

**A Resolution of the Mayor and Council of the City of Holly Springs
in Officially Adopting the
“Town Center Transportation Study and Plan”**

WHEREAS, the Mayor and City Council adopted the Livable Centers Initiative (LCI) Plan in December 2004; and

WHEREAS, the LCI Plan and subsequent progress report completed for the 2010-2015 planning period, establishes expectations for developing a town center transportation strategy; and

WHEREAS, in Spring 2010, the City of Holly Springs was awarded by the Atlanta Regional Commission (ARC) a supplemental study to complete a transportation study of the LCI Area and “Town Center;” and

WHEREAS, among a field of qualified proposals, URS Corporation was selected by the Mayor and City Council to complete this transportation study, the “Town Center Transportation Study and Plan;” and

WHEREAS, after thorough research and analysis, the URS Corporation completed the study and plan, delivering the final version to the Mayor and City Council on May 2, 2011; and

NOW THEREFORE, IT IS HEREBY RESOLVED, that the Mayor and City Council of the City of Holly Springs, Georgia, do hereby adopt as official policy the “Town Center Transportation Study and Plan” attached hereto as Exhibit “A;” and

IT IS HEREBY FURTHER RESOLVED, that the Mayor and City Council of the City of Holly Springs, Georgia, seek to implement this plan, planning for and executing the transportation projects set forth herein for the enhancement and development of transportation facilities in the LCI Area.

This Resolution is adopted this 16th day of May, 2011.

By Timothy B. Downing
Timothy B. Downing, Mayor

Attest:

Karen Norred
Karen Norred, City Clerk

CITY OF HOLLY SPRINGS, GEORGIA



TOWN CENTER TRANSPORTATION STUDY & PLAN

A detailed architectural illustration of a building's exterior. The building features a large, dark wooden sign with the words 'HOLLY SPRINGS' in white, serif, all-caps lettering. The sign is mounted on a light-colored wooden frame. Below the sign, the building has horizontal wooden siding and a large window with a white frame. In the background, another building with a gabled roof and several windows is visible. The entire illustration is set against a light blue sky.

HOLLY SPRINGS

FINAL – May 2, 2011

URS



TOWN CENTER TRANSPORTATION STUDY & PLAN

FINAL – May 2, 2011

URS Project #: 15280811

Prepared for:

The City of Holly Springs, Georgia
3237 Holly Springs Parkway
Holly Springs, GA 30115

Prepared by:

URS Corporation
400 Northpark Town Center
1000 Abernathy Road, NE
Suite 900
Atlanta, GA 30328
Tel: 678.808.8800
Fax: 678.808.8400
www.urscorp.com



EXECUTIVE SUMMARY

The City of Holly Springs is a community located in central Cherokee County, Georgia with a U.S. Census estimated 2009 population of 9,126 people. For the past decade, many of the planning efforts in the city have focused on creating a town center, conducted through the Livable Centers' Initiative (LCI), a program providing funding and planning assistance from the Atlanta Regional Commission (ARC).

This Town Center Transportation Study & Plan focuses on the existing and future transportation needs within the town center area. As such, a variety of planning and engineering analysis techniques were used including site observations, Highway Capacity Manual (HCM) based intersection

analysis, and stakeholder engagement. A variety of conclusions were made, most focusing on the Hickory Street corridor, particularly in the short distance between Holly Springs Parkway and Palm Street where a variety of different transportation issues were discovered. In addition, the study determined that the two major roadways serving Holly Springs (Hickory Street and Holly Springs Parkway) may need future widening in order to minimize future congestion.

Recommended projects, implementation timeframes, estimated costs, and potential funding sources are provided in the table below. In addition, the map on the next page depicts the locations of the projects.

Town Center Transportation Study and Plan Recommendations

Project ID	Project Title	Implementation Timeframe			Estimated Project Costs	Potential Funding Responsibilities
		Short-Term	Mid-Term	Long-Term		
1	Palm Street Extension	●			\$1,960,000	<ul style="list-style-type: none"> •ARC (LCI funds) •City of Holly Springs
2	Jackson Street Closure and P. Rickman Industrial Access	●			\$4,115,000	<ul style="list-style-type: none"> •ARC (LCI funds) •City of Holly Springs
3	Town Center Grid Network		●		N/A	<ul style="list-style-type: none"> •City of Holly Springs •Site Developer
4 / CH-218	Town Center Multimodal Improvements		●		\$648,081	<ul style="list-style-type: none"> •ARC (LCI funds) •City of Holly Springs •Federal/GDOT
5	Town Center Access Improvements		●		N/A	<ul style="list-style-type: none"> •City of Holly Springs •Site Developer
6 / CH-215	Industrial Connector			●	\$8,089,200	<ul style="list-style-type: none"> •City of Holly Springs •Cherokee County
7	Hickory Street Corridor Widening			●	\$87,694,000	<ul style="list-style-type: none"> •City of Holly Springs •Cherokee County •Federal/GDOT
8	Holly Springs Parkway Widening			●	\$45,711,000	<ul style="list-style-type: none"> •City of Holly Springs •Cherokee County •Federal/GDOT
9	P. Rickman Industrial – Pinecrest Connections			●	N/A	<ul style="list-style-type: none"> •City of Holly Springs •Site Developer

N/A = Cost of project contingent on actual development plans and therefore cannot be estimated at this time
Source: ARC Planning Level Cost Estimate Tool and ARC Envision 6 Regional Transportation Plan



EXECUTIVE SUMMARY

Holly Springs Transportation Study & Plan Recommended Projects

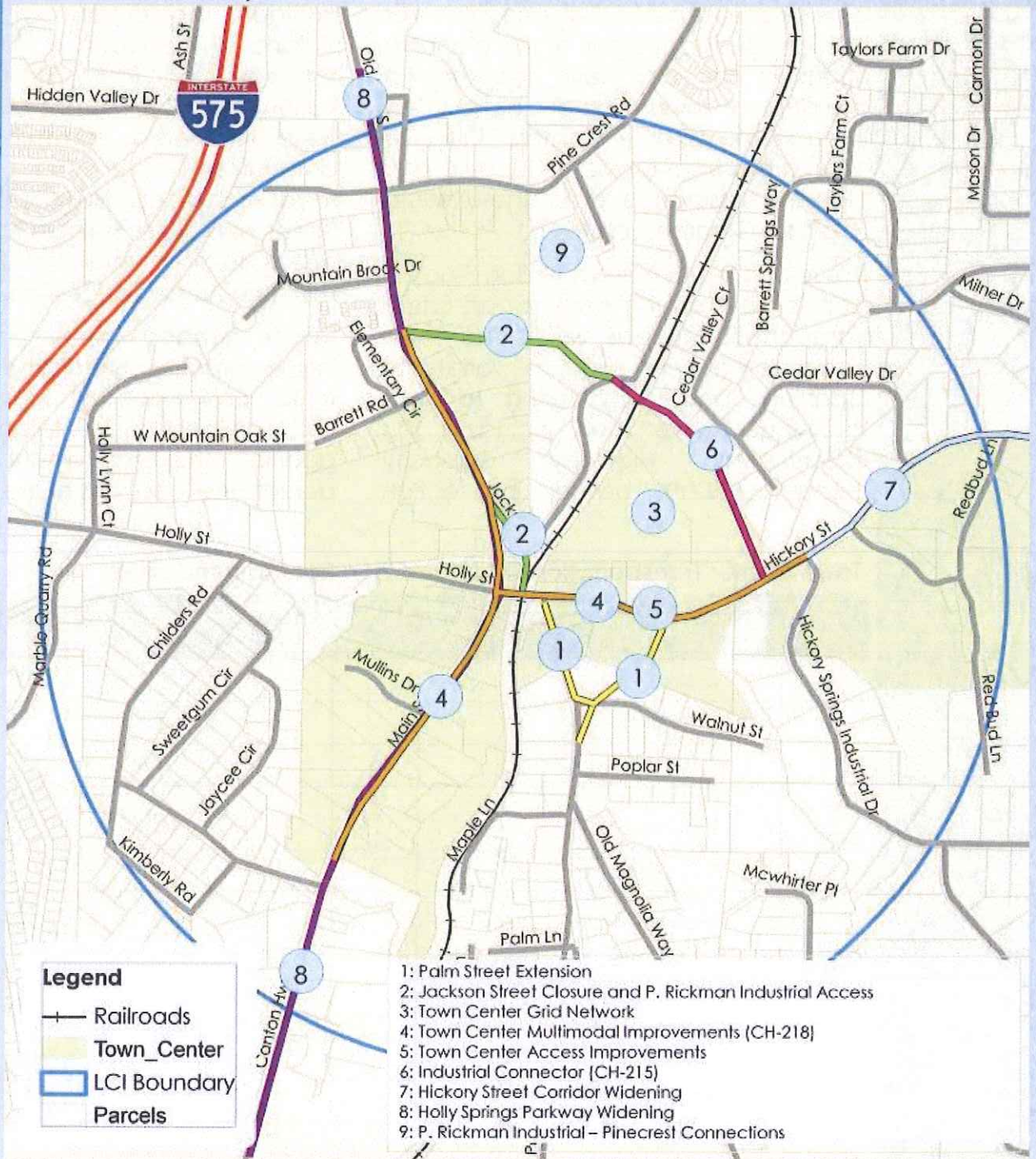




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I - INTRODUCTION

The City of Holly Springs is a community located in central Cherokee County, Georgia with a U.S. Census estimated 2009 population of 9,126 people. Located between county seat Canton and the City of Woodstock, the City of Holly Springs is served by two major interchanges with Interstate 575 – one at Exit 11 (Sixes Road) and one at Exit 14 (Holly Springs Parkway). While the community has historically been rural in nature, suburban growth has moved northwards from Atlanta, particularly in the past 10 years. A map of the City's location is provided in **Figure 1.1**.

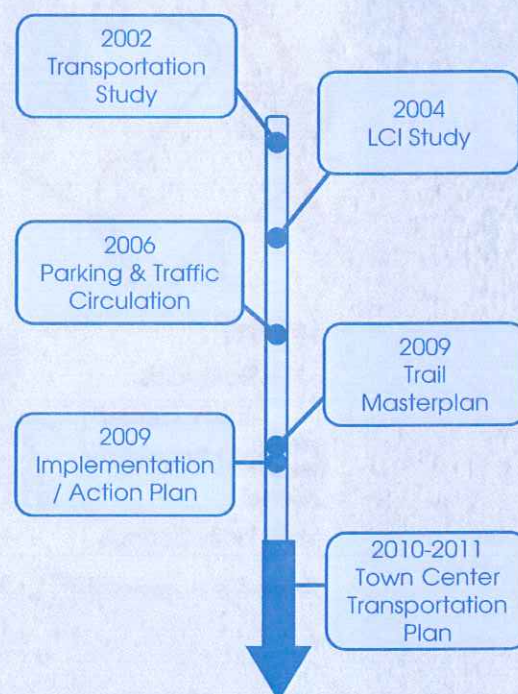
In addition to the Interstate 575 access, the City is served primarily by one major north-south roadway (Holly Springs Parkway) which connects the City to Canton to the north and to Woodstock to the south. The City is also served by one major east-west roadway (Hickory Street), which connects the City to the Hickory Flat area located to the east. The historical center of the City is located near the intersection of these two roadways, which is also the location of the City of Holly Springs' railroad depot located on the Georgia Northeastern Railroad (GNRR), a short line freight railroad that connects Marietta, Georgia to Blue Ridge, Georgia. This immediate center of the City has been the focus of an ongoing effort to create a new town center development, which has been planned for the area to the northeast of the Holly Springs Parkway/Hickory Street intersection. A map of the City's center (in effect the study area) is provided in **Figure 1.2**.

The town center planning effort has largely been conducted as part of the

Livable Centers' Initiative (LCI), a program providing funding and planning assistance from the Atlanta Regional Commission (ARC), which serves as both the City's representative Metropolitan Planning Organization (MPO) and Regional Commission. The LCI program includes a variety of goals including the following:

- Encouraging mixed-use development
- Enhancing community aesthetics
- Improving access to multiple transportation modes
- Expanding housing and employment options
- Creating planning outreach programs with the local community

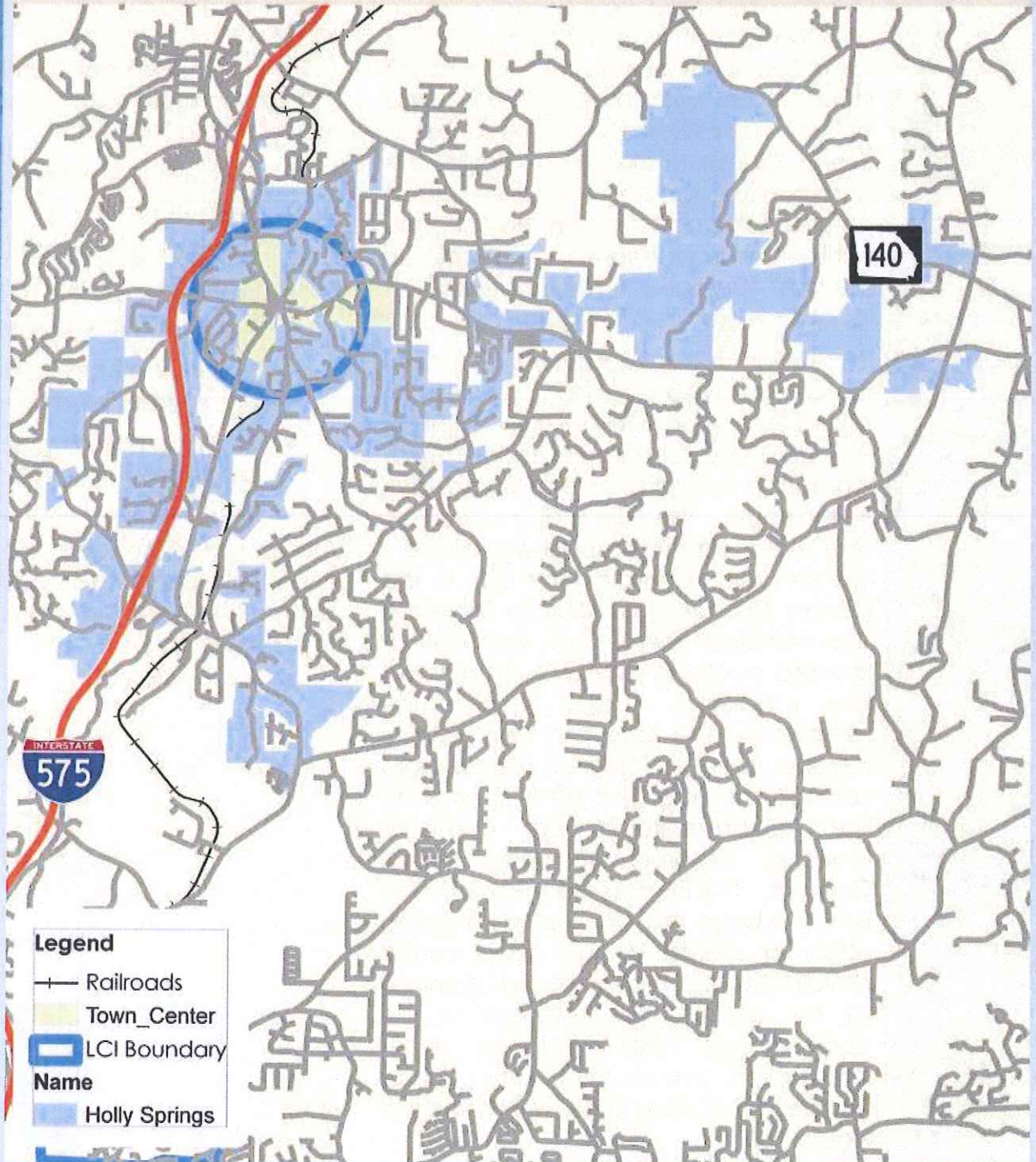
Over the past decade, the town center area has been the focus of several study initiatives as depicted in the graphic below.





I - INTRODUCTION

FIGURE 1.1
Holly Springs





I - INTRODUCTION

FIGURE 1.2
Town Center Study Area





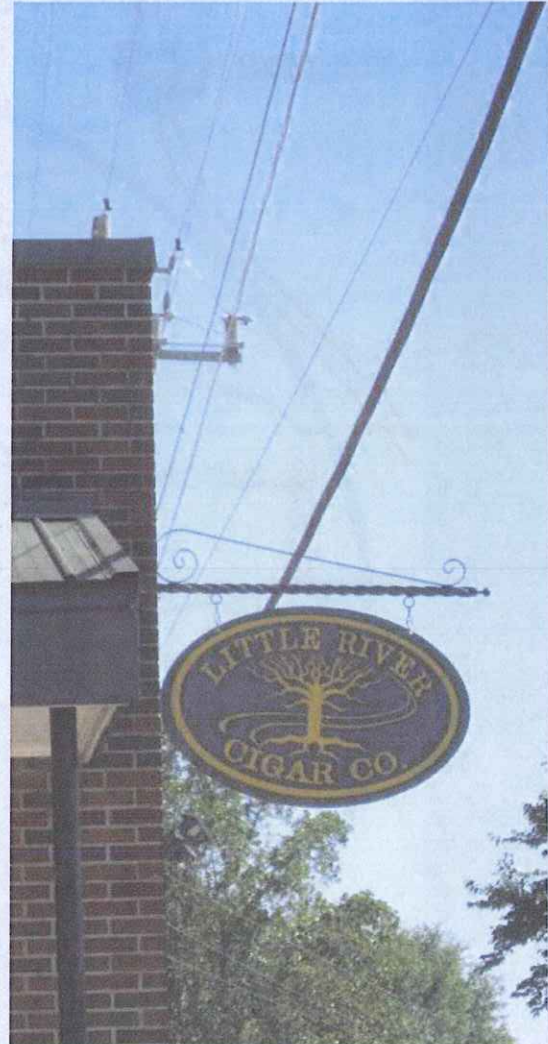
I - INTRODUCTION

With the commencement of this study, the Town Center Transportation Study & Plan, the City seeks to perform the following:

- Develop transportation improvements to facilitate town center progress
- Develop a grid network for the town center
- Plan for transportation impacts once the town center is implemented
- Develop an action plan to implement and fund transportation projects

As such, the study has been developed to incorporate a combination of both transportation planning and engineering methods with the goal in mind of developing feasible transportation projects that can be implemented in phases. While the study incorporated several analyses, to simplify the documentation process, the study is organized into the following four basic sections:

- Identification of existing needs
- Identification of future needs
- Stakeholder engagement
- Recommendations





II – IDENTIFICATION OF EXISTING NEEDS

Existing needs in the town center vicinity were identified using a variety of procedures as documented in the following section.

2.1 Data Collection

Data collection efforts including a substantial review of existing and new data relating to the town center area. The data collection effort consisted of three major components:

- Review of previous studies
- Site visits
- Collection of traffic data

2.1.1 Review of Previous Studies

The review of previous studies focused primarily on the studies pertaining to the LCI and town center area. The following is a summary of the findings from each study.

2002 Transportation Study

Similar to this study, this 2002 effort focused on transportation conditions in the immediate vicinity of central Holly Springs. A major theme throughout the study was to make the area safe and attractive to pedestrians and a variety of projects were subsequently proposed and implemented in the vicinity of the Railroad Depot.

2009 Trail Masterplan

This 2009 study developed a trail network to serve the town center area.

2009 Implementation & Action Plan

The 2009 implementation and action plan served as a documentation of the

An additional recommendation of the study was developed due to concerns about high levels of truck traffic on Hickory Street in the central area. An 'industrial connector' was proposed for such traffic to bypass the town center connecting Hickory Street to Holly Springs Parkway via a variety of different alignment alternatives all of which formed a northeastern arc around the town center area and included crossing the GNRR railroad through a variety of treatments including at-grade and grade-separations.

The study also identified the need to align the intersection of Holly Springs Parkway and Holly Street to the intersection of Holly Springs Parkway and Hickory Street, an improvement which was subsequently implemented.

2004 LCI Study

The 2004 LCI study focused primarily on conceiving the town center within central Holly Springs at its currently planned site northeast of the GNRR and Hickory Street.

2006 Parking & Traffic Circulation Study

This study refined some of the transportation ideas initially recommended in the 2002 Transportation Study while providing a variety of recommendations regarding public parking provisions in the town center area.

implementation status of the projects and studies associated with the LCI. In particular, the plan also serves as a formal documentation for the August 2008 charette that refined the town center concept from its incarnation developed as part of the 2004 LCI



II – IDENTIFICATION OF EXISTING NEEDS

Study. The charette's development of the town center is shown in the image below.

City of Holly Springs Comprehensive Plan

The City of Holly Springs Comprehensive Plan, adopted in February 2008, reaffirmed the town center concept in the center of Holly Springs through the development of a future land use map.

Atlanta Regional Commission Regional Transportation Plan

The most recently adopted transportation plan for the Atlanta

region is the Envision6 (the Plan 2040 effort is underway currently) plan, which identified two transportation projects in the center of Holly Springs, both of which are depicted in **Figure 2.1**:

- CH-215: Industrial Drive extension from Holly Springs Parkway to Hickory Road (the "industrial connector")
- CH-218: Hickory Road and Holly Springs Parkway downtown pedestrian network improvements.

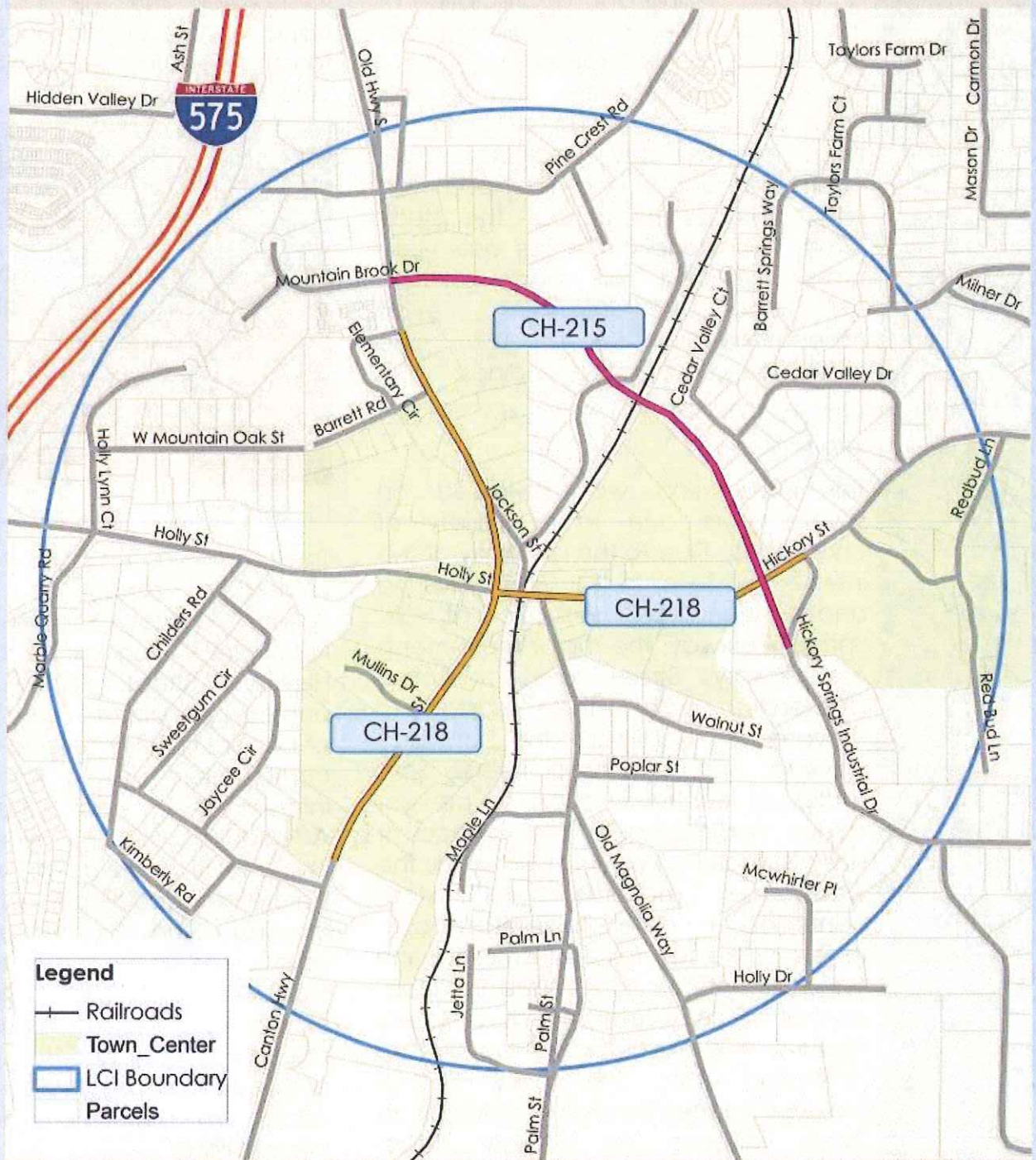


August 2008
Charette



II – IDENTIFICATION OF EXISTING NEEDS

FIGURE 2.1
ARC Projects



This map is for planning purposes only. The transportation projects are conceptual in nature and are not intended to indicate exact alignments or locations.



II – IDENTIFICATION OF EXISTING NEEDS

2.1.2

Site Visits

A series of site visits were conducted in the town center area in order to gain an understanding and appreciation of the opportunities and challenges for developing transportation projects to support the town center. The site visits were conducted during a variety of times of the day (morning peak, afternoon peak, mid-afternoon) on different days throughout the study effort. Additionally, the site visits were cross-referenced as part of the stakeholder engagement effort (documented in Section IV). The following is a summary of findings.

Hickory Street and Palm Street intersection

This intersection was reviewed on several visits due to a variety of challenges. Due to the proximity of the intersection to both the GNRR crossing and the signalized intersection at Holly Springs Parkway, the major movements on Hickory Street are controlled differently, with the eastbound movement (leaving the railroad crossing and signalized intersection) under no control in order to prevent queue backups onto the railroad or Holly Springs Parkway. In contrast, the westbound movement is stop-controlled in order to meter traffic entering into the railroad crossing and signalized intersection. While the stop-control works effectively as a safety feature, it is exacerbated by queues extending from the Holly Springs Parkway intersection that contribute to larger queues on Hickory Street particularly in the morning and afternoon peak periods. Additionally, traffic demand on Palm Street is not

particularly high and large queues were not observed approaching the intersection but the inconsistency in traffic control on Hickory Street seems to create sporadic confusion regarding vehicle right of way.



Hickory Street and GNRR

The location of the GNRR crossing in the immediate vicinity of where Holly Springs Parkway, Jackson Street, and Palm Street can all be accessed by Hickory Street (shown in the photograph above) creates a variety of conflict points particularly due to the combination of closely spaced intersections and truck traffic. Additionally, per regulation, school bus traffic must come to a complete stop before proceeding through the railroad crossing. Due to a nearby school bus yard on Hickory Street, several buses were observed at the railroad crossing during the morning peak and mid-afternoon causing additional congestion along Hickory Street that often extends into the adjacent intersections.

Hickory Street and Holly Springs Parkway



II – IDENTIFICATION OF EXISTING NEEDS

This intersection was until recently offset from Holly Street. While the recent alignment of Hickory Street to Holly Street at a single signalized intersection has addressed a variety of safety and congestion issues, the intersection must still operate under a split phase operation (eastbound traffic is permitted separately from westbound traffic) due to site distance constraints.

Holly Springs Parkway corridor

While little congestion was observed on Holly Springs Parkway a few observations were made:

- The intersection at Jackson Street presents a variety of site distance challenges due to both extreme horizontal and vertical curves (shown in the photograph to the right). There is a relatively high demand of turning vehicles due to Jackson Street's use as a cut-through to avoid the intersection of Holly Springs Parkway and Hickory Street and access to the P. Rickman industrial area.
- There are a number of access management challenges including multiple access points from Holly Springs Parkway to single businesses, minimal inter-parcel connectivity, and access provided at less than optimal locations. For instance, access to the post office is located immediately north of the already challenging intersection with Jackson Street. On several occasions, vehicles were observed turning from Jackson Street onto Holly Springs Parkway but did not pick up appropriate speed due to an immediate right

turn into the post office parking lot.

Hickory Street corridor

The Hickory Street corridor is limited mainly by the previously discussed issues at Holly Springs Parkway, the GNRR crossing, and Palm Street.



Jackson Street corridor

The Jackson Street corridor is challenged by both the aforementioned intersection at Holly Springs Parkway and its intersection with Hickory Street which closely spaced with Holly Springs Parkway, the GNRR crossing, and Palm Street. With few businesses and residences located on Jackson Street, the road appears to be used primarily as access to the P. Rickman industrial area and as a cut-through for traffic seeking to avoid the congestion at the intersection of Holly Springs Parkway and Hickory Street.



II – IDENTIFICATION OF EXISTING NEEDS

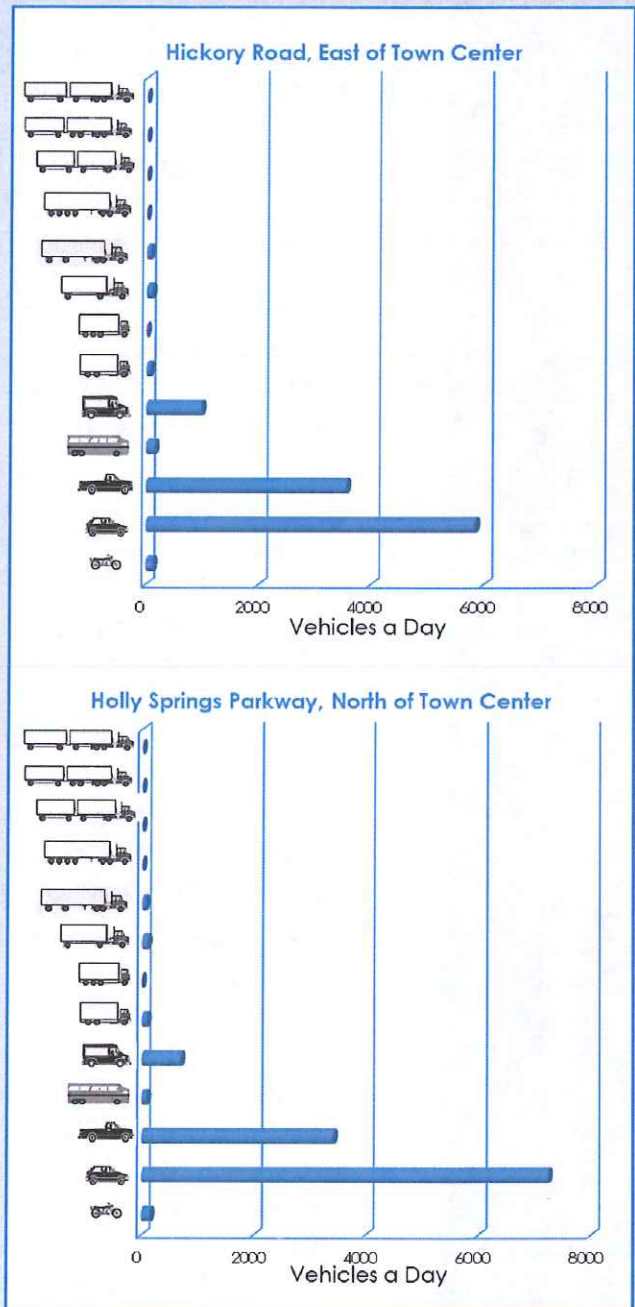
2.1.3

Traffic Data Collection

To supplement the site observations, traffic data was collected throughout the town center area. The count data consisted of peak period turning movement counts at intersections, 24 hour segment volume counts, and 24 hour vehicle classification counts. The data was collected on Tuesday, November 16, 2010 and Wednesday, November 17, 2010 (a typical work week while local schools were in session). The count program locations are depicted in **Figure 2.2**.

The resulting daily traffic volumes are shown in **Figure 2.3** indicating that the majority of traffic is on Hickory Street and Holly Springs Parkway to the north of the town center area. Additionally, the vehicle classification counts on both Hickory Street and Holly Springs Parkway indicate a relatively large presence of single unit trucks (which includes school buses) as shown in the graphic to the right.

The AM and PM peak period turning movement counts were analyzed to determine the peak hour of traffic demand at each intersection within each peak period. The resulting AM and PM peak hour turning movement volumes are shown in **Figure 2.4**, respectively. Additionally, the raw count volumes are provided in **Appendix A**.





II – IDENTIFICATION OF EXISTING NEEDS

FIGURE 2.2
Traffic Count Program





II – IDENTIFICATION OF EXISTING NEEDS

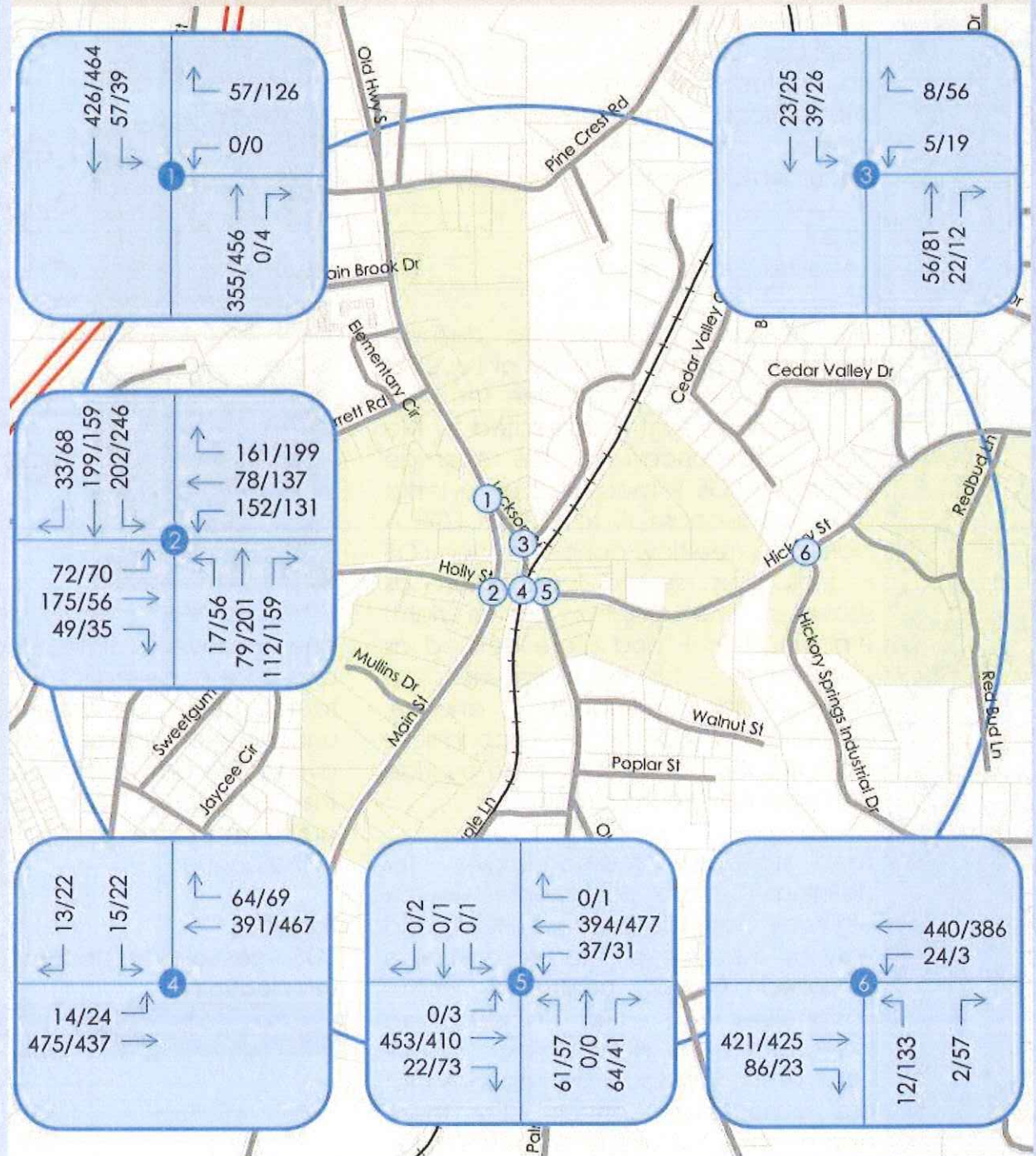
FIGURE 2.3
Daily Traffic Volumes





II – IDENTIFICATION OF EXISTING NEEDS

FIGURE 2.4
Existing AM/PM Peak Hour Volumes





II – IDENTIFICATION OF EXISTING NEEDS

2.2

Analysis of Existing Conditions

In order to quantify the existing conditions in the town center area, a traffic engineering analysis of typical weekday peak hour congestion was conducted at the study area intersections. The following section defines the methodology and documents the results of this analysis.

2.2.1

Analysis Methodology

The standard approach to defining traffic congestion is the use of Level of Service (LOS), a quantifiable measure of congestion that is correlated to the delay experienced by the average vehicle. LOS is measured on a letter grade scale from A to F, with LOS A indicating free-flow conditions and LOS F indicating severe congestion as shown in the graphic to the right. Typically, LOS E and F are defined as undesirable – for the purposes of a transportation impact analysis, evidence of LOS E or F conditions indicates the potential need to provide transportation improvements.

The standard methodologies for defining LOS are documented in the Highway Capacity Manual (HCM) and vary by the type of intersection being analyzed (signal controlled versus unsignalized). For unsignalized intersections, the HCM defines LOS for each of the individual approaches that are under stop control. For these approaches, the average control delay per vehicle correlates to LOS as shown in **Table 2.1**. The average control delay includes initial deceleration delay,



Level of
Service
A - B



Level of
Service
C - D



Level of
Service
E - F

Source: FDOT Quality Level of Service Manual

queue move-up time, stopped delay, and final acceleration delay. Several factors affect the controlled delay for unsignalized intersections, such as availability and distribution of gaps in the conflicting traffic stream, critical gaps, and follow-up time for a vehicle in the queue.

Table 2.1
LOS Thresholds for Unsignalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	≤ 10.0
B	> 10.0 and ≤ 15.0
C	> 15.0 and ≤ 25.0
D	> 25.0 and ≤ 35.0
E	> 35.0 and ≤ 50.0
F	> 50.0

Source: 2000 Highway Capacity Manual



II – IDENTIFICATION OF EXISTING NEEDS

For signalized intersections, LOS is defined in terms of average control delay per vehicle for all movements, which is composed of initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. **Table 2.2** presents LOS thresholds for signalized intersections.

Table 2.2
LOS Thresholds for Signalized Intersections

Level of Service	Average Control Delay (sec/veh)
A	≤ 10.0
B	> 10.0 and ≤20.0
C	> 20.0 and ≤35.0
D	> 35.0 and ≤55.0
E	> 55.0 and ≤80.0
F	> 80.0

Source: 2000 Highway Capacity Manual

2.2.2 Level of Service Analysis

The analysis to determine existing peak hour LOS was conducted using Synchro 7.0, a software program that utilizes the methodologies recommended in the HCM. The LOS results are indicated in **Table 2.3**, with the correlated average delays indicated in **Table 2.4**. Raw output from Synchro is included in **Appendix B**.

The results indicate LOS D or better conditions with the exception of the Hickory Springs Industrial intersection in the PM peak hour. Site observations did not indicate any major congestion issues at the intersection and the analysis results are more likely due to limitations inherent in analyzing unsignalizing intersections in which

uniform gaps in traffic (for turning vehicles to turn into) are assumed. Converting Synchro into a SimTraffic visual simulation (where the interaction of adjacent intersections is incorporated and therefore gaps in traffic are better estimated) of traffic did not indicate any notable congestion. Likewise, LOS at the Palm Street intersection could not be determined due to limitations in the analysis but the SimTraffic simulations did indicate congestion in the westbound direction as has been observed in the site visits.

Table 2.3
Existing Level of Service

Intersection	AM	PM
Holly Springs Parkway @ Hickory Street	C	D
Holly Springs Parkway @ Jackson Street Jackson Street Stop Approach	B	B
Jackson Street @ P. Rickman Industrial P. Rickman Stop Approach	A	B
Hickory Street @ Jackson Street Jackson Street Stop Approach	C	C
Hickory Street @ Palm Street Hickory Street Stop Approach Palm Street Stop Approach	N/A N/A	N/A N/A
Hickory Street @ Hickory Springs Industrial Hickory Springs Industrial Stop Approach	C	F

N/A = Intersection configuration not allowed in HCM analysis

Table 2.4
Existing Average Control Delay (sec/veh)

Intersection	AM	PM
Holly Springs Parkway @ Hickory Street	28.8	44.9
Holly Springs Parkway @ Jackson Street Jackson Street Stop Approach	12.2	13.8
Jackson Street @ P. Rickman Industrial P. Rickman Stop Approach	9.5	10.1
Hickory Street @ Jackson Street Jackson Street Stop Approach	16.8	18.6
Hickory Street @ Palm Street Hickory Street Stop Approach Palm Street Stop Approach	N/A N/A	N/A N/A
Hickory Street @ Hickory Springs Industrial Hickory Springs Industrial Stop Approach	20.3	53.3

N/A = Intersection configuration not allowed in HCM analysis



II – IDENTIFICATION OF EXISTING NEEDS

2.3

Safety Analysis

In addition, to supplement the site reviews a transportation safety analysis was conducted of the town center area. This was conducted by collecting crash data in the study area from the years 2005 through 2009. Analysis of the crash data, did not indicate any patterns or crashes of correctible nature. The raw crash data is provided in **Appendix C**.

2.4

Existing Transportation Needs

Based on the analyses conducted of the existing conditions, the major congestion and safety issues were determined to be the connections to Jackson Street and the area surrounding the GNRR crossing and the adjacent intersections. Therefore the following needs were articulated:

- Need to close access to Jackson Street and provide new access to P. Rickman Industrial
- Need to limit conflict points on Hickory Street near the GNRR crossing, including moving major access to Palm Street away from the railroad

While the need to construct the 'industrial connector' to divert traffic away from the Hickory Street/GNRR crossing has been strong in the community for some time, these two needs will also address the issues at the crossing and can be resolved through easier-to-implement and cheaper transportation projects, allowing efforts to plan the 'industrial connector' to

continue while offering shorter term relief. The following is a summary of why these needs were determined.

[Jackson Street Closure and Access to P. Rickman Industrial Area](#)

The main concern with Jackson Street is associated with its access. At Holly Springs Parkway, the intersection angle creates a potential safety hazard for vehicles turning from Jackson Street as well as vehicles on Holly Springs Parkway approaching the intersection. While the analysis of crashes did not indicate any overall patterns that could be mitigated, the intersection remains a challenge for Holly Springs. Likewise, Jackson Street's connection to Hickory Road, immediately to the west of the GNRR crossing creates additional safety and congestion issues. While there have been some thoughts to modify Jackson Street to be a northbound one-way street, there will be limitations using this approach in providing access to the P. Rickman Industrial area. In keeping with the City's long term goals to enhance the downtown area, the best option is likely to close the access from Holly Springs Parkway and Hickory Street to Jackson Street and replace access to the P. Rickman Industrial area through a new connection directly to Holly Springs Parkway.

[Limit Conflict Points On Hickory Street Corridor](#)

Along Hickory Street, the numerous conflict points in the short distance between Palm Street and Holly Springs Parkway needs to be reduced. Closing the access to Jackson Street will reduce some of these conflicts, but



II – IDENTIFICATION OF EXISTING NEEDS

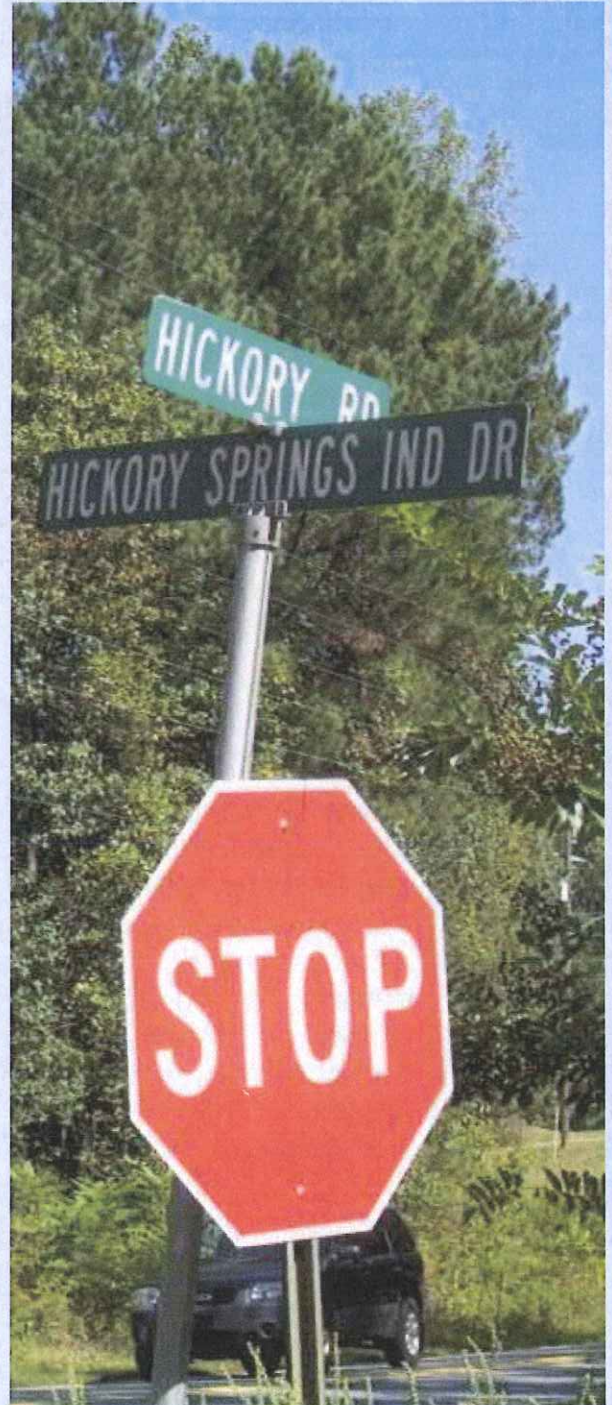
treatment is needed for the Palm Street intersection as well. The current stop control on the westbound approach at this intersection causes both congestion and confusion to drivers regarding vehicular right of way due to the free flow control on the eastbound Hickory Street approach.

The intersection's adjacency to the GNRR crossing also creates challenges. While previous ideas have included signaling the intersection and tying the phasing to the Holly Springs Parkway intersection there are numerous challenges to this strategy.

- First, the peak hour volumes at the intersection and crash history at the intersection would not likely warrant a signal.
- Second, if such a strategy were implemented, a complicated phasing would need to be utilized to coordinate all the movements between Holly Street, Hickory Street, Holly Springs Parkway, and Palm Street. This phasing would likely create more congestion through the area and would need to be similar to the set up previously used along Holly Springs Parkway to coordinate the separate intersections at Holly Street and Hickory Street.

Therefore, the best option is to limit access to Palm Street at its current location and supplement this access by an extension of Palm Street further to the east along Hickory Street in order to remove the major turning movements from its immediate adjacency to the GNRR crossing and Holly Springs Parkway intersection. As an additional

value, this new intersection could act as a gateway into the new town center and tie into whatever transportation network is eventually developed internal to that site.





III – IDENTIFICATION OF FUTURE NEEDS

To identify future needs of the town center area, it was necessary to define what may affect transportation conditions in the future. The following section addresses the analyses and methods used to address future condition and establish future transportation needs.

3.1

Regional Transportation Growth

To develop regional transportation growth, there are two generally accepted methods. As population and employment growth rates cannot be correlated directly to transportation growth, travel demand models are often used to translate expectations in future development to traffic growth. Likewise, analysis of historical traffic volumes can often suggest statistically valid patterns in growth that can be extrapolated to estimate future conditions.

3.1.1

Travel Demand Model Based Growth

Travel demand models are useful tools to correlate population and employment growth into transportation demand. In the Atlanta region, ARC develops and maintains a travel demand model for a variety of uses including developing long range transportation plans and determine air quality conformity. **Table 3.1** summarizes both actual count data and model projected data in existing conditions, indicating that the model is generally reasonable in predicting traffic volumes in the Holly Springs area.

Table 3.1

Travel Demand Model and Existing Counts

Data	Holly Springs Parkway, north of Hickory Street	Hickory Street, east of Town Center
2005 GDOT Count	12,410	N/A
2005 Travel Demand Model	10,760	10,380
2010 Project Count	11,900	10,900
2010 Travel Demand Model	11,430	12,540

Establishing that the model's predictive capabilities in Holly Springs are strong, future year travel demand model output for the year 2030 was compared to the 2005 and 2010 counts as shown in **Table 3.2**.

Table 3.2

Travel Demand Model Growth

Data	Holly Springs Parkway, north of Hickory Street	Hickory Street, east of Town Center
2005 Travel Demand Model	10,760	10,380
2010 Travel Demand Model	11,430	12,540
2030 Travel Demand Model	19,240	24,490 ⁽¹⁾
2010 – 2030 Annual Growth Rate	3.4%	4.8%

(1) Model projection includes volumes on Industrial Connector which is included as a future east-west alternative to Hickory Road in the 2030 model



III – IDENTIFICATION OF FUTURE NEEDS

The model indicates very aggressive annual growth rates of 3.4 percent on Holly Springs Parkway and 4.8 percent on Hickory Street. While these rates are generally high, they are based on the general assumption that Holly Springs (as well as Cherokee County and the northern suburbs of Atlanta) will continue to aggressively grow despite the current economic downturn.

3.1.2

Historical Traffic Trends Based Growth

Georgia Department of Transportation (GDOT) historical traffic counts were analyzed in the Holly Springs area. Only one location (Count Station #0016) is located in the immediate vicinity of the town center area on Holly Springs Parkway, north of Hickory Street. Using a trend analysis of this historical data, an R^2 (a value representing the statistical strength of the trend where 75 percent or better is typically considered strong) and annual growth rate was determined, as shown in **Table 3.3**.

Table 3.3

Historical Traffic Trend Analysis

Data	Holly Springs Parkway, north of Hickory Street
2005 GDOT Count	12,410
2006 GDOT Count	12,610
2007 GDOT Count	11,990
2008 GDOT Count	11,690
2009 GDOT Count	11,710
R^2	79.2%
Growth Rate	-1.97%

Despite a strong statistical correlation, the traffic trend analysis indicates a declining growth rate, which while realistic in recent years during the economic downturn would not be

reasonable to sustain over a long period of time moving into the future.

As a result of the declining growth rate indicated by using the historical traffic trend analysis, the model growth rates shown in **Table 3.2** are most appropriate for forecasting future conditions.

3.1.3

Traffic Forecast and Planning Analysis

To develop a planning level analysis of long term future conditions, the model based growth rates were projected to a variety of future years to estimate daily traffic on the major area transportation facilities. For Holly and Palm Streets, the growth rate determined for Hickory Street was utilized. The results are shown in **Table 3.4** and **Figure 3.1**.

Table 3.4

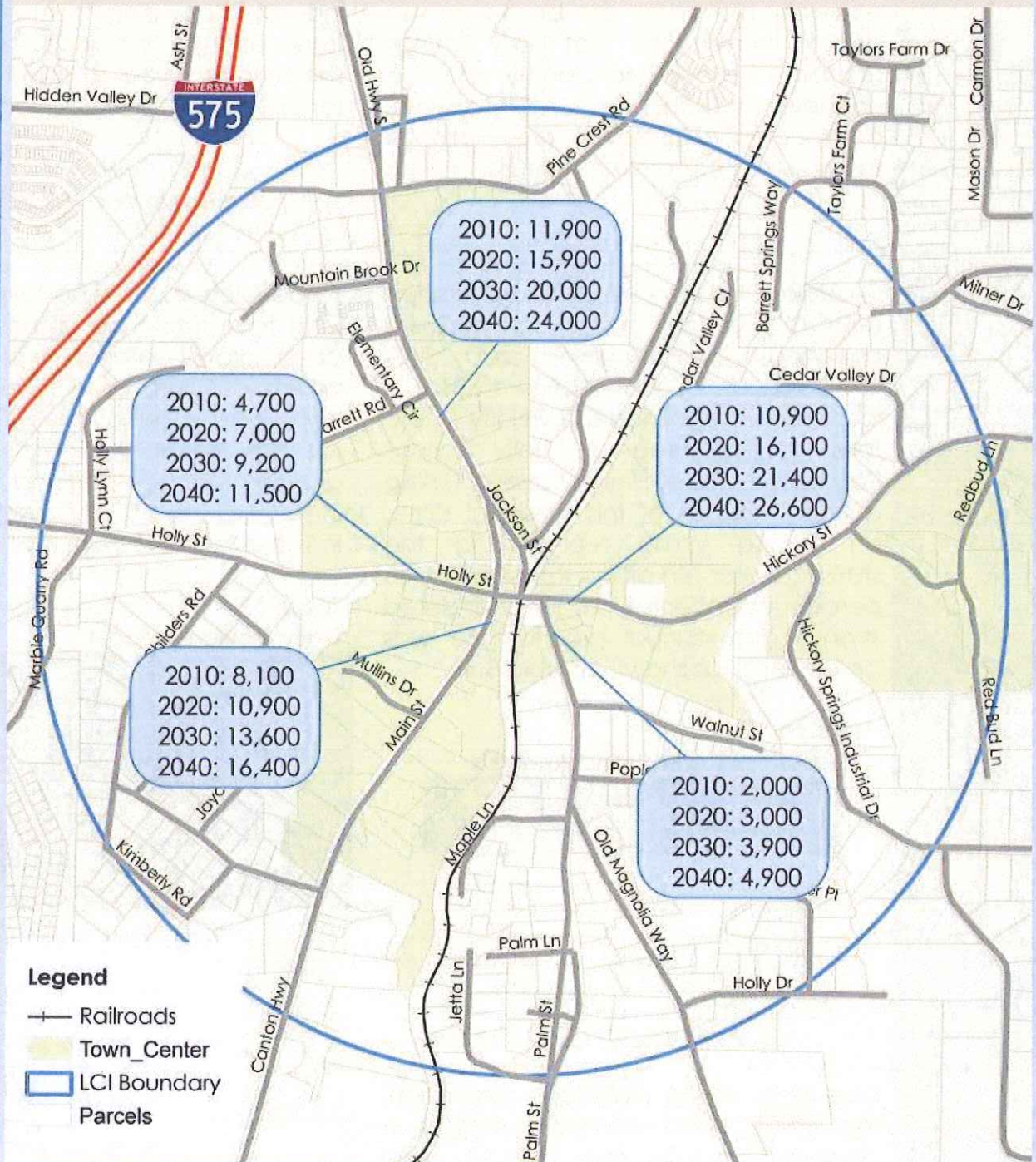
Daily Traffic Forecast

Data	Holly Springs Parkway, north of Hickory Street	Holly Springs, Parkway south of Hickory Street	Hickory Street, east of Town Center	Holly Street, west of Holly Springs Parkway	Palm Street, south of Hickory Street
2010 Traffic	11,900	8,100	10,900	4,700	2,000
2020 Traffic	15,900	10,900	16,100	7,000	3,000
2030 Traffic	20,000	13,600	21,400	9,200	3,900
2040 Traffic	24,000	16,400	26,600	11,500	4,900



III – IDENTIFICATION OF FUTURE NEEDS

FIGURE 3.1
Projected Daily Traffic Volumes





III – IDENTIFICATION OF FUTURE NEEDS

These forecasted volumes were then compared to generalized LOS thresholds developed by the Georgia Regional Transportation Authority (GRTA). These thresholds represent generalized conditions in which additional through lanes would be required to avoid a LOS of F. As shown in **Table 3.5**, if these growth rates were to sustain themselves, it is likely that widening to four lanes would be necessary to accommodate future traffic demand on Holly Springs Parkway as early as 2030 and as early as 2020 on Hickory Street.



Table 3.5
Planning Analysis of Number of Lanes Needed

Data	Holly Springs Parkway, north of Hickory Street	Holly Springs, Parkway south of Hickory Street	Hickory Street, east of Town Center	Holly Street, west of Holly Springs Parkway	Palm Street, south of Hickory Street
LOS F threshold (1)	16,000	16,000	16,000	16,000	16,000
2010 Lanes Needed	2	2	2	2	2
2020 Lanes Needed	2	2	4	2	2
2030 Lanes Needed	4	2	4	2	2
2040 Lanes Needed	4	4	4	2	2

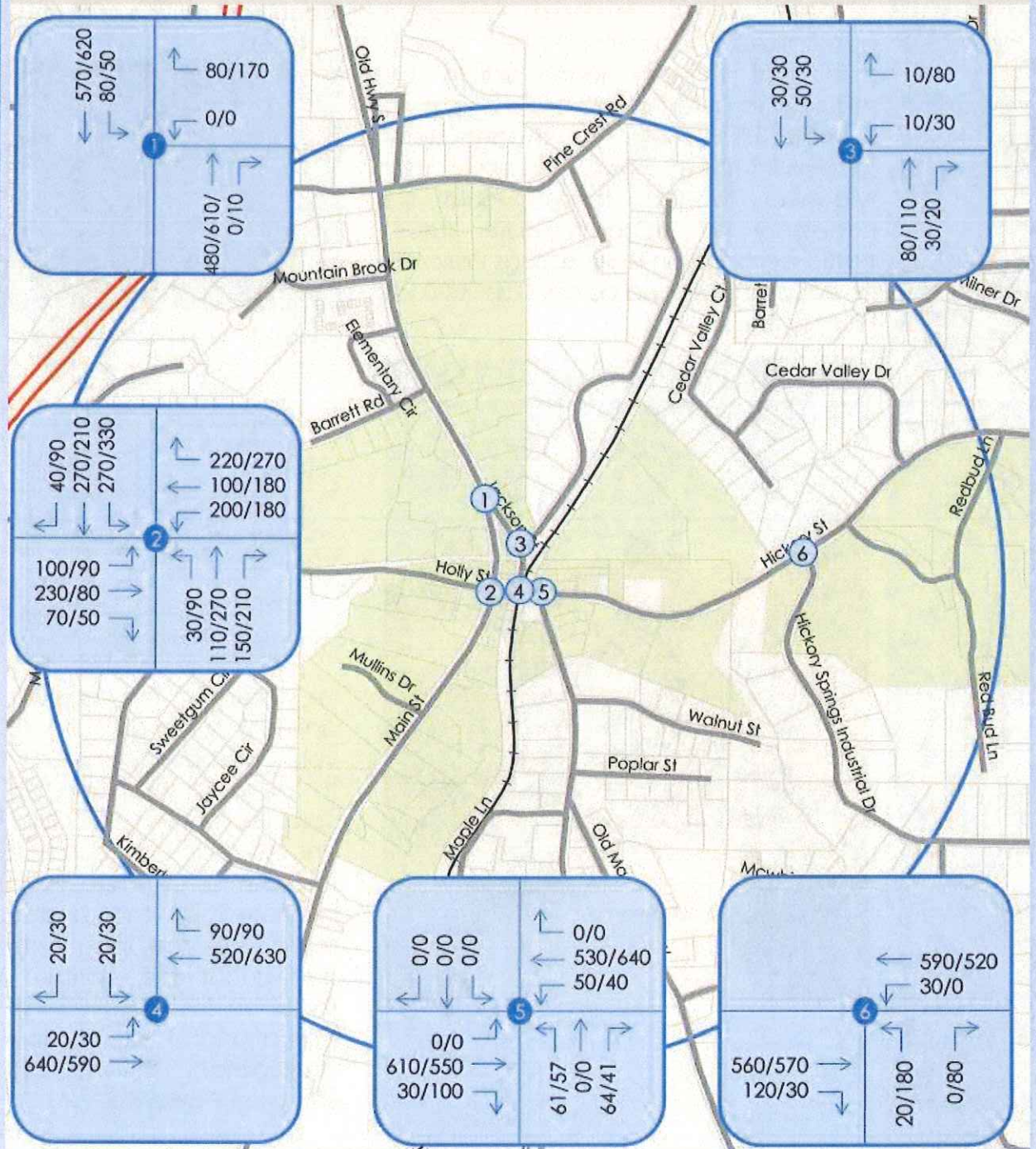
(1) Source: GRTA DRI Technical Guidelines. Threshold based on non-state major city and county roadways.

In addition, the growth rates were applied to the 2010 AM/PM peak hour volumes shown previously on **Figure 2.4** to develop AM and PM peak hour volumes for the year 2020. This year was chosen for the detailed peak hour forecast in order to isolate any issues indicated by the analysis associated more with the long term lane needs throughout the corridor and instead focus on the detailed intersection and operational issues that can be anticipated. The resulting volumes are shown in **Figure 3.2**.



III – IDENTIFICATION OF FUTURE NEEDS

FIGURE 3.2
2020 Projected AM/PM Peak Hour Volumes





III – IDENTIFICATION OF FUTURE NEEDS



3.2

Analysis of Future Conditions

As with the analysis to determine existing peak hour LOS, an analysis of 2020 conditions was conducted using Synchro 7.0. The was conducted using the existing number of lanes and intersections (i.e. no extension of Palm Street, Jackson Street remaining open) in order to prepare an assessment of the future. The LOS results are indicated in **Table 3.6**, with the correlated average delays indicated in **Table 3.7**. Raw output from Synchro is included in **Appendix B**.

Table 3.6
2020 Level of Service

Intersection	AM	PM
Holly Springs Parkway @ Hickory Street	D	F
Holly Springs Parkway @ Jackson Street Jackson Street Stop Approach	C	C
Jackson Street @ P. Rickman Industrial P. Rickman Stop Approach	B	B
Hickory Street @ Jackson Street Jackson Street Stop Approach	D	E
Hickory Street @ Palm Street Hickory Street Stop Approach Palm Street Stop Approach	N/A N/A	N/A N/A
Hickory Street @ Hickory Springs Industrial Hickory Springs Industrial Stop Approach	E	F

N/A = Intersection configuration not allowed in HCM analysis

Table 3.7

2020 Average Control Delay (sec/veh)

Intersection	AM	PM
Holly Springs Parkway @ Hickory Street	47.2	149.6
Holly Springs Parkway @ Jackson Street Jackson Street Stop Approach	15.2	20.0
Jackson Street @ P. Rickman Industrial P. Rickman Stop Approach	10.2	11.2
Hickory Street @ Jackson Street Jackson Street Stop Approach	29.4	39.3
Hickory Street @ Palm Street Hickory Street Stop Approach Palm Street Stop Approach	N/A N/A	N/A N/A
Hickory Street @ Hickory Springs Industrial Hickory Springs Industrial Stop Approach	43.8	363.6

N/A = Intersection configuration not allowed in HCM analysis

The results indicate a general worsening of traffic conditions with several instances of LOS E or F. However, at the unsignalized intersections the LOS E and F results appear to be due mostly to the previously mentioned limitation in the analysis assuming uniform gaps in traffic. However, the congestion predicted at the signalized intersection of Holly Springs Parkway and Hickory Street does appear to be reasonably estimated due to the combination of the split phase operation (eastbound and westbound being permitted in separate phases) of the signal a particularly high southbound left turning movement that would typically require dual turn lanes. Without a downstream widening of Hickory Street (which would be challenging due to the proximity of the GNRR crossing and the railroad depot), such an improvement could not be installed. This LOS result underscores the long term need to widen Hickory Street and/or provide an alternative east-west movement around the town center area (i.e. the "industrial connector").



III – IDENTIFICATION OF FUTURE NEEDS

3.3

Town Center Considerations

The aggressive growth rates and the manner in which they were developed (using the travel demand model) would typically indicate that general traffic growth anticipated with the town center is already incorporated into the traffic forecast. Likewise, as the town center concept evolves and specific site plans and development expectations are made for the site, the site's developer may be required to perform a detailed traffic analysis to determine the specific short-term impacts of the site. To avoid speculation of what will eventually occur at the site, such an analysis is not replicated for this study. However, by the use of the aggressive growth rates throughout the study area, the general impacts likely to be associated with the town center are incorporated into planning the transportation needs of the major roadways surrounding the town center.

However, there are some general site and access needs that are relevant regardless of the outcome of development in the town center. As developed in the previous planning efforts relating to the town center, there are a variety of considerations that should be undertaken in developing the site.

Among the most important considerations is the use of a 'grid' network of roadways internal to the town center. While such a grid would be relatively small, it will allow for

transportation opportunities within the town center – in particular, such a system will minimize the possibility of traffic having to utilize Hickory Street to travel from one side of the town center to another.



Vehicular access to the site may also include a variety of options. The Palm Street extension suggested in Section 2.4 is a logical tie-in location for the main vehicular access to the town center. Depending on the traffic generated specifically by the site, a four way intersection with Hickory Street to the east and west, Palm Street to the south, and the town center to the north may require a traffic signal or roundabout treatment. While a traffic signal would be the typical choice for such an intersection, the roundabout (despite some initial unease in the community) may be a more effective



III – IDENTIFICATION OF FUTURE NEEDS

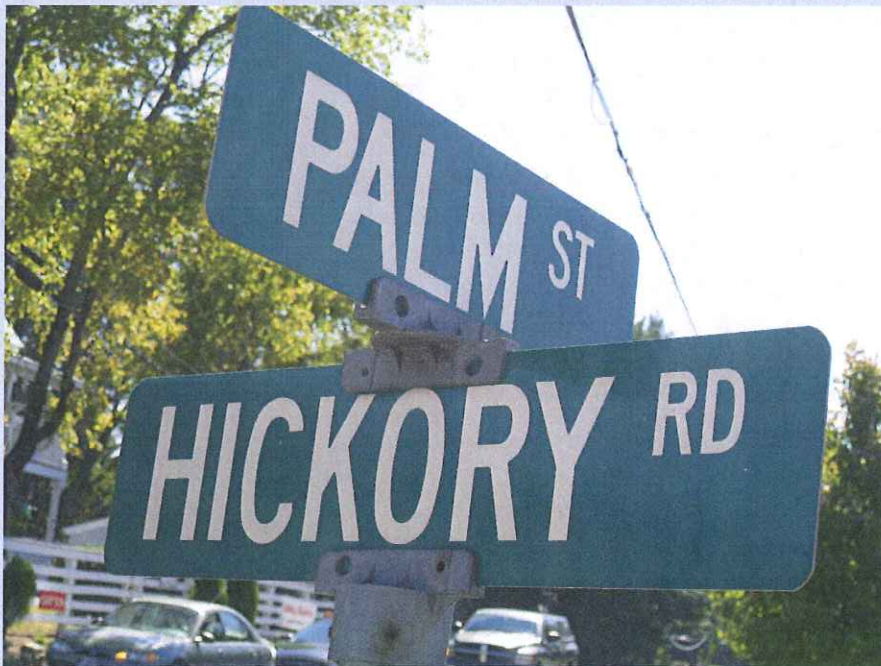
option in addressing traffic congestion and could act as a gateway in the town center. Additional vehicular access into the town center from Hickory Street should be considered carefully. While several additional access points from Hickory Street would reinforce an on-site 'grid' network, a series of several closely spaced intersections could create safety and congestion issues along Hickory Street. In short, the goal should be to seek a balance between accessibility to the site and maintaining safe and efficient traffic flow on Hickory Street.

A particular location to not provide vehicular access to the town center that has been included in several previous conceptions of the town center is directly across from Palm Street at Brackett Plaza. While vehicular access will likely need to be retained to the Signature Walk at Brackett Plaza and existing business, providing full access to the town center would undo

any benefit derived from limiting access to Palm Street at its current location adjacent to the GNRR crossing.

Additionally, providing multimodal access to the town center may be critical to its success. As envisioned by the community, the town center will include a variety of different land uses utilizing urban design principles that promote walking and biking within in addition to the possible use of recreational space on the site. By providing walking and biking options to the site that can connect to surrounding areas of Holly Springs, the site's viability and relationship to the larger community can be reinforced. Additionally, this can encourage Holly Springs residents to not use their vehicles to access the town center, which cumulatively can help with traffic congestion concerns. Likewise, if the town center ends up hosting events such as concerts, outdoor movies, and festivals (like several other Atlanta

region town centers), providing means for local residents to access the town center without having to use their vehicle will certainly reduce congestion associated with such events in addition to limiting the parking capacity needed in the town center area.





III – IDENTIFICATION OF FUTURE NEEDS

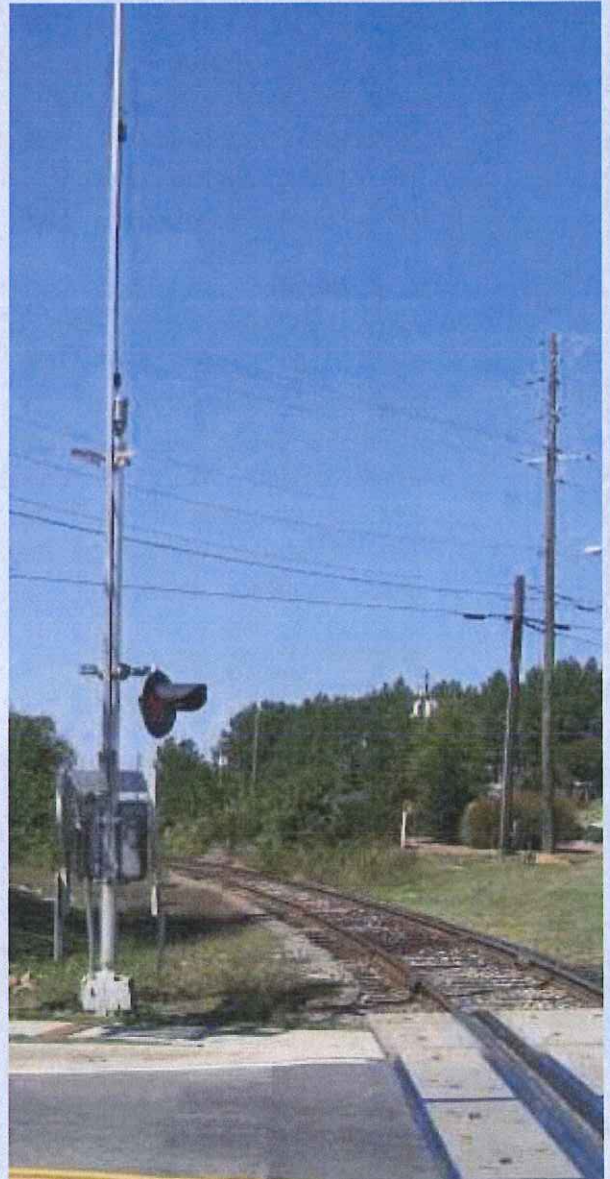
3.4

Future Transportation Needs

Future transportation needs in the study area include both mid-term and long-term needs. Mid-term needs are those that will directly impact the town center's site planning and access as documented in **Section 3.3**. These include:

- Developing an on-site "grid" network
- Providing multi-modal transportation access to the site
- Providing vehicular access to the site

Long term transportation needs in the study area will likely include addressing general traffic growth in the town center area. Analysis indicates that should traffic grow aggressively in the future, there will likely be a need to widen both Holly Springs Parkway and Hickory Street from two to four lanes. Likewise, the ongoing need for the 'industrial connector' will be significantly stronger should Hickory Street traffic grow as projected. In fact, the current at-grade crossing on Hickory Street at the GNRR will likely continue to be a challenge even if some of the existing needs are addressed. If Hickory Street does need to be widened in the future, a grade-separated 'industrial connector' that would act as an extension of Hickory Street could be considered as a phase of that overall project. Additionally, the intersection of Holly Springs Parkway and Hickory Street is anticipated to operate under increasingly congested conditions which may be mitigated by some combination of widening Hickory Street and/or constructing the "Industrial Connector".





IV - STAKEHOLDER ENGAGEMENT

To gain a better understanding of the day to day transportation issues in Holly Springs and to vet recommendations, a stakeholder group was developed by the City of Holly Springs. The stakeholder engagement effort included two stakeholder meetings and one-on-one interviews with select stakeholders. While meeting and interview notes are included in **Appendix D**, the following is a summary of the effort. Please note that the names of stakeholders spoken to in the stakeholder interviews and meetings are not included in order to protect any desired anonymity of their comments.

4.1

Stakeholder Meetings

Stakeholder meetings were held in the evenings on two occasions: Thursday, February 17, 2011 and Thursday, March 31, 2011. Each stakeholder meeting included a short presentation summarizing the context, goals, and methods used for the study. However, the majority of meeting time was dedicated to a group dialogue about the transportation issues in Holly Springs.

Stakeholder Meeting #1

At the time of the first stakeholder meeting, the existing needs analysis had been conducted and the future needs analysis had begun. Therefore the discussion focused on both existing and future needs as well as tentative solutions. In general, the stakeholder group reinforced the ideas developed by the concept team to address Jackson Street and Hickory Street issues. Likewise, a long discussion of 'industrial connector' and its relationship to the

town center was discussed. The general consensus was that while the 'industrial connector' is needed, challenges in its implementation would likely require the project to be incorporated into the later phases of the plan. Additional discussion focused on multimodal transportation improvements and their appropriateness in Holly Springs. Their direct correlation to developing the town center was reinforced but there were some concerns within the group about the overall appropriateness of implementing multimodal facilities throughout the community.

Stakeholder Meeting #2

At the second meeting, the majority of project work had been completed (including the stakeholder interviews documented in **Section 4.2**) and the discussion focused mostly on preliminary recommendations. As part of the discussion, the group generally agreed that the best short term projects to pursue would be the Jackson Street closure/P. Rickman Industrial access and Palm Street extension. Additional discussion focused again on the long term need to implement the industrial connector as well as the long term needs for Holly Springs Parkway and Hickory Street.

Additional discussion focused on the town center itself and establishing and confirming the goals of the community. There was some stakeholder concern due to the current economic condition and how it could affect the eventual use of the site.



IV - STAKEHOLDER ENGAGEMENT

4.2

Stakeholder Interviews

One-on-one stakeholder interviews were conducted beginning the week of March 14, 2011 and included a set of pre-developed questions that were sent to each interviewee prior to the interview. The questions were:

- 1) Which of the proposed projects would best serve as a catalyst for development?*
- 2) Which of the proposed projects is critical to development of the Town Center?*
- 3) What barriers to project implementation are anticipated?*
- 4) How do these projects rank within other community priorities?*
- 5) To reach as broad an audience as possible, who should be involved in the study that could otherwise be overlooked?*
- 6) Who may be opposed to the project(s) and why?*
- 7) What would you like to see as an outcome of the Holly Springs Town Center Transportation Study?*
- 8) What other transportation projects should be considered?*

The interviews were conducted by telephone at the stakeholders' convenience and were used to supplement the stakeholder meetings. In general, the stakeholders were supportive of the study team's ideas with many ranking either the Palm Street extension or 'industrial connector' as the largest priority. Some concern was expressed regarding the vision for the town center site, which was subsequently clarified at the second stakeholder meeting.





V - RECOMMENDATIONS

As suggested throughout the report, the recommendations were developed with a combination of professional observations (site visits), technical analysis, and stakeholder engagement. The transportation needs were developed into projects and vetted for general feasibility in addition to any stakeholder concerns.

5.1

Project Recommendation Timeframe

Table 5.1 summarizes each project and a relative timeframe for implementation given the technical assessment, relative ease of implementation, and stakeholder concerns. The projects are also depicted on **Figure 5.1**. The table and figure are followed by a summary of each project recommendation.

Table 5.1

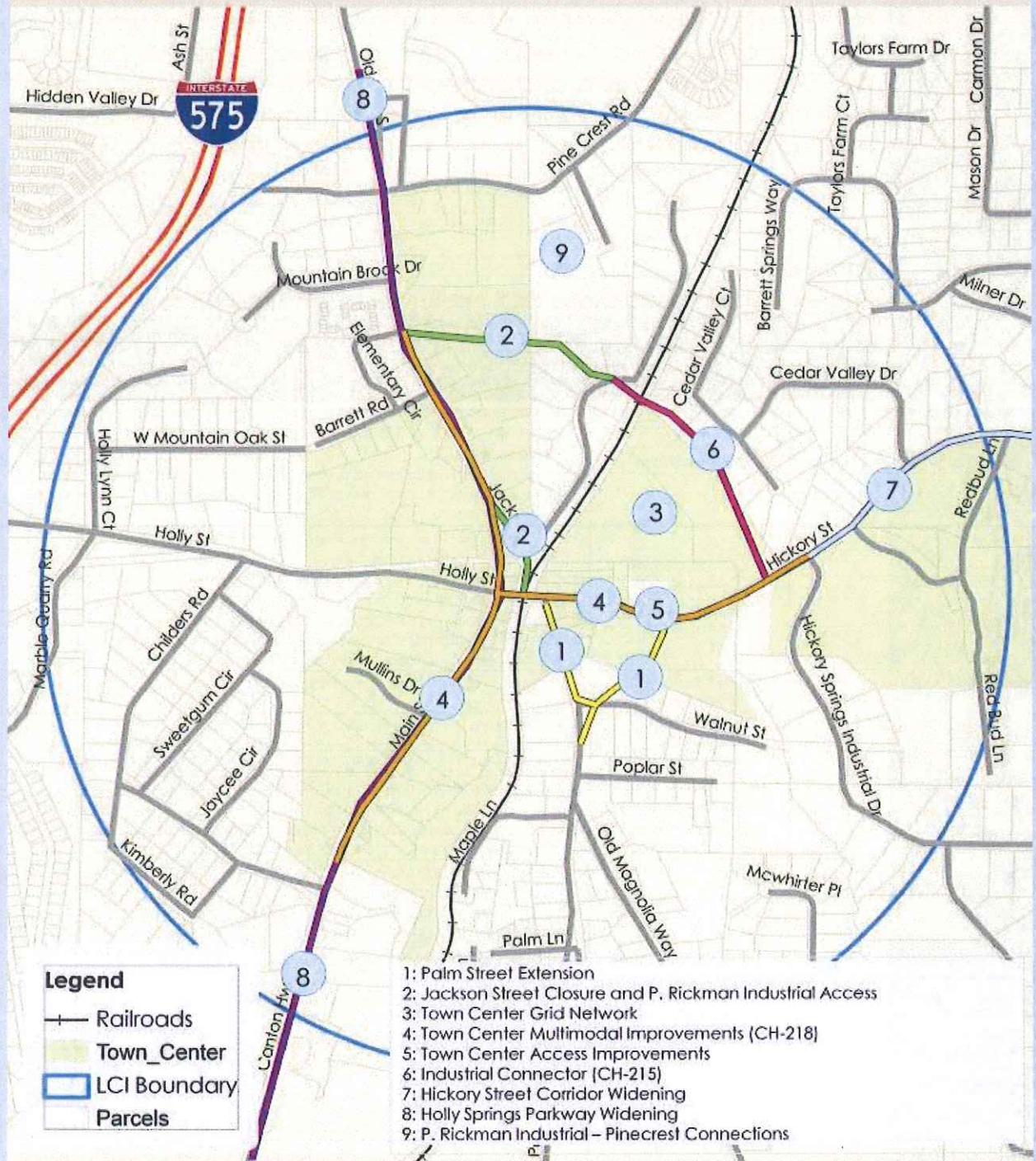
Project Recommendations and Implementation Timeframe

Project ID	Project Title	Description	Implementation Timeframe		
			Short-Term	Mid-Term	Long-Term
1	Palm Street Extension	<ul style="list-style-type: none"> Limit access to Palm Street at Hickory Street through either a right-in/right-out modification or elimination of access altogether Replace existing full access to Palm Street by extending Palm Street eastward (away from the GNRR crossing) to a new intersection on Hickory Street 	•		
2	Jackson Street Closure and P. Rickman Industrial Access	<ul style="list-style-type: none"> Close access to Jackson Street from Holly Springs Parkway and Hickory Street Replace existing access with a new roadway connection from P. Rickman Industrial to Holly Springs Parkway Coordinate with potential other phases of project including Industrial Connector (project #6) and Hickory Street Corridor widening (project #9) 	•		
3	Town Center Grid Network	<ul style="list-style-type: none"> As town center develops, utilize an internal grid network of roadways 		•	
4 / CH-218	Town Center Multimodal Improvements	<ul style="list-style-type: none"> Develop multimodal access to the town center Coordinate as appropriate with previously planned ARC project CH-218 and Trail Masterplan recommendations 		•	
5	Town Center Access Improvements	<ul style="list-style-type: none"> Provide vehicular access to the town center at select locations along Hickory Street Position new intersection with Palm Street extension as the major entrance into the town center 		•	
6 / CH-215	Industrial Connector	<ul style="list-style-type: none"> Provide a new grade-separation over the GNRR in order to alleviate Hickory Street Coordinate with potential other phases of project include P. Rickman Industrial access (project #2) and Hickory Street Corridor widening (project #7) 			•
7	Hickory Street Corridor Widening	<ul style="list-style-type: none"> Widen Hickory Street from Holly Springs to Hickory Flat Coordinate with potential other phases of project include P. Rickman Industrial access (project #2) and Industrial Connector (project #6) 			•
8	Holly Springs Parkway Widening	<ul style="list-style-type: none"> Widen Holly Springs Parkway from current four lane section south of I-575 to Hickory Street/Industrial Connector or current four lane section north of Sixes Road 			•
9	P. Rickman Industrial – Pinecrest Connections	<ul style="list-style-type: none"> Develop a grid network in the area bounded by Holly Springs Parkway to the west, P. Rickman Industrial to the east and south, and Pinecrest Road to the north 			•



V - RECOMMENDATIONS

FIGURE 5.1
Recommended Projects



This map is for planning purposes only. The transportation projects are conceptual in nature and are not intended to indicate exact alignments or locations.



V - RECOMMENDATIONS

Project #1 Palm Street extension

The Palm Street extension project would realign Palm Street south of Hickory Street so that it intersects Hickory Street east of the fire station (and away from the GNRR crossing and Holly Springs Parkway). The roadway would include one lane in each direction and sidewalks on both sides of the street. Initially, traffic control on Hickory Street could most likely under a free-flow condition in both directions with a stop control on Palm Street approaching northbound. However, at some point in the future signalization could be necessary especially if this new intersection would serve as the main vehicular access into the town center (see Project #5). The existing part of Palm Street that currently intersects Hickory Street immediately east of the GNRR crossing would subsequently be modified to discourage through traffic. A variety of different strategies could be used including:

- Traffic calming
- Modifying the current intersection to a right-in/right-out use only
- Closing direct access to Hickory Street

Due to the intended short-term nature of this project, a preliminary concept drawing was developed to gauge the feasibility of implementing the project. This drawing took into account the effect of speed on the roadway curvature, site distances at the intersections, and attempted to minimize right-of-way acquisition. **Figure 5.2** depicts the preliminary concept drawing and typical section.

Project #2 Jackson Street Closure and P. Rickman Industrial Access

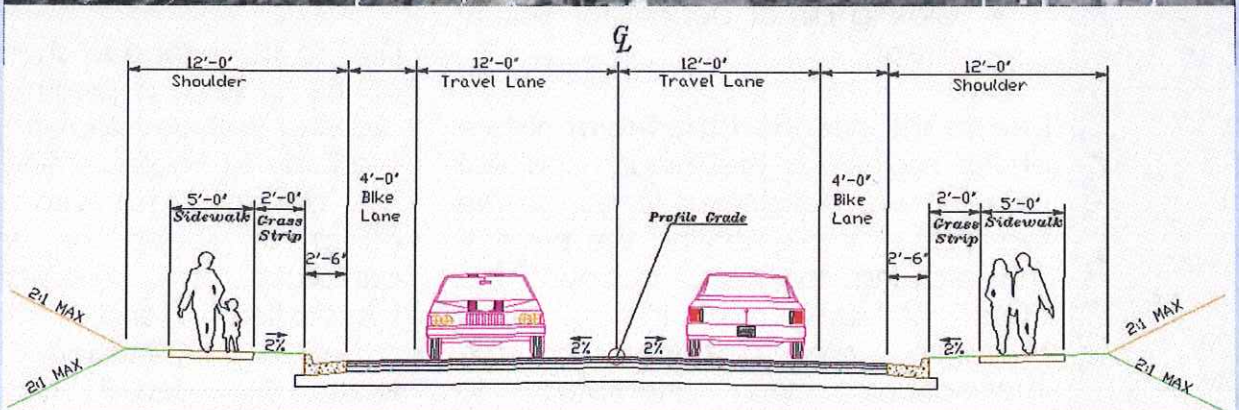
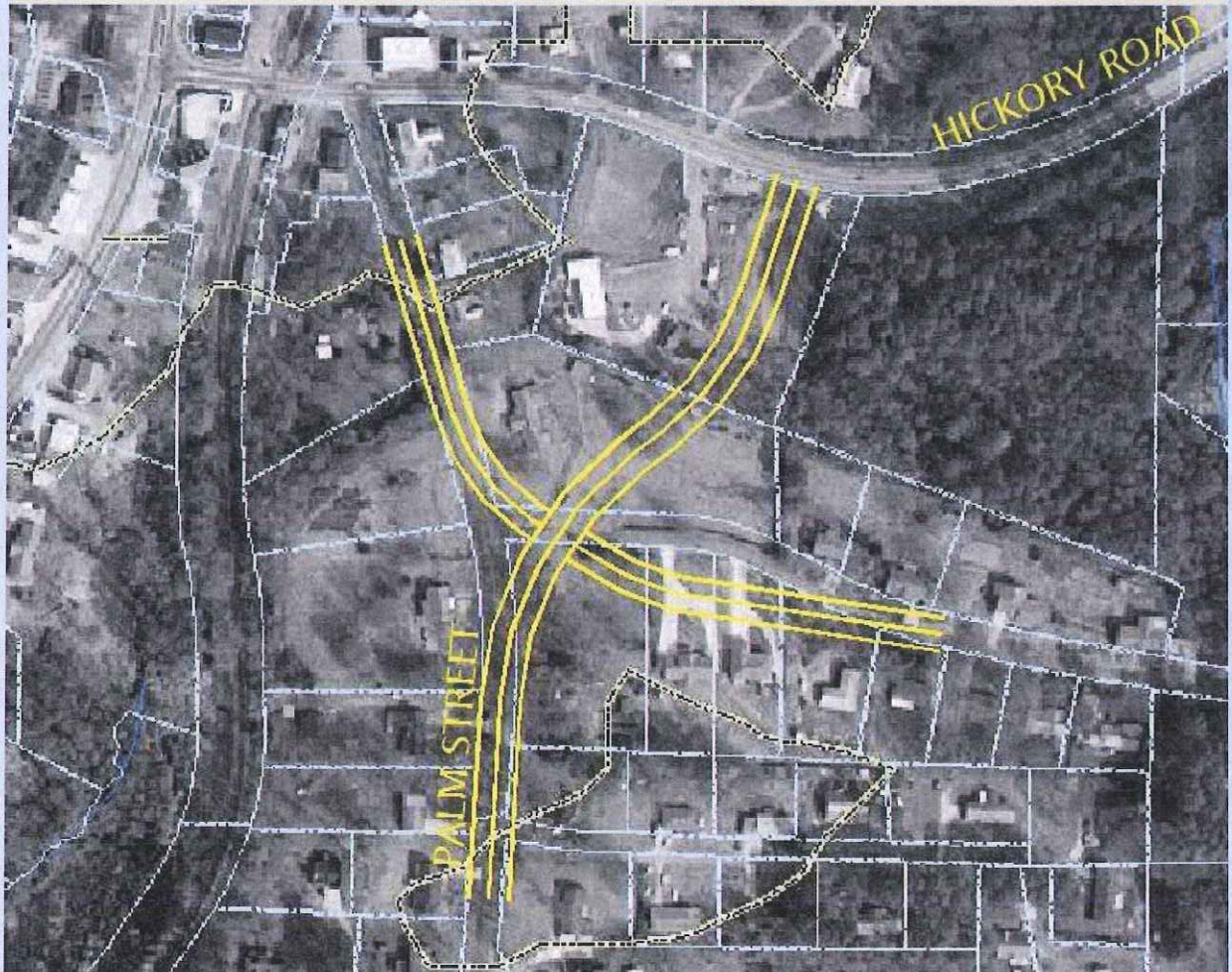
The Jackson Street closure would remove access to and from Jackson Street from both Holly Springs Parkway and Hickory Street. Initially, Jackson Street could remain open in between these intersections (with cul-de-sac treatments at the closed intersections) in order to retain access to existing businesses and residences but could eventually be closed altogether as the town center develops and properties are potentially redeveloped (as shown in the August 2008 charette drawings). In order to maintain access to P. Rickman Industrial Drive, the Jackson Street closure would occur in coordination with the construction of a new two lane roadway providing a direct connection from Holly Springs Parkway to P. Rickman Industrial Drive. This project could potentially be considered a western phase of the Industrial Connector (Project #6, CH-215).

Due to the intended short-term nature of this project, a preliminary concept drawing was developed to gauge the feasibility of implementing the project. This drawing took into account the effect of speed on the roadway curvature, site distances at the intersections, and attempted to minimize right-of-way acquisition. **Figure 5.3** depicts the preliminary concept drawing and typical section.



V - RECOMMENDATIONS

FIGURE 5.2
Palm Street Planning Concept



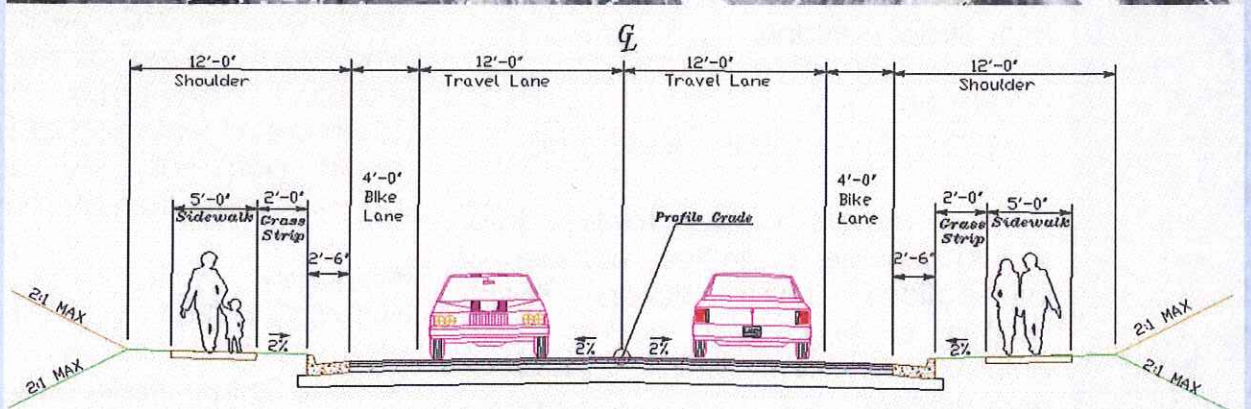
This map is for planning purposes only. The transportation projects are conceptual in nature and are not intended to indicate exact alignments or locations.



V - RECOMMENDATIONS

FIGURE 5.3

P. Rickman Industrial Access Planning Concept



This map is for planning purposes only. The transportation projects are conceptual in nature and are not intended to indicate exact alignments or locations.



V - RECOMMENDATIONS

Project #3 Town Center Grid Network

An internal town center grid network is recommended to be developed contingent with the development of the town center site. Such a network would allow for effective on-site circulation. In general, a network such as the one suggested in the August 2008 charette drawings would be appropriate.

Project #4 / CH-218 Town Center Multimodal Improvements

In order to provide a multitude of transportation opportunities to and from the town center, pedestrian and bicycle facilities should be constructed to connect the town center with the surrounding community. Several previously planned projects meet the spirit of this concept including the recommendations of the Trail Masterplan as well as ARC Project CH-218. In coordination with the town center development, an appropriate first phase could be to provide a multi-use path parallel to the Hickory and Holly Street corridors.

Project #5 Town Center Access Improvements

Vehicle access to the town center should include a limited number of intersections along Hickory Street. Having a single full access main entrance to the town center is encouraged with an appropriate location being at the newly created Palm Street extension/Hickory Street intersection (Project #1).

Project #6 / CH-215 Industrial Connector

As an ongoing planned project, the Industrial Connector should include a grade separated crossing over the GNRR connecting Hickory Street to Holly Springs Parkway in some manner along the northeastern arc of the town center. This project could potentially tie into other recommendations included here including the connection from Holly Springs Parkway to P. Rickman Industrial (Project #2) and the Hickory Street corridor widening (Project #7).

Project #7 Hickory Street Corridor Widening

A Hickory Street corridor widening from two to four lanes could be necessary at some point in the future and plans for its eventual widening to also include bicycle and pedestrian facilities should be considered. An appropriate widening location would be from the Hickory Flat area (at SR 140) to Holly Springs Parkway. Widening the roadway at the GNRR crossing and in front of the rail depot could be challenging as well as redundant to the Industrial Connector (Project #6). Therefore, a widening of Hickory Street could potentially be considered a phase of the Industrial Connector.

Project #8 Holly Springs Parkway Widening

A Holly Springs Parkway widening from two to four lanes could also be necessary at some point in the future and should be considered. This project



V - RECOMMENDATIONS

would widen the roadway and incorporate bicycle and pedestrian facilities from its current four lane section south of I-575 to one of two termini points: the more immediate need would extend to Hickory Street (or Project #6, the Industrial Connector should it be built as an alternative to Hickory Street) while a second phase would extend to the four lane section just north of Sixes Road.

Project #9

P. Rickman Industrial – Pinecrest Connectors

In the spirit of continuing a grid system and providing connectivity, future connections should be considered as appropriate in the area bounded by Pinecrest Road to the north, P. Rickman Industrial Drive to the east and south, and Holly Springs Parkway to the west.

5.2

Project Costs and Funding

Project costs were estimated using the ARC planning Level Cost Estimation Tool or previous costing efforts (as in the case for the previously planned ARC projects CH-215 and CH-218 that dovetail with the recommendations of this study). Assumptions were made for implementation schedule in order to incorporate inflation rates into the estimates. The raw cost estimate sheets are provided in **Appendix E**.

Additionally, potential funding sources were identified based on the nature of each project and the types of funding each project may subsequently be eligible to receive. The cost estimates and potential funding sources are shown in **Table 5.2**.





V - RECOMMENDATIONS

Table 5.2
Project Recommendation Cost and Funding

Project ID	Project Title	Implementation Timeframe			Estimated Project Costs	Potential Funding Responsibilities
		Short-Term	Mid-Term	Long-Term		
1	Palm Street Extension	●			\$1,960,000	<ul style="list-style-type: none"> •ARC (LCI funds) •City of Holly Springs
2	Jackson Street Closure and P. Rickman Industrial Access	●			\$4,115,000	<ul style="list-style-type: none"> •ARC (LCI funds) •City of Holly Springs
3	Town Center Grid Network		●		N/A	<ul style="list-style-type: none"> •City of Holly Springs •Site Developer
4 / CH-218	Town Center Multimodal Improvements		●		\$648,081	<ul style="list-style-type: none"> •ARC (LCI funds) •City of Holly Springs •Federal/GDOT
5	Town Center Access Improvements		●		N/A	<ul style="list-style-type: none"> •City of Holly Springs •Site Developer
6 / CH-215	Industrial Connector			●	\$8,089,200	<ul style="list-style-type: none"> •City of Holly Springs •Cherokee County
7	Hickory Street Corridor Widening			●	\$87,694,000	<ul style="list-style-type: none"> •City of Holly Springs •Cherokee County •Federal/GDOT
8	Holly Springs Parkway Widening			●	\$45,711,000	<ul style="list-style-type: none"> •City of Holly Springs •Cherokee County •Federal/GDOT
9	P. Rickman Industrial - Pinecrest Connections			●	N/A	<ul style="list-style-type: none"> •City of Holly Springs •Site Developer

N/A = Cost of project contingent on actual development plans and therefore cannot be estimated at this time
Source: ARC Planning Level Cost Estimate Tool and ARC Envision 6 Regional Transportation Plan