Operations and Safety Projects in the Short Term Work Program

| • | Sidewalks  | as   | inc | dicated | d in | the  |
|---|------------|------|-----|---------|------|------|
|   | sidewalk p | olio | СУ  | section | of   | this |
|   | report.    |      |     |         |      |      |

- Turn lanes with adequate storage wherever significant turning movements are present
- Center medians and center turn lanes where possible.
- Crosswalks at all major intersections or wherever pedestrian traffic is indicated.



All design standards not specified in this report should be referenced via GDOT or FHWA's arterial design guidelines.

Chambers Road between Jodeco Road and SR 81 is an example of a roadway suitable for the arterial upgrade program. Traffic volumes and patterns along this segment no longer match the rural collector design of the roadway due to the number of users using the corridor as a parallel route to 1-75. If upgraded to arterial standards, this roadway would provide a safe, efficient alternative to I-75 and other existing north-to-south arterials in the area. Projects flagged as "Arterial Upgrades" in the project lists associated with this report are candidates for the Arterial Upgrade Program.

#### **Enhanced Maintenance**

For rural sections, these adding a wider shoulder can be done concurrently with routine maintenance/repaving. For a small additional cost, shoulders in many cases can be extended. It is recommended that the arterial upgrade recommendations are coordinated and managed through the Henry DOT maintenance program.

#### **Short Term Work Plan**

The Chambers Road Arterial Upgrade is included in the Short Term Action Plan for Henry County (Table 15). This project can serve as a pilot project for the Arterial Upgrade Program. Additional arterial upgrades and other operations and safety projects are included in the mid-range, long-range, and unconstrained transportation plans.

| tes |      |
|-----|------|
|     | 2000 |
|     |      |

| Project<br>Code | TIP | ARC ID | Name          | Extent                        | Description  | Project Cost | County Funding | Notes         |
|-----------------|-----|--------|---------------|-------------------------------|--------------|--------------|----------------|---------------|
| R-49 (A)        | N   | NA     | CHAMBERS ROAD | BETWEEN JODECO ROAD AND SR 81 | Connectivity | \$6,106,332  | \$6,106,332    | Local project |

# Intersection Projects

Intersection improvements are an effective means of improving safety and operations at dangerous or inefficient intersections. These improvements are generally much more inexpensive than widening or other capacity projects. Intersection improvements can target specific turning movements and reconfigure lanes and timings to facilitate the movements with the greatest volumes. This can greatly enhance throughput and safety at intersections where delays are high due to turning vehicle obstructions, insufficient turning storage, or inefficient timings. Intersection improvement recommendations are mapped Figure 30.

Intersection improvements are often included in maintenance, operations, and capacity corridor projects. This means that many otherwise high priority standalone intersection projects may be completed during high priority corridor projects on the adjacent roadways. Many intersection projects in this plan were placed in longer range tiers not because they are unimportant, but because they are intended to be completed as part of larger corridor projects. With this in mind, use these intersection projects as indicators of where intersection improvements may be most needed or effective.

#### **Short Term Action Plan**

Since many intersection projects are intended for completion concurrent with associated corridor projects, only two independent intersection projects were selected for the Action Plan, as listed in Table 16. Furthermore, many of Henry County's intersections are included in the existing SPLOST program and marked for improvement. These intersections are not listed here.

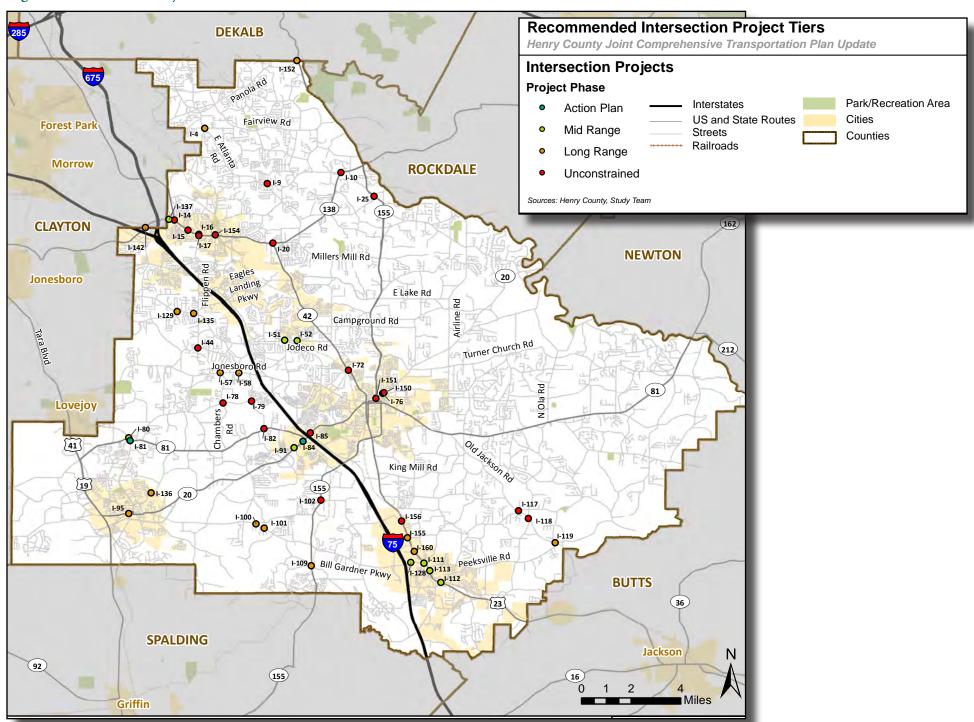
The new projects for inclusion in the Action Plan are as follows:

- SR-81 at Old Highway 3 (project I-81) is indicated for the addition of a right turn lane at the westbound approach to the intersection along SR-81. This improvement will prevent left-turning vehicles from stopping traffic and creating severe queueing problems at the intersection. If traffic volumes continue to grow at this intersection, signalization could be required.
- SR-20 at SR-81 (project I-84) is indicated for the addition of a second left-turn lane at the southbound approach to the intersection along SR-81. This intersection currently experiences extreme delay and queueing due to the large volume of vehicles turning left onto SR-20 from SR-81. The additional turning storage will decrease delay and allow rightturning vehicles to progress.

Table 16: Intersection Projects in the Short Term Work Program

| Project<br>Code         | TIP                     | ARC ID  | Name      | Extent    | Description   | Project Cost | County Funding | Notes  |
|-------------------------|-------------------------|---|-----------|-----------|---------------|--------------|----------------|--|
| SR 81<br>@ Old<br>Hwy 3 | SR 81<br>@ Old<br>Hwy 3 | Short term<br>improve-<br>ment - WB<br>right-turn<br>lane | \$514,250 | \$514,250 | Local project | \$11,980,207 | \$200,000      | PE phase only funding in<br>short term action plan |
| SR 20 @<br>SR 81        | SR 20 @<br>SR 81        | Add second  | \$660,000 | \$660,000 | Local project | \$10,000,000 | \$10,000,000   | Locally funded program                             |

**Figure 30: Intersection Project Recommendations** 



# Active Transportation

Active transportation includes modes of travel that are human-powered, such as walking or biking. Recommendations form this CTP include a multiuse trail network and a sidewalk program.

#### **Trails**

This plan considered a multiuse trail network in Henry County because it would allow for recreation near residential areas as well as safe transportation to community resources such as schools and parks. The proposed network is shown in terms of tiered project recommendations in Figure 31. The JCTP is also recommending a Greenway Trail Master Plan Study as part of the Short Term Work Program. The trail network, where possible, also includes connections to existing or planned trail projects in neighboring counties. These connections would allow for Henry County residents to take advantage of trail investments made elsewhere.

Trail recommendations are presumed to take the form of ten-foot wide Greenways, which are a premium style of active transportation infrastructure. These greenways will be constructed on their own right-ofway, separate from the roadway network, except in places where existing constraints make that impossible. Separated from vehicle traffic, this type of trail system may be placed in natural settings to provide many benefits in terms of safety and beauty of the surroundings. It is recommended that the County pursue the proposed trail system in partnership with agencies experienced in trail construction, such as the PATH foundation.

#### **Sidewalks**

# Regulations

Sidewalk regulations are included in Chapter 8 (Infrastructure) of the Unified Land Development Code (ULDC), with additional requirements included within overlay zoning districts and some zoning codes. Chapter 8 of the ULDC requires sidewalks on both sides of streets within all commercial, industrial, or residential subdivisions and all mixed-use developments. Sidewalks are required to be four feet wide, permit handicapped access at intersections, and be a minimum of two feet back from the curb line to provide a buffer between pedestrians and vehicles.

Additional sidewalk requirements included in the ULDC are:

- · The Fairview Road Overlay District requires five-foot sidewalks on both sides of all streets within the overlay district.
- · The Bruton Smith Parkway Overlay District requires five-foot sidewalks on both sides of all interior roadways and ten-foot multi-use paths along Bruton Smith Parkway.

- Sidewalks are required to connect non-residential developments and mixed non-residential and residential developments in mixed-use zoning districts.
- Sidewalks are required in designated activity centers and crossroads communities.

#### Pedestrian Facility Recommendations

ULDC requirements have resulted in an incomplete sidewalk network, particularly along collector and arterial roadways. To connect the existing sidewalk network, the following sidewalk policy recommendations have been identified:

- The County should adopt a Complete Streets policy for new roadways and widenings. Complete Streets provide for safe, comfortable, and convenient travel for all roadway users, including pedestrians, bicyclists, transit riders, and those driving in automobiles. This policy should require new roadways and widened roadways to incorporate sidewalks on both sides of the roadway into the project design.
- To facilitate the construction of missing sidewalk segments along developed corridors, it is recommended that the County allocate a portion of the local SPLOST revenues annually to a general sidewalk fund. Sidewalk segments have been identified and prioritized for construction, as presented in Figure 32.
- Several missing sidewalk segments have been identified on roadways programmed or recommended for widening (e.g., SR 42, Jonesboro Road). Where feasible, sidewalk improvements should be incorporated in the design of these projects to facilitate cost efficiency and help meet pedestrian needs within these corridors.

# Pedestrian Comfort and Safety Standards

The National Association of City Transportation Officials (NACTO) recommends a desired minimum sidewalk through zone of six feet, with an absolute minimum of five feet. Where sidewalks are directly adjacent to moving traffic, a minimum through zone of eight feet is desired. These widths allow for a comfortable buffer between sidewalk users and roadway users. NACTO also recommends that sidewalks be cleared of fixed objects and obstructions such as utility poles and that street trees and lower design speeds be implemented along roadways where pedestrian traffic is expected.

NACTO recommends that crosswalks be implemented at all intersections with volumes greater than 3000 average daily traffic, speeds greater than 20 miles per hour, or greater than two lanes of traffic. A well-marked crosswalk is a critical amenity for pedestrians that greatly increases comfort and safety. Along roadways with four or more traffic lanes, pedestrian safety islands can further enhance crosswalks and generate increased walking demand. These safety islands should include curbs to protect waiting pedestrians.

- Minimum sidewalk through zones of five or six feet.
- The use of street trees and other vertical buffers to provide separation between traffic and pedestrians.
- The use of an extended horizontal buffer, planted or otherwise, along streets with high speeds or traffic volumes.
- · Implementation of well-marked and frequent crosswalks, including mid-block crosswalks where appropriate.
- The use of curbs and curbed medians wherever appropriate to provide increased buffers and protection for pedestrians.

Table 17 describes various pedestrian Levels of Comfort on a scale from A to F. Level of Comfort (LOC) A indicates a roadway that is largely dominated by pedestrians and is extremely comfortable and safe for walking. Level of Comfort F represents extremely unsafe and uncomfortable walking conditions where no pedestrian facilities are available. These Levels of Comfort are intended to serve as a guide when planning new roadways. While LOC A represents the ideal pedestrian street, it is likely only appropriate for dedicated pedestrian areas or urban centers. LOC B is the desired standard for all roadways where pedestrian traffic is desired or expected. LOC D is the desired minimum standard for rural roadways where pedestrian traffic is expected, but not necessarily encouraged.

#### Pedestrian Policy Recommendations

Using the pedestrian Levels of Comfort as a guide, LOC B should be implemented whenever possible, particularly where pedestrian traffic is desired. LOC D should be used as the minimum standard for a safe and comfortable pedestrian facility. Guidelines for the implementation of these standards are below. All sidewalks should be constructed to the standards of the Americans with Disabilities Act (ADA).

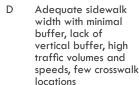
Major pedestrian corridors (where pedestrian traffic is desired or already present) should be designed to achieve LOC B whenever possible. This comfort level requires:

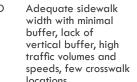
- · Curb and gutter totaling two feet
- Sidewalks with a minimum width of six feet and a desired width of eight feet
- Marked crosswalks at all intersections
- Planted buffers with a minimum width of three feet, with five feet desired
- · Where right of way permits, curbed and planted medians with pedestrian safety islands at crosswalks
- · Additional buffer elements such as street trees, on-street parking, and bicycle lanes where appropriate or possible
- · Where all of these elements are not attainable, implementation of curb and gutter, six foot sidewalks, and planted buffers of at least three feet should be prioritized. Creation of the buffer zone is critical because it allows further enhancements (plantings, street furniture, etc.) to be made at a later date if desired.

| Table 1 | 17: Pedestrian Leve  | ls of Comfort          |
|---------|--|------------------------|
| LOC     | Description  | Example                |
| A       | Pedestrians dominate<br>roadway, vehicles<br>yield to pedestrians,<br>wide sidewalks and/<br>or shared pavement<br>space available,<br>many pedestrian<br>amenities (furniture,<br>trash cans, etc.) | River St, Savannah, GA |
| В       | Wide sidewalks with<br>extensive vertical<br>and horizontal buffer<br>from roadway,<br>wide medians with<br>clearly marked and<br>signed crosswalks,<br>street parking and<br>bike lanes create      | Charlotte, NC          |

Wide sidewalks with vertical buffer, adequate but not exemplary crosswalks, crosswalks not available at all intersections, high traffic volumes and speeds

additional buffer







Sidewalk Design, Sandy Springs, GA

| E | Narrow sidewalk with<br>no buffer, few or no<br>crosswalk locations,<br>high traffic volumes<br>and speeds, unsafe<br>conditions |
|---|--|
|   |  |

No sidewalk, lack of buffer, no crosswalk locations, high traffic volumes and speeds, extremely unsafe conditions

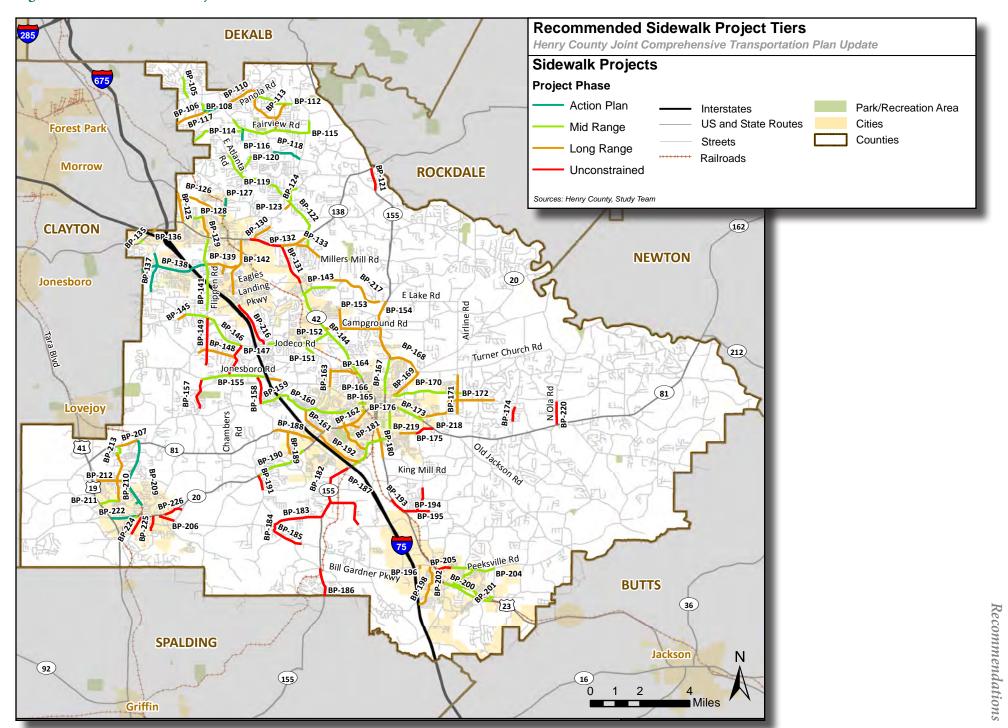


Hill Avenue, Valdosta, GA



Lawrenceville Hwy, GA

Figure 32: Tiered Sidewalk Project Recommendations



# Transportation Demand Management Recommendations

Transportation Demand Management (TDM) is a set of strategies intended to reduce reliance on single occupancy vehicle (SOV) travel. TDM strategies can include carpooling incentives and lanes, vanpool services, ridesharing, and commuter transit services. Henry County, as a residential area with a large number of long range commuters, stands to benefit greatly from the implementation of TDM strategies. Due to its low-density built environment, TDM should become a cornerstone of the County's congestion management strategy.

Table 18 displays commuting characteristics for Henry County based on 2014 American Community Survey 5-year estimates. These figures indicate that the vast majority of Henry County residents travel to work via SOV travel. Carpooling represents a significant but still small portion of total commuter travel. Public transit and alternative modes account for an extremely small portion of total commuter trips. This indicates that there is room for growth in the carpool and public transit sectors that can be supported via the TDM strategies outlined below. For further details regarding public transit recommendations for Henry County, please see the Transit section of this report.

#### **Carpooling Strategies**

The I-75 managed lanes in Henry County are scheduled to open for use during the first quarter of 2017. These lanes will provide a significant boost to travel times for carpoolers and toll users, and should be supplemented with carpool incentive policies to ensure that Henry County receives the maximum benefit from the new facility. Policies which may reduce SOV travel demand and enhance carpooling include:

- Employer-based carpooling incentives including tax benefits. Employers who utilize Commuter Choice Tax benefits can allow employees to use pre-tax income to pay for carpooling, transit, and vanpooling up to a limit of \$255.
- · Spreading awareness of Georgia Commute Options, a regional organization which provides free information, ride-matching services, and advocacy for carpooling and other alternative modes. Georgia Commute Options also works directly with employers to create carpooling incentives. Georgia Commute Options is available for contact via their website at http://www.georgiacommuteoptions.org/
- Spreading awareness of the Guaranteed Ride Home program, which provides free rental cars or taxis to carpool or vanpool users who cannot use their normal ride due to an emergency or personal need. This service is offered free up to five times per year for every commuter. Information is available at http://gacommuteoptions.com/Save-Your-Commute/Make-It-Easier/Resources-Ridematching-Guaranteed-Ride-Home-and-Transit-Route-Info/Guaranteed-Ride-Home

These strategies will enhance usage of GDOT's High Occupancy Toll (HOT) and High Occupancy Vehicle (HOV) network and improve the share of carpoolers in Henry County. Due to the residential nature of the County, carpooling may prove a critical component of a sustainable and manageable transportation network.

**Table 18: Commuter Travel Patterns, 2014 ACS Estimates** 

| Commuting Mode        | Number of Workers | Mode Share |
|-----------------------|-------------------|------------|
| Drove Alone           | 73,289            | 81.96%     |
| Carpooled             | 9,094             | 10.17%     |
| Public Transportation | 1,033             | 1.16%      |
| Other                 | 6,006             | 6.72%      |
| Total                 | 89,422            | 100.00%    |

# **Vanpooling Strategies**

Vanpools are a hybrid service with similarities to both carpools and transit services. Unlike transit services, however, they are often operated by the passengers rather than professionally employed drivers. Vanpools can be organized independently by individuals with nearby home and employment locations, by employers and their employees, or by local governments. Vans can be purchased outright or rented from vanpool vendors such as vRide.

Vanpools can make highly effective use of the upcoming HOT lanes in Henry County. They provide more flexibility than fixed route commuter transit services as they can pickup and drop off passengers at multiple locations to reduce last mile connectivity problems. Henry County should embrace vanpools and work to promote their usage among the County's workers. The following strategies should be implemented to support vanpool growth

- Employer-based vanpooling incentives including tax benefits. Employers
  who utilize Commuter Choice Tax benefits can allow employees to use
  pre-tax income to pay for carpooling, transit, and vanpooling up to a
  limit of \$255.
- Spreading awareness of Georgia Commute Options, a regional organization which provides free information, ride-matching services, and advocacy for vanpooling and other alternative modes. Georgia Commute Options also works directly with employers to create vanpooling incentives. Georgia Commute Options is available for contact via their website at http://www.georgiacommuteoptions.org/
- Spreading awareness of vRide, a vanpool provider with easy-to-use tools for ride-matching and new route creation. New vRide vanpools can be created by small groups of employees with the same or nearby employment locations. Passengers can take turns as drivers or designate a permanent driver who rides for free. More information about vRide, interactive route creation tools, and "Find a Ride" options are available at http://stage.vride.com/
- Henry County may offer tax incentives or other credits for users or corporate organizers of vanpools and alternative modes to further supplement the Commuter Choice Tax Benefit



# **Transit**

Currently, the Henry County Transit department operates demand response service for its residents. Regional fixed route service is provided by Xpress to employment destinations in Atlanta. Henry County continues to grow at a rapid rate. As the county adds population alternatives to driving will become more important. At the same time this growth will lead to increased densities that will support new forms of transit.

A concurrent Transit Feasibility Study is being completed and will be submitted as an addendum to the JCTP update. This document will fully examine the feasibility of expanding transit service in Henry County by adding services such as:

- Local Flex Route Bus
- Local Fixed Route Bus
- Long Range High Capacity Transit such as rail service
- New Regional Bus

#### **Short Term Action Plan**

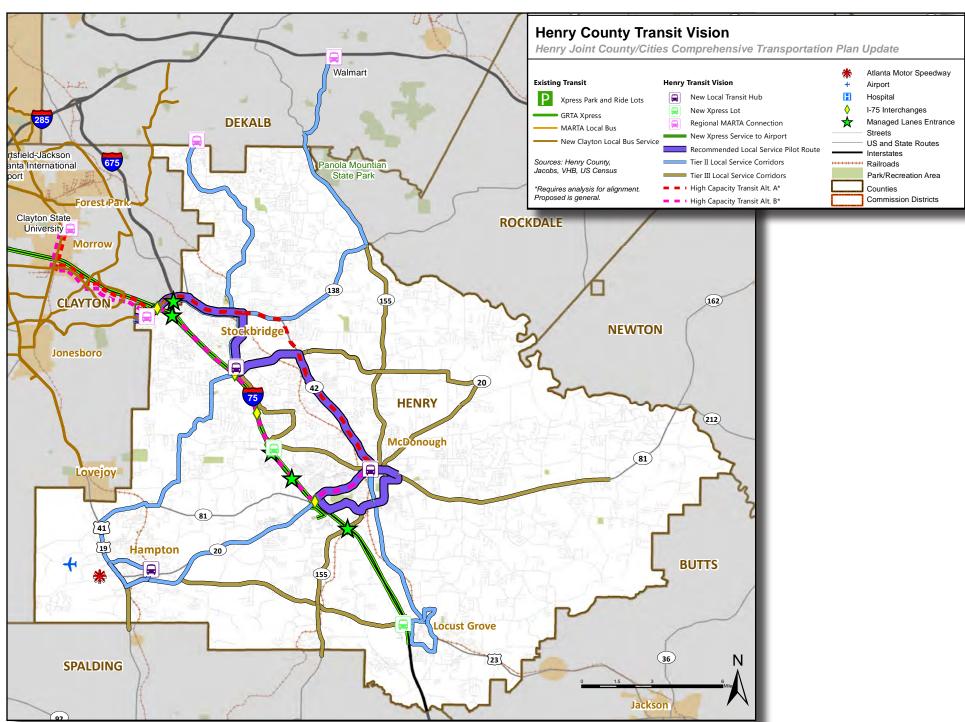
The Short Term Action Plan includes one new transit recommendation (Table 19). Project T-1 recommends a partnership with Xpress to implement new service from Henry County to Hartsfield-Jackson International Airport. This service would allow direct employment and travel access for Henry County residents. In addition, the services would provide a connection to MARTA rail. Xpress recently adopted a Comprehensive Operations Analysis which identified airport service as a goal in its Horizon II recommendations which dovetails with this recommendation. Additional coordination with Xpress will be needed.



**Table 19: Transit Projects in the Short Term Action Plan** 

| Project<br>Code | TIP | ARC ID | Name                          | Extent                | Description   | Project Cost | County Funding | Notes                   |
|-----------------|-----|--------|-------------------------------|-----------------------|---|--------------|----------------|-------------------------|
| T-1             | N   | NA     | New Xpress Service to Airport | Hartfield-Jackson AIA | Partnership with Xpress to help start new bus service. SPLOST funding could be used to buy buses, build/enhance park & ride lot, and/or Xpress southside maintenance facility | \$1,000,000  | \$1,000,000    | Partnership with Xpress |

Figure 33: Transit Vision for Henry County



# Freight Recommendations

Freight mobility is an important consideration for Henry County both in terms of roadway operations and economic development. Freight land use provides higher than average paying jobs and is a net positive for tax revenues. The county is home to one of the largest and fastest growing distribution clusters in the state of Georgia centered on the I-75 interchange with SR 155. To ensure the continued viability of this economic generator, truck operations were considered on I-75 and the ARC Regional Truck Route Network. All projects located on these corridors are considered freight projects and listed in **Table 20** and are shown in **Figure 34**.

# **Facilitating Truck Movements**

Consideration of truck movement should be given when implementing projects on the Regional Truck Route network. The physical characteristics of the roadway can help or hinder truck turning movements and the safe interaction between trucks and cars. When making improvements to the truck network the following standards should be considered.

- Shoulders Width: >= 5 feet
- Turning Radii: 75-foot right turn radius
- Lane Width: >=12 feet
- Vertical Clearance: >= 15 feet
- Turn Lane Storage Distance: 140 feet (accommodates two 65-foot tractor/truck combos)

Truck mobility standards must be weighed against the overall character of the area. For example, roads traversing a downtown area should accommodate all users of the road.

#### **Short Term Action Plan**

The following freight projects are included in the Short Term Action Plan. These projects prioritize I-75 and SR 155 which are the two most important corridors for Henry County in terms of freight mobility:

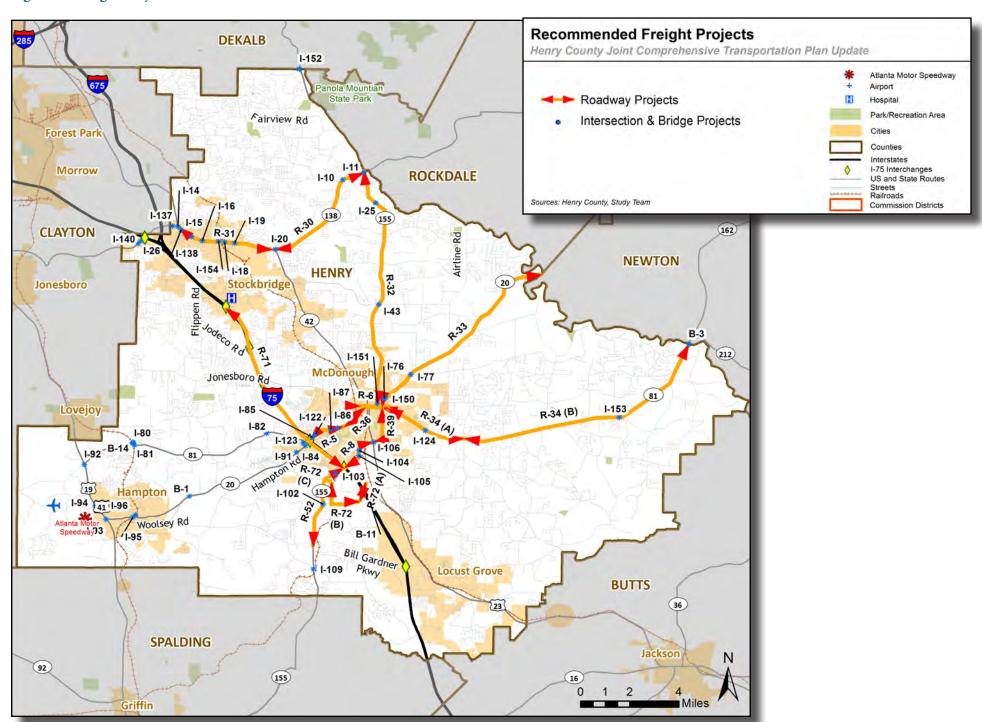
- S-1 C-D lanes feasibility study
- S-3 I-75 freight Interchange Justification Report (IJR)
- R-8 SR 155 from I-75 to SR 42
- R-52 SR 155 from I-75 to Bill Gardner
- R-34A SR 81 from downtown McDonough to Bethany Rd.
- HB 170 Truck Only Lanes

The state of Georgia announced plans to spend new revenue derived from the Transportation Funding Act. These plans include building Truck Only Lanes on I-75 between SR 155 in McDonough and Macon, GA. This project would have significant mobility impacts on the I-75 corridor. However, this project is not shown in the JCTP update because of limited available project information. The county should continue to monitor and coordinate with GDOT to ensure the project meets local goals and objectives.

Table 20: Projects of Significance to Freight in the Short Term Work Program

| Project<br>Code | TIP | ARC ID | Name  | Extent   | Description  | Project Cost | County Fund-<br>ing | Notes  |
|-----------------|-----|--------|---|--|--|--------------|---------------------|--|
| S-1             | Z   | NA     | I-75 Collector-Distributor Lanes<br>Feasibility Study | Between Eagles Landing/Hud-<br>son Bridge Road and SR 155      | Study to determine the feasibility of building collector distributor lanes along I-75 south to facilitate local trips. It will be important to coordinate with the proposed Truck Only Lanes project | \$500,000    | \$500,000           | Local project  |
| S-3             | Υ   | HE-199 | I-75 Freight Interchange IJR                          | I-75 at Bethlehem Bottoms Rd                                   | Interchange justification report to examine the possibility of adding<br>an interchange between SR 155 and Bill Gardner Pkwy   | \$5,000,000  | \$5,000,000         | Local project  |
| R-8             | Υ   | HE-113 | SR 155 WIDENING                                       | FROM I-75 SOUTH TO SR 42                                       | Adding 1 lane in each direction  | \$20,231,053 | \$                  | Fully funded in TIP  |
| R-52            | N   | NA     | SR 155 WIDENING                                       | BETWEEN BILL GARDNER<br>PARKWAY AND I-75/SR 155<br>INTERCHANGE | Primary Congestion Corridor/ Adding 1 lane in each direction. Project would include widening I-75 underpass.   | \$38,165,800 | \$7,633,160         | Project not yet funded. 20% local funding 80% federal and/or state. Coordination with GDOT needed to move project forward              |
| R-34 (A)        | Y   | HE-05  | SR 81 WIDENING  | FROM LEMON STREET TO N<br>BETHANY ROAD                         | Primary Congestion Corridor/ Adding 1 lane in each direction   | \$23,020,000 | \$4,304,000         | ROW and CST phase funding<br>not yet identified. 20% local<br>funding allocated to move<br>project forward. 80% feder-<br>ally funded. |

Figure 34: Freight Project Recommendations



# Recommendations

# Access Management Strategies and Techniques

Suburban and rural development patterns require effective access management strategies to sustain traffic flow and create a safe transportation environment. High speed suburban and rural roadways can become extremely dangerous when many driveways are present, because they create a conflict between vehicles passing through a corridor and those accessing its developments. That conflict can create a dangerous and congested environment.

Access management is a method for maintaining the roadway functional class hierarchy, where major arterials provide more throughput and local roads prioritize access. Figure 35 illustrates the relationship between throughput and access by functional class.

Access management strategies include limitation of the number of driveways, promotion of inter-parcel access, and the implementation of frontage and backage roads along major developments.

# **Driveway Management Policies**

Driveway management policies are often the first and most critical step towards effective access management. An effective driveway management policy would include driveway spacing that facilitates the safe and efficient ingress and egress of vehicles into developments. GDOT provides guidelines for driveway spacing based on the speed of the adjacent roadway, as presented in Table 21. It would also promote inter-parcel access through the development permit review process. Inter-parcel access allows vehicles to move between major developments without returning to a major arterial roadway and creating conflict points.

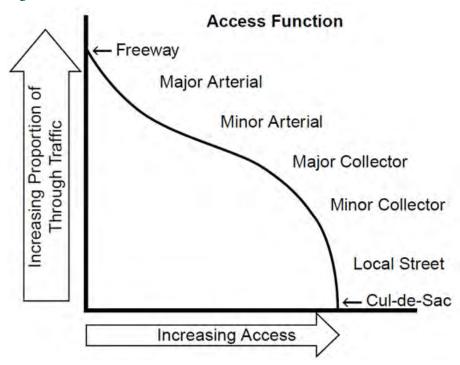
Specific driveway management strategies include:

- Reduce the number of driveways within a quarter mile of the interchange
- Reduce the number of driveways for each development
- Reduce the number of driveways servicing individual land uses
- Promote frontage roads
- Promote backage roads
- Increase interparcel connectivity
- Minimize turning radii

#### **Conflict Point Reduction Policies**

Conflict points are locations where the path of vehicles converge, creating the potential for a crash. Intersections and driveways naturally create conflict points wherever they exist. Certain design policies, however, can limit the number of conflict points created by new developments, thereby improving traffic safety.

**Figure 35: Access Function** 



Specific point-reduction strategies include:

- Construct medians or re-configure existing medians
- Promote deceleration and storage lanes at median openings
- Promote right turn deceleration lanes at major trip generators and side streets
- Restrict movement on existing full access driveways to right-in / right-out driveways
- Increase spacing between signals and interchanges
- · Manage traffic signal timing to facilitate traffic flow

# **Policies for Freight-Oriented Areas**

Freight-oriented areas require additional access management strategies to prevent conflict between heavy trucks and other vehicles. Specific strategies for freight-oriented areas include:

- Increase the width of travel lanes for larger trucks
- Right turn deceleration lanes
- Increased turning radii.
- Increased turning lane storage

**Table 21: GDOT Driveway Spacing Guidelines** 

| Posted Speed | Minimum Driveway Spaving without Right Turn Lane | Minimum Driveway Spaving with Right Turn Lane |
|--------------|--|---|
| (in mph)     | (in feet)  | (in feet)                                     |
| 25           | 125  | 125   |
| 30           | 125  | 219   |
| 35           | 150  | 244   |
| 40           | 185  | 294   |
| 45           | 230  | 369   |
| 50           | 275  | 419   |
| 55           | 350  | 444   |
| 60           | 450  | 494   |
| 65           | 550  | 550   |

- Additional signage which alert freeway exiting drivers to the lower speeds and increased freight activity in the area.
- Addition of traffic signals to minimize truck crossing at median openings or making u-turns.
- · Resolve truck queuing at median openings.
- Minimum driveway openings.
- Correct any roadway geometry issues such as the ability of large trucks to turn within the existing pavement.
- Parallel access roads
- Freight overlay zone to specifically address issues related to the higher volume of trucks on the roadways

In addition to the above strategies, the County may want to establish a proactive interchange access management policy, such as that developed for SR 20 / Bruton Smith Parkway. This type of policy would link the access management requirements to new development and/or re-development requirements. Access management elements would be evaluated during the site plan review process in an effort to preserve mobility.

For new developments, the County may want to consider having developers submit an access development plan. Extra scrutiny should be placed on developments located in close proximity to interchanges including proposed driveways. An overlay zone created specifically for each interchange type would specify the minimum design standards as well as policy guidelines.

A proactive interchange access management policy should not only link access management requirements to site plan reviews, but also ensure adequate right-of-way and/or easements are provided for inter-parcel access/connection. Developer density bonuses are one potential tool to

Table 22: Constructability of Access Management Strategies

| Strategy  | Constructability |
|---|------------------|
| Reduction of the # of Driveways   |                  |
| Reduce the # of driveways within 1/4 mile of the interchange                          | Moderate         |
| Reduce the number of driveways for each development                                   | Moderate         |
| Reduce the number of driveways servicing individual land uses                         | Moderate         |
| Promote frontage roads  | High             |
| Promote backage roads   | High             |
| Increase interparcel connectivity   | Low              |
| Minimize turning radii  | Low              |
| Reduction of the # of Conflict Points   |                  |
| Construct medians or re-configure existing medians                                    | High             |
| Promote deceleration and storage lanes at median openings                             | Moderate         |
| Promote right turn deceleration lanes at major trip generators and side streets       | Low              |
| Restrict movement on existing full access driveways to right-in / right-out driveways | Low              |
| Increase spacing between signals and interchanges                                     | High             |
| Manage traffic signal timing to facilitate traffic flow                               | Low              |
| Considerations for Areas With High Volumes of Trucks                                  |                  |
| Increase the width of travel lanes for larger trucks                                  | Low              |
| Promote right turn deceleration lanes at major trip generators and side streets       | Low              |
| Increase turning radii  | Low              |
| Increase turning lane storage   | Low              |
| Add signage to alert drivers to lower speeds / freight activity                       | Low              |
| Addition of traffic signals to minimize truck crossing at median openings             | Moderate         |
| Resolve truck queuing at median openings  | Moderate         |
| Minimize driveway openings  | Moderate         |
| Correct roadway geometry issues   | High             |
| Construct parallel access roads   | High             |
| Create a freight overlay zone to address issues related to higher volumes of trucks   | Low              |

serve as a "carrot" for developers to allows and promote inter-parcel connections.

**Table 22** identifies the access management strategies based on the level of constructability for each, primarily the time and cost for implementation.

# Interchange Area Development Plan (IADP) Recommendations

The Henry County IADPs focus on three interchange area types: Jonesboro Road as an emerging commercial area, Bill Gardner Parkway as an established commercial area, and SR 155 as a freight area.

#### **IADPs and Access Management**

The increase in development at Henry County interchanges has created congestion bottlenecks. The increase in freight activity at the interchanges has caused an increase in the number of crashes, especially truck/vehicle incidents.

The access management standards presented in the previous section can be applied to the three IADP interchange types: Emerging Commercial, Freight, and Established Commercial. Table 23 illustrates the effectiveness, or potential for greatest benefit afforded by the three access management strategy packages compared to each interchange type.

Within established commercial interchange areas, access management strategies for reducing driveways and the adequate management of truck traffic will be the most effective to preserve mobility. Driveway and intersection reduction, primarily in close proximity to the interchange ramps will prevent traffic flow interruptions from both controlled and uncontrolled driveways. Driveway reduction will also minimize vehicles illegally blocking intersections due to down road queuing.

Within freight interchange areas, such as SR 155, access management strategies focused on the management of truck traffic are most critical to preserve mobility. Though freight facilities and the railroad constrain the right of way near the interchange, access to the adjacent freight facilities are via other roadways. The result is that parcels with access to SR 155 close to the interchange are largely highway commercial. Competing with traffic accessing these commercial uses are the vast volumes of trucks related to the surrounding industrial uses.

As mentioned previously, truck traffic management should be focused upon providing adequate lane widths, turning radii, turn length bay lengths, provisions for U-turns as well as passing lanes for roadways with grade challenges. Adequate site plan provisions for trucks, such as parking supply

Table 23: Access Management Strategy by IADP Type

|                        | Access Management Strategy Package |  |   |  |  |
|------------------------|------------------------------------|--|---|--|--|
| Interchange Type       | Reduction of the # of<br>Driveways | Reduction of the # of Conflict<br>Points | Considerations for Areas With<br>High Volumes of Trucks |  |  |
| Emerging Commercial    | Low                                | Low                                      | Moderate  |  |  |
| Freight                | High                               | High                                     | High  |  |  |
| Established Commercial | High                               | Moderate                                 | High  |  |  |

and provisions for turn-arounds will also provide benefits for main-line traffic operation. For freight corridors serving truck intensive land uses (such as warehousing and distribution centers, site access to gated facilities and policy provisions for overnight parking should also be considered to prevent trucks from parking on the side of roads, and in other non-controlled locations.

# **Interchange Type: Emerging Commercial - Jonesboro Road**

#### Intersection Improvements

The intersections at the Jonesboro Road interchange show congestion (according to HERE) and safety needs. The southbound ramp interchange will be addressed by the Jonesboro Road widening to the west.

The northbound ramp intersection currently has two northbound left turn lanes and a right turn lane on the off-ramp to Jonesboro Road westbound, a single right turn lane from Jonesboro Road westbound to the I-75 northbound onramp, and a single left turn lane from Jonesboro Road eastbound onto the I-75 northbound entrance ramp. The northbound entrance ramp already receives traffic from Jonesboro Road on two lanes, which merge into a single lane at the end of the ramp.

With the existing four lane cross-section on Jonesboro Road (six lanes on the bridge, with a turn lane in each direction), the addition of turn lane improvements at this intersection are not possible without major reconstruction of the bridge. The operational performance of the intersection will need to be managed to the extent possible through access management, signal timing, etc.

Another possible solution would be a diverging diamond interchange (DDI). However, impacts of such change of interchange type on access management should be considered.

The SR 20 interchange is another emerging commercial interchange area. It has an intersection improvement need at the southbound ramp intersection that is not anticipated to be improved by another roadway project. The volume of traffic on this section of GA 20 is very heavy, having received both GA-81 and GA-20 from the west and connecting to the Interstate and McDonough to the east. The intersection at the northbound ramps will be improved with the SR 20 widening from I-75 toward McDonough.

# Coordination with Roadway Projects

The JCTP recommendations contain roadway capacity projects widening Jonesboro Road both east and west of the interchange. The project to the west of the interchange will widen Jonesboro Road from two to four lanes extending from I-75 to US 19/41 in Clayton County. This project is advancing in the near term and provides an excellent opportunity to apply access management techniques such as minimum driveway spacing and

median installation. According to the 2008 Concept Report, in addition to the widening from two to four lanes west of Mill Road, near the Interstate the project will involve restriping, the addition of turn lanes on the southbound exit ramp, and auxiliary lanes between Mill Road and I-75.

Also included in the JCTP recommendations are additional connectivity and roadway bridges across I-75. These supplemental connections will help ease pressure on the interchange areas by providing additional route options. The only new bridge that will impact the Jonesboro Road interchange area is south of Jonesboro Road that will extend Bridges Road from the vicinity of Willow Lane on the east side of across I-75 to Mill Road and SR 81. Though primarily relieving the SR 20/81 interchange area including traffic between the City of McDonough and SR 81 west, this project will also ease east-west traffic through the Jonesboro Road at I-75 interchange area.

The Jonesboro Road interchange is along the portion of I-75 spanned by the recommended collector-distributor (C-D) lanes. While greatly improving flow along the Interstate, the C-D lanes will not sustainably impact the interchange areas. The proposed design of the C-D system is to tie into the existing entrance and exit ramps. The C-D lanes would ease through movements on the Interstate mainline and entering/exiting movements to/from the mainline and the ramps. Once on the ramps, traffic would still utilize existing or future intersections. Right-of-way for the C-D system is anticipated to be within the existing state/Interstate right of way.

# **Interchange Type: Established Commercial - Bill Gardner Parkway**

# Intersection Improvements

According to the HERE data, one of the congested links at the Bill Gardner Parkway interchange is the northbound off ramp. The ramp currently has one left turn lane and one right turn lane. The commercial centers on the east side of the Interstate likely attract the majority of vehicles utilizing the ramp. A second right turn lane could help alleviate the delay currently experienced on the ramp. Capacity on Bill Gardner Parkway east of the interchange is sufficient to receive the two turn lanes. However, capacity constraints relative to the demand on this segment could inhibit the ability of the roadway to absorb the additional flow enabled by the second right turn lane.

#### Coordination with Roadway Projects

Bill Gardner Parkway widenings are recommended on both the east and west of the interchange. The widenings not anticipated for near term implementation.

The recommendations include additional connectivity and roadway linkages across I-75. These supplemental links will help ease pressure on

the interchange areas. A new 1-75 interchange is proposed at Bethlehem Road to the north of Bill Gardner Parkway. The interchange is unlikely to substantially reduce the commercial traffic utilizing Bill Gardner Parkway.

# Interchange Type: Freight - SR 155

#### **Intersection Improvements**

The SR 155 interchange is very congested according both HERE and INRIX data. The northbound ramp intersection will be addressed as part of the widening of SR 155 from I-75 to McDonough. The remaining need is at the southbound ramp intersection. The intersection's performance is largely limited by the capacity of SR 155 through the interchange area. Current laneage is insufficient to receive traffic from additional turn lanes.

#### Coordination Roadway Projects

Roadway widenings are recommended on SR 155 both north and south of the interchange. The SR 155 widening to the north of the interchange is one of the highest priority roadway projects in the County. This high volume facility serves a critical link between I-75 and McDonough and the adjacent industrial, commercial, and residential uses. The widening of SR 155 south of the interchange also ranks highly in the project prioritization and serves an even more important and overburdened freight link in the network.

The recommendations include additional connectivity and roadway linkages across I-75. These supplemental links will help ease pressure on the interchange areas. To the south of SR 155, a new interchange is proposed to access I-75 at Bethlehem Road. This interchange would help relieve pressure on the SR 155 interchange. Many of the industrial facilities currently using the SR 155 interchange are located south of the SR 155 interchange and would be well served by the new Bethlehem Road interchange. The development of more industrial facilities in this southern area is also anticipated, which will further be served by the new interchange.

Another series of recommended roadway connections is a Westbridge Parkway connector, which would bridge I-75 south of SR 155 but north of Bethlehem Road. The connector would link SR 155 and US 23 / SR 42 via Greenwood Road on the west and King Mill Road on the east.

A final related roadway project links Henry Parkway at Industrial Boulevard on the northeast of I-75 and Industrial Parkway at Avalon Parkway on the southwest of I-75. This road could serve trips related to residential, commercial, and governmental uses that are currently forced through the SR 155 or SR 20 interchange areas.

The Short Term Action Plan (2016-2021) is made up of the projects to be undertaken, in whole or in part, in Henry County over the next five years (**Table 24**). Most of the new roadway and roadway widening projects included in the Short Term Action Plan are currently listed in the ARC's Transportation Improbement Program (TIP), and did not originate from this JCTP. Those currently programmed projects have been joined in this Short Term Action Plan by recommendations for a several new major investments in the roadway

**Table 24: Short Term Action Plan Projects by Type** 

network, as well as some locally-funded active transportation projects, a roadway safety project, intersection operations projects, and potential new transit service.

The Short Term Action Plan also includes recommendations for studies. The JCTP recommends both a new interchange and collector-distributor lanes on I-75. Proposed changes to the Interstate System must be approved by the Federal Highway Administration (FHWA), and the Short Term Action Plan includes funds for the studies that will move those projects forward. Second, a Greenways Master Plan is recommended to more fully explore the opportunities for a trail network in Henry County.

Table continued on page 78

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|-----------------|---------|--------------|---|--|--|-----------------|------------------------------|--|
| Project<br>Code | TIP     | ARC ID       | Name  | Extent   | Description  | Project<br>Cost | County Funding               | Notes  |
| New Roads       |         |              |   |  |  |                 |                              |  |
| R-78            | N       | NA           | MCDONOUGH PARKWAY EXTENSION (MCDONOUGH BYPASS): PHASE II  | FROM SR 155 (DECATUR ROAD) TO SR 20 (CONYERS HIGHWAY / LAWRENCEVILLE STREET)         | Paving Turner Church road as a two lane rural section  | \$1,802,000     | Fully funded in<br>SPLOST IV | Fully funded in SPLOST IV  |
| R-2             | Υ       | HE-179       | WESTERN PARALLEL CONNECTOR -<br>NEW ALIGNMENT   | FROM JONESBORO ROAD TO HUDSON<br>BRIDGE ROAD   | New 2 lane roadway   | \$16,950,000    |                              |  |
| R-1             | Y       | HE-118B      | MCDONOUGH PARKWAY EXTENSION<br>(MCDONOUGH BYPASS): PHASE II -<br>NEW ALIGNMENT  | FROM US 23 (ATLANTA STREET) TO SR 155 (DECATUR ROAD)                                 | New 4 lane roadway   | \$5,700,000     | \$5,700,000                  | Fully funded in SPLOST IV  |
| R-27            | Y       | HE-118E      | MCDONOUGH PKWY EXTENSION (MC-<br>DONOUGH BYPASS): PHASE IV - NEW<br>ALIGNMENT   | FROM SR 20/81 (HAMPTON STREET) TO HENRY PARKWAY                                      | New 4 lane roadway   | \$25,000,000    | \$25,000,000                 | Fully funded in SPLOST IV  |
| Road Wide       | nings   |              |   |  |  |                 |                              |  |
| R-8             | Y       | HE-113       | SR 155 WIDENING   | FROM I-75 SOUTH TO SR 42   | Adding 1 lane in each direction  | \$20,231,053    | \$-                          | Fully funded in TIP  |
| R-5             | Υ       | HE-020A      | SR 20/81 (HAMPTON STREET): SEG-<br>MENT 1 - NEW ALIGNMENT   | FROM EAST OF I-75 SOUTH TO PHILLIPS DRIVE  | Adding 1 lane in each direction  | \$15,572,828    | \$1,590,000                  | Fully funded in TIP  |
| R-52            | N       | NA           | SR 155 WIDENING   | BETWEEN BILL GARDNER PARKWAY AND I-75/<br>SR 155 INTERCHANGE                         | Primary Congestion Corridor/ Adding<br>1 Iane in each direction. Project would<br>include widening I-75 underpass. | \$38,165,800    | \$7,633,160                  | Project not yet funded. 20% local<br>funding 80% federal and/or state.<br>Coordination with GDOT needed to<br>move project forward   |
| R-10            | Y       | HE-920B      | SR 920 (MCDONOUGH ROAD /<br>JONESBORO ROAD) WIDENING  | FROM US 19/41 (TARA BOULEVARD) IN<br>CLAYTON COUNTY TO 1-75 SOUTH IN HENRY<br>COUNTY | Adding one lane in each direction  | \$74,079,949    | \$-                          | Fully funded in TIP  |
| R-7             | Y       | HE-107       | US 23 WIDENING  | FROM DOWNTOWN MCDONOUGH TO SR<br>138 (NORTH HENRY BOULEVARD)                         | Adding 1 lane in each direction  | \$90,304,371    | \$12,466,039                 | UTL and Construction phase funding<br>not yet identified. 20% local match<br>allocated to keep project moving<br>forward and/or fully fund "Main<br>Street Henry" concept. |
| R-6             | Y       | HE-020B      | SR 20/81 (HAMPTON STREET / KEYS<br>FERRY ROAD) - EXTENSION AND UP-<br>GRADE OF ONE-WAY PAIR THROUGH<br>DOWNTOWN MCDONOUGH | FROM WEST OF NORFOLK SOUTHERN RAIL<br>LINE TO EAST OF LEMON STREET                   | Adding 1 lane in each direction  | \$8,200,035     | \$-                          | Fully funded in TIP  |
| R-34 (A)        | Y       | HE-05        | SR 81 WIDENING  | FROM LEMON STREET TO N BETHANY ROAD  | Primary Congestion Corridor/ Adding 1<br>lane in each direction  | \$23,020,000    | \$4,304,000                  | ROW and CST phase funding not<br>yet identified. 20% local funding<br>allocated to move project forward.<br>80% federally funded.  |
| R-9             | Y       | HE-161A      | ROCK QUARRY ROAD WIDENING   | FROM EAGLES LANDING PARKWAY TO SR 138  | Adding 1 lane in each direction  | \$32,981,200    | \$31,781,200                 | Funding available in SPLOST IV   |
| Safety and      | Operati | onal Roadway | y Protects  |  |  |                 |                              |  |
| R-49 (A)        | N       | NA           | CHAMBERS ROAD   | BETWEEN JODECO ROAD AND SR 81  | Connectivity   | \$6,106,332     | \$6,106,332                  | Local project  |
|                 | _       |              |   |  |  |                 |                              |  |

Recommendations

Table 24, Continued: Short Term Action Plan Projects by Type

|                 |          |        |   | 2)00000 27 27 P 0   |  |                 |                |  |
|-----------------|----------|--------|---|---|--|-----------------|----------------|--|
| Project<br>Code | TIP      | ARC ID | Name  | Extent  | Description  | Project<br>Cost | County Funding | Notes  |
| Active Trans    | portatio | n      |   |   |  |                 |                |  |
| MU-67           | Ν        | NA     |   |   | Multi-use greenway trail   | \$11,980,207    | \$200,000      | PE phase only funding in short term action plan  |
|                 | N        | NA     | Sidewalk Program  | Countywide  | Sidewalk program to be funded at \$5 million per year.   | \$10,000,000    | \$10,000,000   | Locally funded program   |
| BP-208          | N        | NA     | Central Avenue  | Between College Street and W Main Street                    | Adding sidewalks and crosswalks on both sides of street.   | \$94,329        |                | Sidewalk Program   |
| BP-138          | N        | NA     | Walt Stephens Road                                      | Between Henry County-Clayton County border and Flippen Road | Adding sidewalks and crosswalks on both sides of street.   | \$1,985,108     |                | Sidewalk Program   |
| BP-222          | N        | NA     | Woolsey Road  | Between US 19/41 and West Main Street                       | Adding sidewalks and crosswalks on both sides of street.   | \$771,977       |                | Sidewalk Program   |
| BP-107          | N        | NA     | Fairview Road   | Between Clark Drive and Panola Road                         | Adding sidewalks and crosswalks on both sides of street.   | \$605,421       |                | Sidewalk Program   |
| BP-116          | N        | NA     | Thurman Road  | Between Fairview Road and Barber Drive                      | Adding sidewalks and crosswalks on both sides of street.   | \$411,373       |                | Sidewalk Program   |
| BP-118          | N        | NA     | Gardner Road  | Between Patillo Road and Swan Lake Road                     | Adding sidewalks and crosswalks on both sides of street.   | \$865,010       |                | Sidewalk Program   |
| BP-127          | Ν        | NA     | E Atlanta Road  | Between Stagecoach Road and Valley Hill Road                | Adding sidewalks and crosswalks on both sides of street.   | \$644,936       |                | Sidewalk Program   |
| BP-137          | N        | NA     | Speer Road/Blackhall Road                               | Between Old Speer Road and Elderberry Road                  | Adding sidewalks and crosswalks on both sides of street.   | \$1,394,287     |                | Sidewalk Program   |
| BP-144          | N        | NA     | SR 42   | Between Kensington Trce and Huntington Drive                | Adding sidewalks and crosswalks on both sides of street.   | \$3,474,570     |                | Sidewalk Program   |
| BP-209          | N        | NA     | Old Highway 3/Main Street                               | Between SR 81 and Emory Street                              | Adding sidewalks and crosswalks on both sides of street.   | \$2,412,992     |                | Sidewalk Program   |
| Intersections   | S        |        |   |   |  |                 |                |  |
| I-81            | N        | NA     | SR 81 @ Old Hwy 3                                       | SR 81 @ Old Hwy 3   | Short term improvement - WB right-turn lane  | \$514,250       | \$514,250      | Local project  |
| I-84            | N        | NA     | SR 20 @ SR 81   | SR 20 @ SR 81   | Add second SB Left-turn lane   | \$660,000       | \$660,000      | Local project  |
| Transit         |          |        |   |   |  |                 |                |  |
| T-1             | N        | NA     | New Xpress Service to Airport                           | Between Henry County and Hartfield-Jackson<br>AIA           | Partnership with Xpress to help start new bus service.   | \$1,000,000     | \$1,000,000    | Partnership with Xpress. SPLOST<br>funding could be used to buy buses,<br>build/enhance park & ride lot, and/<br>or Xpress southside maintenance<br>facility |
| Studies         |          |        |   |   |  |                 |                |  |
| S-1             | N        | NA     | I-75 Collector-Distributor Lanes Feasibil-<br>ity Study | Between Eagles Landing/Hudson Bridge Road and SR 155        | Study to determine the feasibility of<br>building collector distributor lanes along<br>I-75 south to facilitate local trips. It will be<br>important to coordinate with the proposed<br>Truck Only Lanes project | \$500,000       | \$500,000      | Local project  |
| S-2             | N        | NA     | Greenway Trail Master Plan                              | Entire County   | Study to drill down specifically on greenway trails alingments, feasibility, and costs.  | \$125,000       | \$125,000      | Local project  |
| S-3             | Y        | HE-199 | I-75 Freight Interchange IJR                            | I-75 at Bethlehem Bottoms Rd                                | Interchange justification report to examine the possibility of adding an interchange between SR 155 and Bill Gardner Pkwy.   | \$5,000,000     | \$5,000,000    | Local project  |
| S-4             | N        | NA     | SR-155 Interchange Modification Report                  | SR-155 @ I-75   | Interchange modification report to determine the possibility of modifying the interchange to allow the widenin of SR 155 to four lanes.  | \$325,000       | \$325,000      | Local project  |

# **Implementation**

In addition to recommendations for new physical infrastructure, the following policy recommendations have been identified for implementation.

- Street Framework/Development Review A number of new roadway recommendations have been identified. These have been compiled and displayed in a New Street Framework map. The New Street Framework should be adopted as part of the One Henry Comprehensive Plan. During development review this map should be referenced. If the proposed development coincides with a new street recommendation the development should incorporate it into its design. This could be done at a minimum by reserving/donating right-of-way and at best by constructing the roadway through the limits of the development.
- Regional Transportation Plan (RTP) Clean Up There are a number of legacy Henry County projects in the ARC RTP. These long range projects have no federal, state, or county funds attached to them and have not been identified through this plan's analysis. It is recommended to work with ARC to amend the RTP. The following projects should be removed:
  - \* HE-134C
  - \* HE-137
  - \* HE-138
  - \* HE-139
  - \* HE-140
  - \* HE-141

The Following projects should be amended:

- \* HE-113 Change project description to read "From I-75 south to SR 42/US 23"
- \* HE-134B and 134C These projects are now being recommended as operational improvements instead of widenings. Because they have no federal funding and are not adding capacity they can be removed from the RTP list.
- Funding/Implementation Partnerships Traditionally, Henry County has chosen to allocate local funds to local roads, leaving state routes to GDOT. Due to their importance, it is recommended that the county pursue funding partnerships with GDOT to improve state routes within the county. Local funding participation is a proved method of moving state projects forward in the work plan. It is also an excellent way to leverage local funds and bring additional state and federal resources to the county.

Likewise, the county should explore partnerships with regional transit services such as Xpress and MARTA to implement new transit service in the county. Particularly, the county should continue the coordination begun during this planning process with Xpress to implement new airport service

- Henry County DOT Currently, transportation services are provided at the county level through four separate departments: Henry DOT, SPLOST, Planning and Zoning, and Henry County Transit. This current arrangement does not maximize collaboration and efficiency. It is recommended that these services be consolidated within one Henry County Department of Transportation. This would include new transportation planning staff. Benefits would include administrative efficiencies, enhanced communication and coordination, and increased implementation rates. Transportation planning staff and planning and zoning staff should coordinate on a regular basis to discuss transportation and land use issues/initiatives.
- Healthy Henry Throughout the planning process for the JCTP Update, interest in Active Transportation infrastructure has been prevalent from citizens, stakeholders, and city and county staff and elected leadership. It is recommended that the county pursue and multi-disciplinary partnership between SPLOST, Henry County Parks & Recreation, Henry DOT, Planning & Zoning, the Cities, Henry County Schools, and the Chamber of Commerce to promote health through investment in healthy programs and infrastructure. A "Healthy Henry" campaign could rally support around healthy infrastructure like:
  - Greenway Trails
  - Sidepaths
  - Sidewalks
  - Bicycle Lanes
  - Sports Complexes
  - Parks
  - Forest Preserve
  - Open Space
  - Nature Trails
  - Safe Routes to School

In addition to health benefits, Active Transportation infrastructure has positive impacts on quality of life, economic development, and environmental stewardship. In particular, linking the implementation of greenway trails, parks, and safe routes to school have the best options for synergy.