

# Existing Conditions Summary

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## Summary of Existing Conditions

This section summarizes the information presented in greater detail in the separate Existing Conditions Report.

### Land Use and Development Characteristics

A comparison of future land use designations with existing land uses indicates three major development changes planned for Henry County:

- Wide expansion in single-family residential development
- Major industrial growth
- Significant increase in commercial development along the I-75 corridor

The Future Land Use Plan shows an almost complete residential build-out of the county. This would require the development of all existing agriculture-forestry-open space land uses which currently comprises 45.6 percent of the county. If this widespread residential development were to occur it would have major impacts on the county's transportation network, particularly in the eastern portion of the county which is served by a limited network of two-lane roadways.

The Future Land Use Plan indicates significant industrial growth at the industrial area south of McDonough, the Stockbridge industrial area and Hampton area. If proposed expansions are realized in these areas accommodations for significant increases in truck traffic may be required.

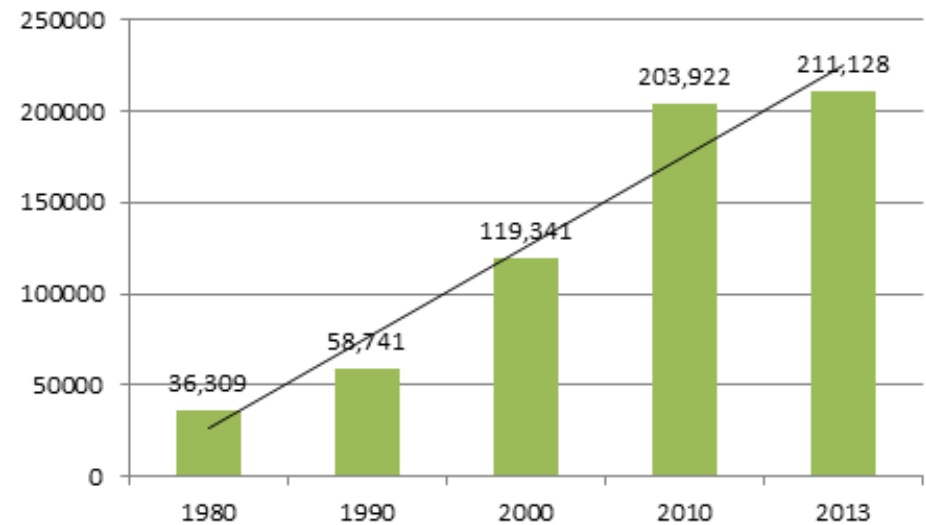
The expansion of existing commercial areas are indicated on the Future Land Use Plan for the SR 138, Eagles Landing Parkway, Jodeco Road, Jonesboro Road, SR 20, and Bill Gardner Parkway exits on I-75. These interchange areas currently exhibit some of the highest congestion levels within the county. Additional commercial developments at these exits will likely contribute to congestion on adjacent roadways. Effective access management techniques will be needed in these areas to help mitigate the traffic impacts of additional development.

### Population

According to the US Census' American Community Survey (ACS), Henry County's population in 2013 was 206,349 and made up just 3.8 percent of the Atlanta Metropolitan Statistical Area (MSA) population of 5,379,176.

Henry County's population density, 632 persons per square mile, is roughly equivalent to the MSA average of 634 persons per square mile. Areas of higher-than-average population density in Henry County lie closer to the region's interior, near DeKalb County and Clayton County, and extend south along I-75 through McDonough.

Figure 3: Henry County Population Growth, 1980-2013



Based on US Census population estimates, which differ slightly from the ACS population estimates, the population of Henry County more than quadrupled from 1980 to 2013, from 36,309 people to 211,128 people (Figure 3).

In a regional context, Henry County is transitioning from a more exurban area to a suburban area. Figure 4 places Henry County in the context of the region. The need for greater mobility and connectivity, both intra-county and regionally, is greater with more intense densities for residential and business development.

### Employment

Four job sectors combined provide more than half of the jobs in Henry County:

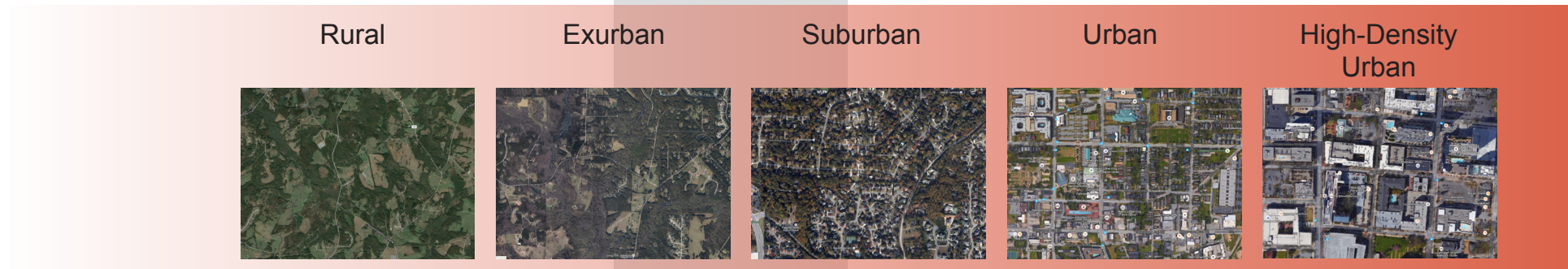
- Retail Trade (18.5 percent)
- Education (13.9 percent)
- Accommodation and Food Service (12.3 percent)
- Health and Social Assistance (12.1 percent)

Nearly all the top private employers in Henry County are involved with manufacturing, warehousing and distribution, or logistics. These employers are drawn to Henry County's location near both Hartsfield-Jackson Atlanta International Airport (H-JAIA) and I-75, which allows for easy movement of freight from warehouses in the county.

Figure 4: The Spectrum of Density across the Atlanta Region

# The Spectrum of Density in the Atlanta Region

**Henry County:**  
 632 people per square mile  
 212 households per square mile  
 321 jobs per square mile



Densities:	Barrow County	Fayette County	Cobb County	DeKalb County	Midtown Atlanta
Population	429 people per square mile	537 people per square mile	2030 people per square mile	2583 people per square mile	3747 people per square mile
Household	144 households per square mile	421 households per square mile	758 households per square mile	975 households per square mile	2584 households per square mile
Employment	219 jobs per square mile	271 jobs per square mile	1134 jobs per square mile	1416 jobs per square mile	17,178 jobs per square mile

County data source: ACS 2013 five-year estimates, Midtown data is for 2014, source: Midtown Alliance  
 Images: Google Earth

## Roadway Inventory Findings

The roadway system is the backbone of Henry County’s transportation system. The majority of the roadways in the county are two lanes. The four-lane roads include portions of SR138, portions of SR 20, portions of Jonesboro Road, and US 19/41. I-75 is the only six-lane facility in the county.

Traffic signals are primarily found on Hudson Bridge Road/Eagles Landing Parkway and in the vicinity of Fairview Road and Panola Road and distributed along state routes and Jonesboro Road.

## Origins and Destinations

In 2013, approximately 57 percent of the workers in Henry County were employed outside of the county, 27 percent lived outside the county but worked in the county and 16 percent lived and worked in the county. Sixty-one percent of Henry County’s workers were from Henry County itself.

More than half of Henry County’s daily person trips both started and ended within the county. Most trips from outside Henry County came from Clayton County, followed by DeKalb, Newton, and Spalding counties.

Approximately 45,000 daily person trips flowed from Henry County to Fulton County including travel to downtown and Midtown Atlanta. South Dekalb County, north Clayton County and south Clayton County each had more than 15,000 daily person trips from Henry County. There were more than 10,000 daily person trips flowing from Henry County to north Spalding County.

## Traffic Volumes

I-75 and I-675 carry the heaviest traffic volumes through the county. US-19/41, SR 20 between I-75 and US 19/41, Jonesboro Road between McDonough and I-75, Eagles Landing Parkway, and SR 138 toward the west also carry high volumes.


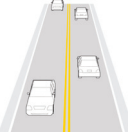
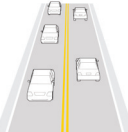
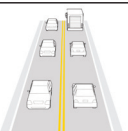
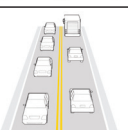
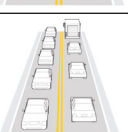
## Level of Service

The performance metric used for the future congestion level of service (LOS) is the modeled volume-to-capacity ratio (V/C). LOS provides an indication of traffic conditions. Level of Service conditions are presented in **Figure 5**. LOS ranges from A, representing unrestricted flow, to F, representing the heaviest congestion.

Several roadway segments were projected to operate at LOS D or worse during the peak periods (although LOS E is the standard in the Atlanta region), as shown in **Figure 6**. The most congested portions include:

- I-75 north of Jonesboro Road

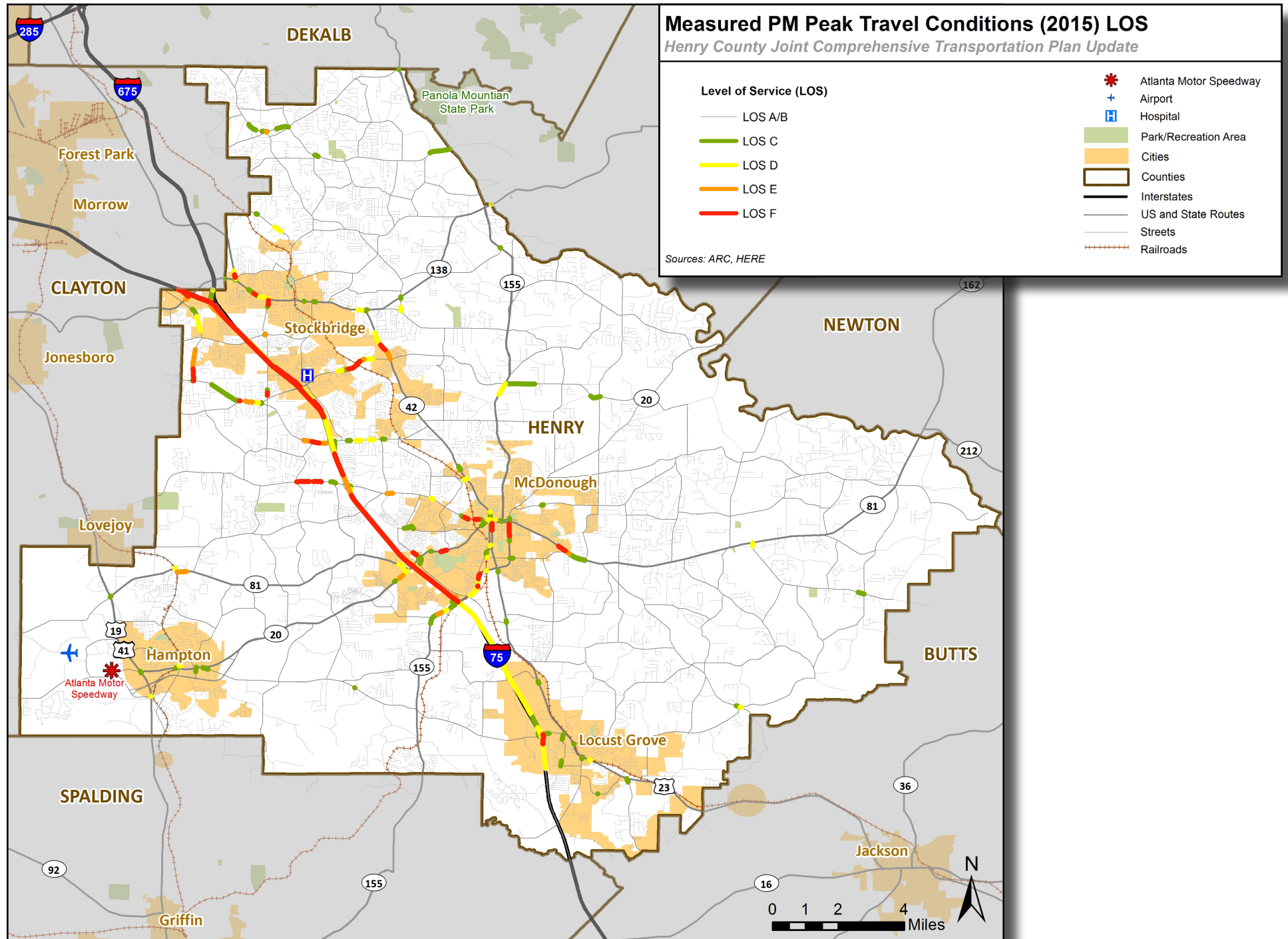
Figure 5: Level of Service (LOS) on Two-Lane Highways

LEVELS OF SERVICE for Two-Lane Highways		
Level of Service	Flow Conditions	Technical Descriptions
<b>A</b>		Highest quality of service. Free traffic flow with few restrictions on maneuverability or speed. <b>No delays</b>
<b>B</b>		Stable traffic flow. Speed becoming slightly restricted. Low restriction on maneuverability. <b>No delays</b>
<b>C</b>		Stable traffic flow, but less freedom to select speed, change lanes, or pass. <b>Minimal delays</b>
<b>D</b>		Traffic flow becoming unstable. Speeds subject to sudden change. Passing is difficult. <b>Minimal delays</b>
<b>E</b>		Unstable traffic flow. Speeds change quickly and maneuverability is low. <b>Significant delays</b>
<b>F</b>		Heavily congested traffic. Demand exceeds capacity and speeds vary greatly. <b>Considerable delays</b>

- Downtown McDonough
- Near I-75 on SR 155, SR 20/81, and Jonesboro Road
- Jodeco Road at Hudson Bridge Road
- SR 138 at SR 42

Measured travel time data provides another data source to crosscheck the

Figure 6: Measures 2015 PM Peak Level of Service from HERE Data



existing conditions of the county's roads. ARC provided data from HERE, which collects anonymized speed data from cellphones traveling throughout the roadway network. Many of the congested locations identified by the model also had lower observed LOS. A few distinctions apparent with this different data source include:

- LOS D on I-75 south of SR 155 in the afternoon peak.
- Congestion in downtown McDonough is worse in the morning than the afternoon peak.
- The localized queuing nature of congestion (e.g., SR 81 east of McDonough in the morning).

### Maintenance

There are a number of unpaved roads in the County, primarily found adjacent to Newton, Butts and Spalding Counties. A total 22 percent of the 1,140 miles of Henry County roadway is classified to be in "poor" physical condition. Pavement rehabilitation costs increase with lower pavement condition ratings, due to worsening physical conditions require more rehabilitation, with increased labor and material costs. Therefore, there is an advantage to maintaining more roads in a state of good repair.

### Bridge Inventory and Conditions

According to the National Bridge Inventory (NBI) database maintained by the FHWA, there are 135 bridges in Henry County that are federally, state, and locally owned. Two County-owned bridges have been identified as structurally deficient, and nine bridges have been identified as functionally obsolete. A structurally deficient bridge is one where at least one structural defect has been identified. A functionally obsolete bridge "is no longer by design functionally adequate for its task."

### Safety

GDOT crash data reveal that Henry County experiences a significant number of crashes, including severe and fatal crashes. Crash rates increased from 284 per 100 million VMT in 2008 to 331 per 100 million VMT in 2012, a reflection of the county's increasing density, urbanization, and congestion. Crash rates generally paralleled regional rates, but tended to be slightly lower. However, fatality rates were significantly higher than regional rates, which indicates safety hazards such as high speeds and complex or under-protected intersections. Overall, fatality rates declined from 1.51 in 2008 to 0.99 in 2012, indicating a drop in travel speeds and increase in operational improvements. Henry County's crash and fatality rates from 2008 to 2012 are illustrated in **Figure 7** and **Figure 8** in comparison with Atlanta regional rates.

Figure 7: Henry County Crash Rates, 2008 – 2012

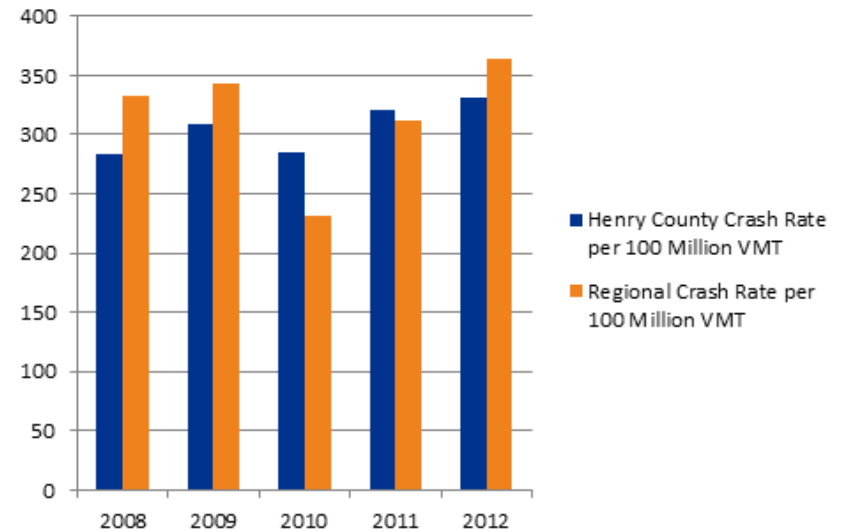
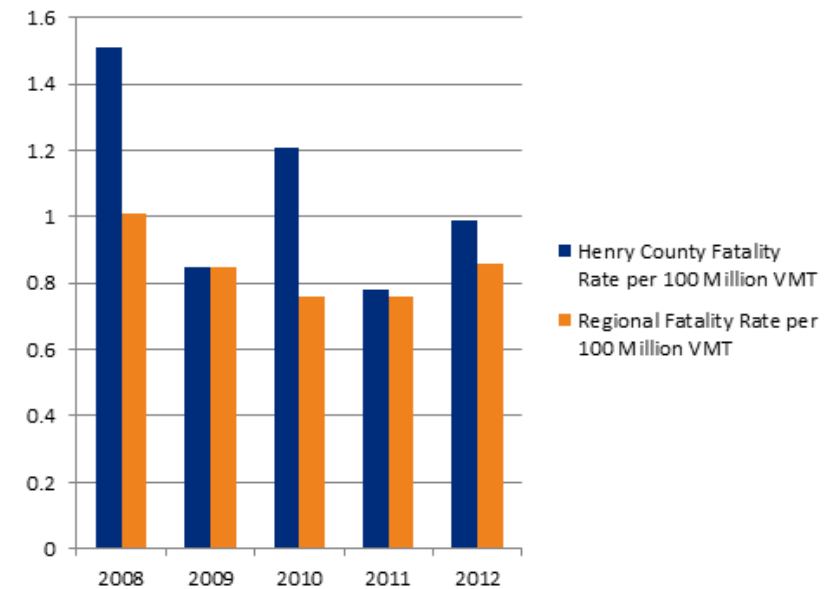


Figure 8: Henry County Fatality Rates, 2008 – 2012



Key findings from a spatial analysis of Henry County crashes include:

- A concentration of crashes at all I-75 access points in Henry County.
- A concentration of crashes in central Stockbridge and McDonough.
- High crash rates on corridors which provide access between I-75 and major activity centers.
- Elevated crash severity along high-speed, rural routes, such as SR 81, SR 20, and SR 138.
- A concentration of fatalities at locations with high densities of access points (driveways) from popular developments which empty onto major arterial routes, such as North Henry Boulevard, Jonesboro Road, Eagles Landing Parkway, and Hampton Road.

These findings indicate three main themes regarding roadway safety in Henry County:

- The high number of potential conflicts created by access points, such as driveways, at major activity centers creates elevated crash and fatality risk where such access points are most dense along major arterial corridors.
- High speeds along less congested rural routes elevate the risk of injury and death should a crash occur.
- Highway interchanges are associated with elevated crash and fatality rates.

### Transportation Demand Management

TDM programs are initiatives which seek to reduce or control the demand for transportation facilities, or mitigate the effects of rising demand. Primary TDM strategies include managed lanes, carpooling, and parking policies.

#### Managed Lanes

The Georgia Express Lanes (GEL) projects, led by GDOT, are intended to create a network of managed lanes that will help to control demand on congested corridors and provide more consistent travel times. They will also provide improved travel times for commuters who choose to vanpool, carpool, or take regional bus services, such as GRTA. Managed lanes are already in place on I-85 between I-285 and Old Peachtree Road. These existing managed lanes have their own entry and exit ramps at some locations, and exist within the right of way of previous general traffic lanes. The full GEL plan is visible in **Figure 9**.

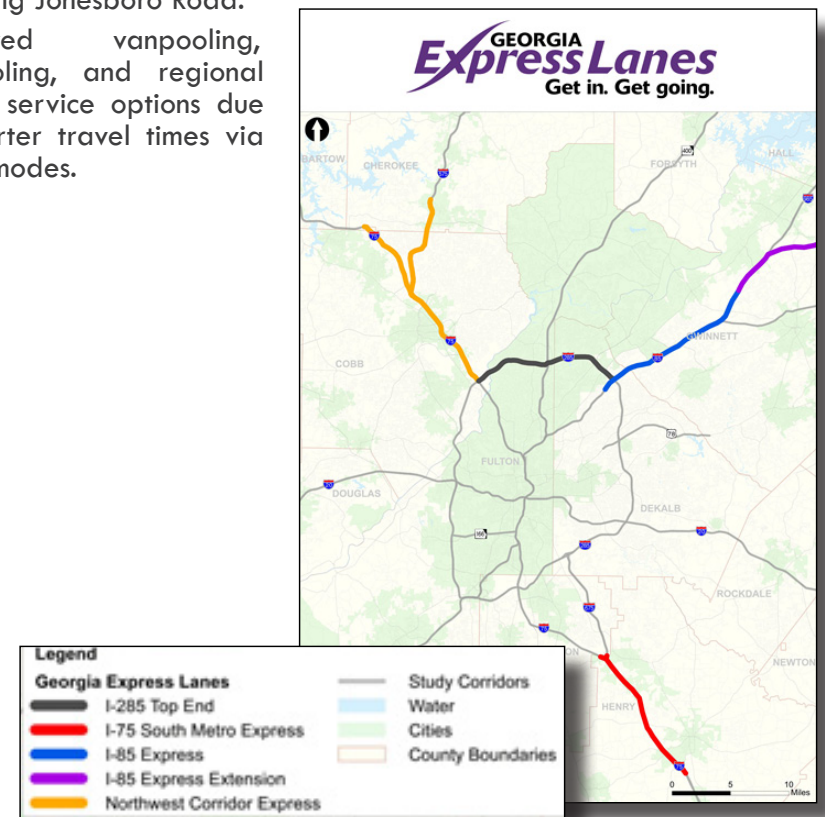
The I-75 South Metro Express lanes under construction in Henry County follow a modified model of the existing managed lanes. Rather than taking existing lanes, these managed lanes will operate in two newly constructed, reversible, center lanes with dedicated access ramps. The South Metro

Express Lanes will operate in Henry County for twelve miles on I-75 between SR 155 and SR 138, with access points at SR 138, I-675, Jonesboro Road, north of SR 20, and SR 155.

Key attributes of the South Metro Express Lanes include:

- A total contract cost of \$176 Million.
- A scheduled opening date of Winter 2017.
- A reversible lane system that is open to northbound traffic in the morning and southbound traffic at midday, afternoon peak, and evening periods.
- A variable toll system that responds to traffic levels and events in the area, with authorized high capacity vehicles (3+ person carpools, vanpools, and transit vehicles) traveling for free.
- Additional roadway capacity created by the two additional lanes, with no need to remove general lane capacity as with the I-85 express lanes.
- New ramp access points at several key Henry County arterial roadways, including Jonesboro Road.
- Improved vanpooling, carpooling, and regional transit service options due to shorter travel times via these modes.

**Figure 9: Georgia Express Lanes, Planned Locations**



Source: GDOT



## Carpooling

Henry County has an emerging ride-sharing market that is poised to grow as managed lanes are implemented. The County's existing TDM strategies may need to expand in order to fully accommodate the demand for ride-sharing. ACS 2013 statistics on Henry County residents' commutes to work indicate that 10.12 percent of all workers age 16 or older in the County commute via carpool. The mean commute time for Henry County workers was 33.3 minutes, indicating an elevated commute that stands to gain from shared ride strategies such as vanpooling.

The largest percentage of vanpooling and carpooling commuters, 21.9 percent, had commutes of 60 or more minutes, indicating that long range commuters comprise a significant number of vanpool and carpool users.

## Parking Policies

Henry County's many major commercial developments and town centers require significant parking amenities given the County's reliance on automobile travel.

The modern commercial developments located at Henry County's I-75 interchanges maintain large, dedicated surface parking lots which provide more than adequate parking facilities given current demand. Such large retail developments typically provide more parking than is required in order to accommodate future growth.

Henry County's town centers at Locust Grove and McDonough are home to dedicated parking lots, garages, and street parking facilities. Locust Grove provides public, shared, free parking in both lots and street stalls. Parking demand does not appear to be an issue at this time.

In July 2012, Lanier Parking Solutions provided a Parking Best Practices Review for the City of McDonough. This review noted the following parking conditions within the City:

- Approximately 1,371 total parking spaces, with 157 on-street meter spaces, 379 County restricted surface parking spaces, and 835 City and County unrestricted surface parking spaces.
- The Henry County parking deck provides 306 parking spaces at its Lawrenceville Street location. This deck is free of charge and open 24/7.
- All parking is free of charge excluding on-street parking, which is metered and limited to two hour intervals.
- Parking enforcement is conducted through hand-written tickets, and little to no signage exists to identify parking facilities.
- McDonough's existing parking facilities are fairly robust, but may require improved support services, such as better signage, to facilitate full and effective usage.

## Airports

According to the Federal Aviation Administration (FAA) there are a total of seven airports and one heliport in Henry County. Of those eight facilities only one, Atlanta South Regional Airport, is of public use. Atlanta South Regional Airport (4A7) is a general aviation facility located approximately 3 miles west of the City of Hampton directly adjacent to the northern boundary of the Atlanta Motor Speedway. It was initially built, owned, and operated by the Clayton County Government. The Henry County Board of Commissioners purchased the airport in 2011.

The county sees the airport as a driver of economic development due to the potential to attract corporations which require nearby airfields. The aerospace industry is a specific target as well as business with requirements for corporate travel. With this in mind the county's future land use map has been updated to show industrial uses surrounding the airport and Atlanta Motor Speedway.

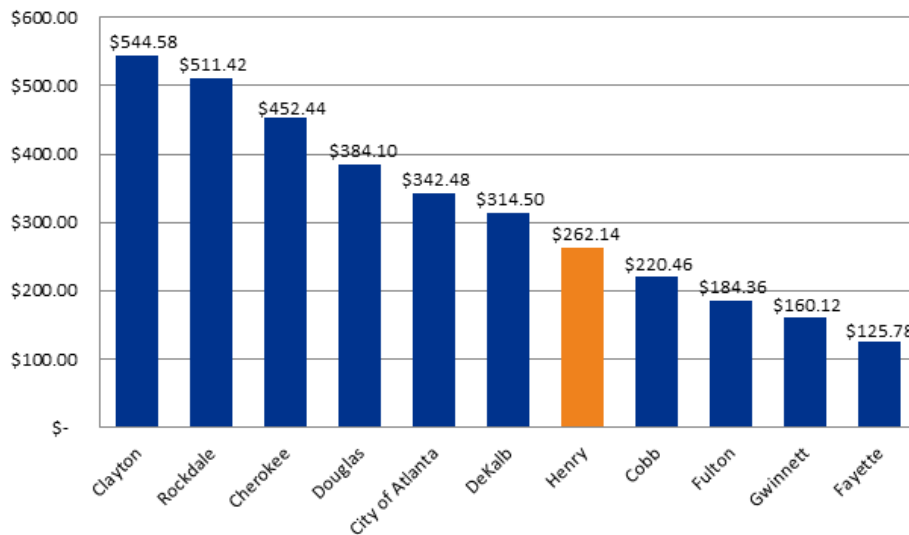
To better accommodate small jet aircraft the county extended and widened the runway in 2014. Other improvements are planned to improve safety, security and operations at the airport.

## Public Transportation and Human Services Transportation

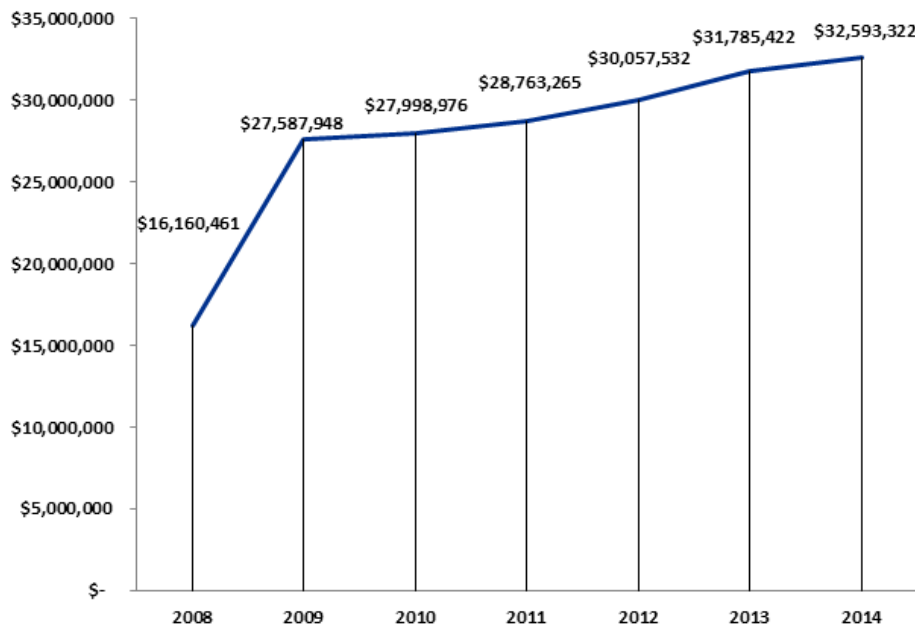
Henry County Transit (HCT) is a department of the County that provides on-demand transit services in Henry County. Demand-response service is defined as advance scheduled curb-to-curb rides, for customers.

For the 2014 fiscal year, HCT provided 93,868 trips. Approximately 23 percent of the trips were provided to public riders who scheduled and paid for their own ride and were not part of any contracted provision of service. Of these public riders, 19.3 percent were elderly. These were not the only elderly trips provided, as eligible seniors have trips to senior centers covered by the DHS contract. A total of 33.8 percent of all trips were to or from one of the three senior centers in Henry County. Service to senior centers is expected to increase once construction of a fourth senior center in Hampton is completed within the next year. The two most popular trip types for public riders were medical appointments and social/shopping trips, accounting for 56.8 percent and 30.7 percent of publicly scheduled trips respectively.

**Figure 10: TIP Funding Per Capita, 2012-2017 TIP**



**Figure 11: Annual SPLOST Collections, Henry County 2008-2014**



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## Funding

The County's Special Purpose Local Option Tax (SPLOST) is the main source of transportation funding for both the county and cities. As shown in **Figure 11**, SPLOST revenues have increased at an annual rate of 3.39 percent since 2009 (12.4 percent since 2008). The SPLOST IV project list allocates about 61% of funds to transportation purposes. The remaining 39% goes to items like parks, senior centers, and police and fire equipment. The most recent SPLOST IV is expected to generate \$190 million over the six years ending in 2019. Current receipts are coming in slightly higher than original estimates.

GDOT's Local Maintenance and Improvement Grant (LMGI) funds are an important source of maintenance funding in the county. Under HB 170, the Transportation Funding Act, LMIG funds are projected to increase between 30 percent and 80 percent.

Henry County is ranked in the bottom half of federal funding allocation in the Atlanta Regional Commission's Transportation Improvement Program, in terms of both total funding and per capita funding (**Figure 10**).

## Freight Flows & Freight Corridors

Freight is an integral part of Henry County's economy and has significant impacts on the transportation network. Equally, the movement of freight in and through Henry County plays an important role in the state, particularly along I-75 as the major connection, along with I-16, to the Georgia Ports Authority and to the ports located in Florida. The Georgia Freight and Logistics Plan (GFLP) highlights the importance of Henry County freight to the state:

*I-75 between Atlanta and Macon is the second most significant freight corridor in Georgia. It captures traffic between the Atlanta metropolitan region and Georgia's top trading partner, Florida. It also is used by trucks moving goods coming through the Port of Savannah to get to Atlanta and points further west and north. I-75 in Henry and Clayton Counties are fast growing freight centers and also drive a significant portion of the truck volume close in to the Atlanta region.*

According to the GFLP, I-75 in Henry County had the fifth highest truck count of interstate count locations in Georgia at almost 20,000 truck average annual daily traffic (AADT), compared to the highest truck count of just over 25,000 truck AADT on I-75 in Cobb County. Also according to a study cited in the GFLP, of Georgia counties, Henry County had the ninth largest number of trucks stopped, indicating a prevalence of freight trip ends in the county.

The GFLP also cites a study of Georgia counties that reported that Henry County had the ninth largest number of stopped trucks, which indicates a prevalence of freight trip ends in the county.

## Atlanta Regional Strategic Truck Route Master Plan (ASTRoMaP)

The Atlanta Regional Strategic Truck Route Master Plan (ASTRoMaP) was developed by the ARC and adopted in 2010, with the aim to “identify preferred routes and develop strategies to support the efficient movement of truck traffic without disproportionately impacting communities, the environment, or the transportation network.” ASTRoMaP recommended several projects that pertain to Henry County:

- Add a southbound left-turn lane at the intersection of SR 155 and Camp Creek Drive.
- Add left turn lanes at the intersection of SR 155, Ashley Oaks Drive, and Pinnacle Lane.
- Add a northbound left-turn lane at the intersection of SR 155 and Capwelch Drive.
- Increase radii on all four intersection approaches or replace signal with a roundabout at the intersection of SR 155 and SR 42.
- Construct a 12-mile long four-lane divided highway by-pass around city of McDonough to reduce severe congestion in downtown McDonough.

## Freight Generating Land Uses

Identifying the location of distribution centers captures concentrations of freight activity. Distribution centers are intermediate points in the supply chain. Raw materials flow to manufacturing/production facilities. Finished products

then travel from the manufacturing/production facilities to distribution centers. From the distribution centers, goods flow to retail centers. ASTRoMaP freight routes in Henry County, along with freight-intensive land uses, are presented in **Figure 12**.

Identifying manufacturing and retail land uses help paint a more complete picture of freight movement. Distribution centers often have service areas beyond the county itself, extending across the state or southeastern U.S.

Freight generating land uses were determined according to ARC’s 2010 LandPro data. Warehousing and distribution is included in the industrial/commercial category, while manufacturing is included in industrial. Also mapped are areas flagged in 2010 as transitional, or facing possible residential or freight-oriented development. Some of the transitional areas have since become freight generating land uses as well. Warehousing and distribution land uses in particular have proliferated around the SR 155 interchange with I-75.

Henry County’s future land use map also indicates current and future freight centers. Industrial growth clusters include continued development centered on SR 155 and I-75 and in Stockbridge and new industrial development near the Atlanta Motor Speedway and Atlanta South Regional Airport.

*With the exception of I-75, US 19/41 shows the highest volumes of trucks within Henry County. Corridors with the next highest truck volumes include SR 155, SR 81, US 23/SR 42, and SR 138 west of US 23/SR 42.*



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Figure 12: ASTRoMaP

