

# CITY OF SPRING HILL MAJOR THOROUGHFARE PLAN



**MARCH 2019  
REVISED JANUARY 2021  
PREPARED BY VOLKERT, INC.**

**VOLKERT**

## **CHAPTER 1. EXISTING CONDITIONS**

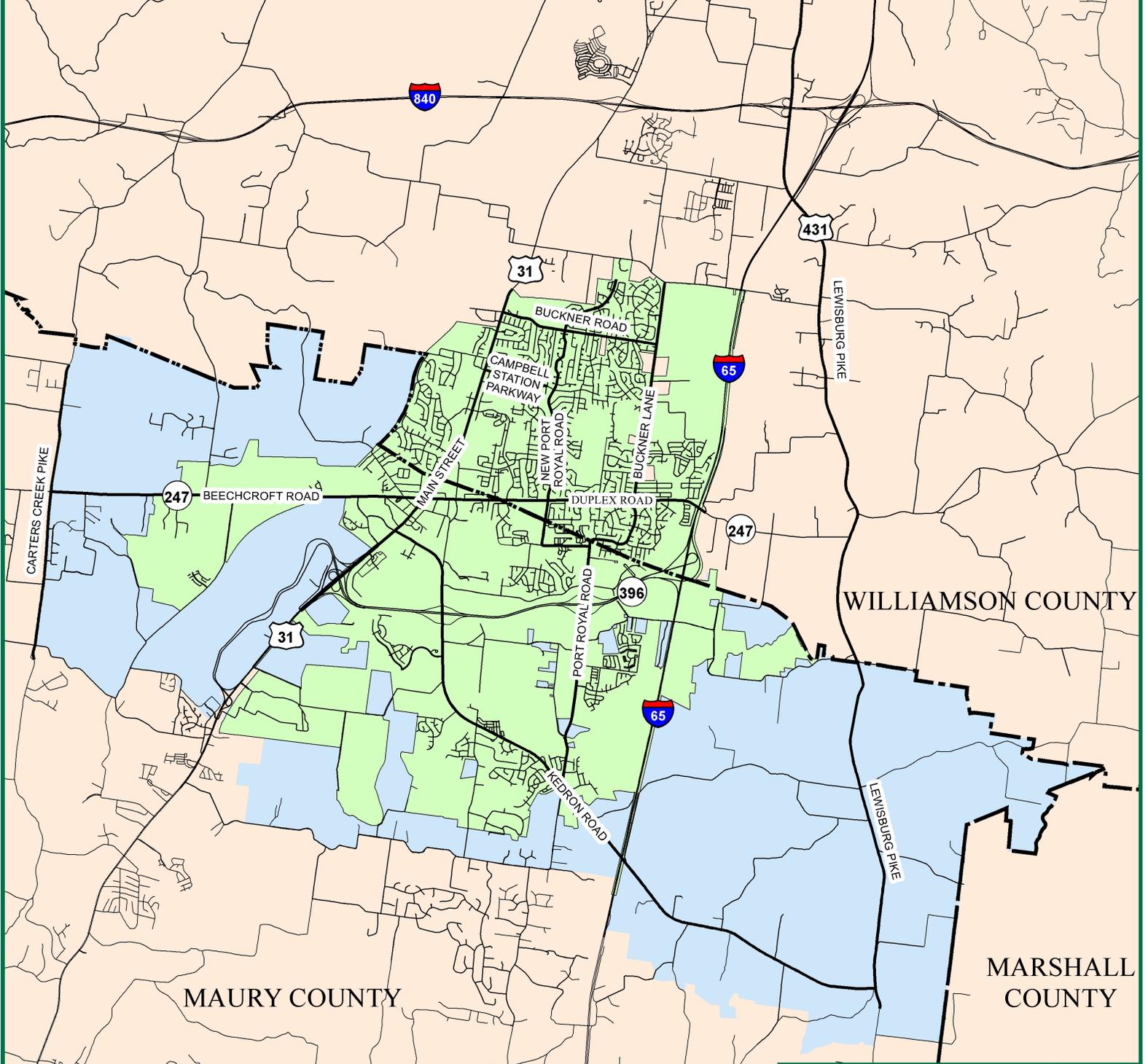
This chapter provides an overview of existing conditions within the City of Spring Hill study area. This information is the baseline data that enables City Staff, the Board of Mayor and Aldermen, the Planning Commission, City of Spring Hill Citizens, the development community, and other stakeholders to better understand the current function of the City’s transportation system and to plan for its future growth. Existing land use, population, employment, and congestion levels have all been evaluated to assess opportunities for improvement to the transportation system for Spring Hill residents. The current transportation network will be analyzed to decide which future improvements can be recommended by determining those areas in need of improvement, deficient traffic conditions, or other inadequacies.

### **STUDY AREA**



**City of Spring Hill, TN**

The study area for this Major Thoroughfare Plan includes the City Limits of Spring Hill, Tennessee. The City of Spring Hill is located in the southern portion of Williamson County and the northern portion of Maury County. Spring Hill is approximately 13 miles south of downtown Franklin and 12 miles north of downtown Columbia. A Study Area Map is shown as Figure 1.1 below. Spring Hill has an incorporated area of 26.442 square miles inside the Spring Hill city limits. US Highway 31 (Columbia Pike/Main Street) is the primary north/south route within the City and State Route 396 (Saturn Parkway) is the primary east/west route into the city from I-65. The City also has a number of Arterial and Collector Streets, which are described in greater detail below, with the rest of the street network functioning as local access roads.



Data Source: City of Spring Hill, TDOT

**Legend**

- Spring Hill Roads
- County Border
- Spring Hill City Limits
- Urban Growth Boundary



**Figure 1.1:**  
**Study Area**  
**Spring Hill City Limits**  
**Spring Hill Major**  
**Thoroughfare Plan**



### POPULATION AND EMPLOYMENT

This section highlights current population and employment data obtained from the U.S. Census Bureau, Nashville Area MPO, and the City of Spring Hill. The base year for all population and employment data utilized for this Major Thoroughfare Plan is 2010. The year 2010 is used in order to more closely correlate any transportation improvements with the Nashville Area Metropolitan Planning Organization's Long Range Transportation Plan, which also utilizes 2010 as the base year for planning purposes. However, in any instance wherein more up-to-date data is available, it is incorporated into both the Existing Conditions and Future Conditions Analyses and Reports included in this Plan.



**Campbell Station Parkway at Main Street**

The data is configured by UGB, City, and Traffic Analysis Zone (TAZ). TAZs are geographic areas defined by roadways or other physical features and represent land uses and activity centers in each defined area, which help assess and predict existing and future traffic conditions and Levels of Service (LOS).

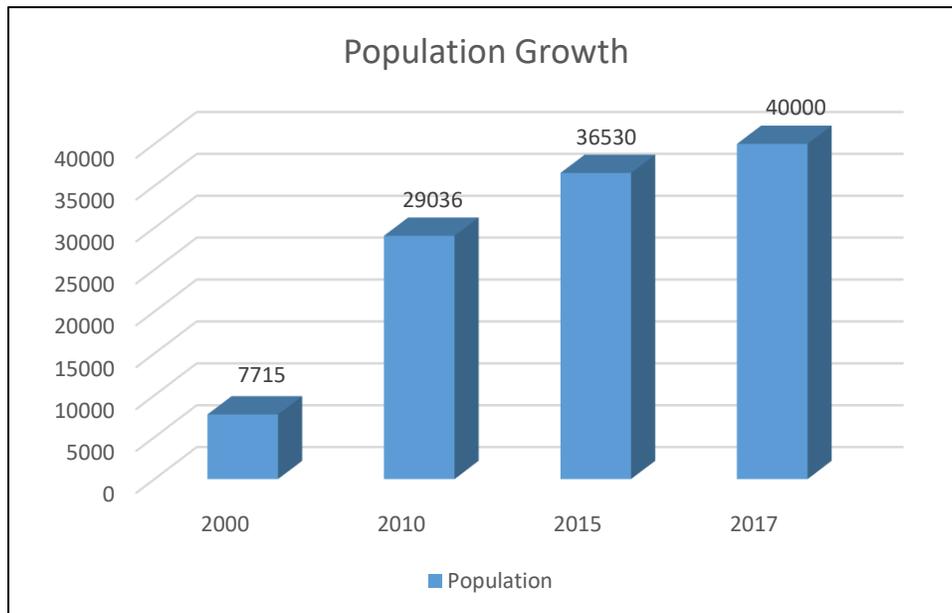
### Population

Spring Hill, due to its location and high quality of life, has experienced rapid growth in the past couple of decades. The 2000 US Census certified a population of 7,715 persons within the City of Spring Hill and the 2010 US Census certified a population of 29,036 persons within the City of Spring Hill. The population of Spring Hill was last certified at 40,436 after a special census in 2018. From the 2000 US Census to the 2018 special census, the average yearly growth rate equates to nearly 25% per year. This equates to a growth of over 11,000 persons in only eight years, indicating that the growth of the Nashville Metropolitan Statistical Area (MSA) is impacting the City of Spring Hill.

The following information focuses on the 2010 Base Year information and is drawn from the U.S. Census Bureau. It is also depicted in Figure 1. Indicative of the youthful make-up of the Town, the 2010 Median Age was 31.9. The racial and ethnic make-up of the Town is reflective of Williamson County, with a majority of the population constituted by white persons (89.1%). Hispanics are the second highest racial category (5.6%), followed by African Americans (5.4%). In 2010, there were 9,861 households in Spring Hill, with 79.9% of those being Family Households. The

Average Family Size is 3.33 persons. The owner-occupied rate in the City is high at 82.3%. While the Homeowner Vacancy Rate is low at 3.3%. The Rental Vacancy rate is 11.7%.

As seen from the U.S. Census Bureau and Special Censuses, the City of Spring Hill has experienced substantial population growth from 2000 to 2017. The City's population has quintupled from 2000 to 2017 as represented in the graph below. This level of growth puts additional strains on the City's existing transportation network and presents many challenges as the City continues to experience growth pressures.

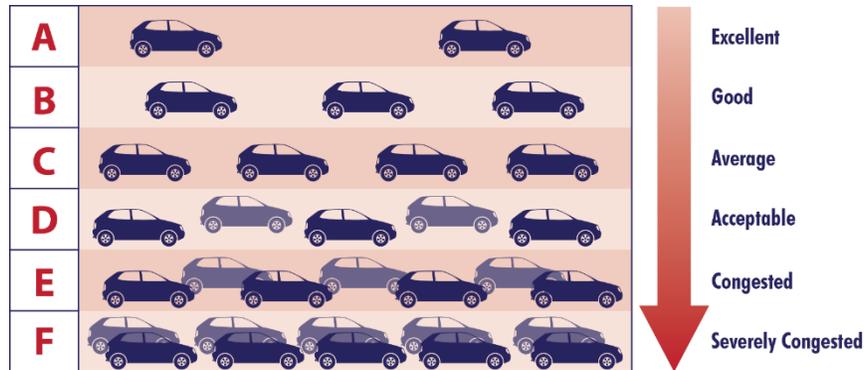


**Spring Hill Historic Population Growth 2000-2017**

### Level of Service

The increasing population and employment within the City of Spring Hill has a significant impact on commuting patterns, travel mode choice, daily traffic volumes, and levels of service on area roadways. Level of service (LOS) is a term used to represent different traffic conditions and is defined by the Highway Capacity Manual (HCM) as a “quantitative stratification of a performance measure or measures that represent quality of service”. LOS is used to describe how well traffic operates on a roadway segment, and is based on the capacity of a roadway and the actual traffic volume for the roadway. LOS utilizes a letter grading system to indicate how well a roadway operates with letters ranging from “A” to “F” – “A” being excellent and “F” failing (see the image below). LOS C is generally acceptable for typical roadway function while some communities with larger traffic volumes consider LOS D satisfactory.

Following is a graphic depiction of the Level of Service Concept:



The Highway Capacity Manual generally describes each LOS as follows:

<b>A</b>	<b>Free flow</b>
<b>B</b>	<b>Reasonably free flow</b>
<b>C</b>	<b>Stable flow</b>
<b>D</b>	<b>Approaching unstable flow</b>
<b>E</b>	<b>Unstable flow</b>
<b>F</b>	<b>Forced or breakdown flow</b>

Evaluating existing population, employment, and commuting characteristics of the Spring Hill area reveals information about the demand for transportation throughout the study area and establishes the basis for future traffic flow projections.

## LAND USE AND ZONING

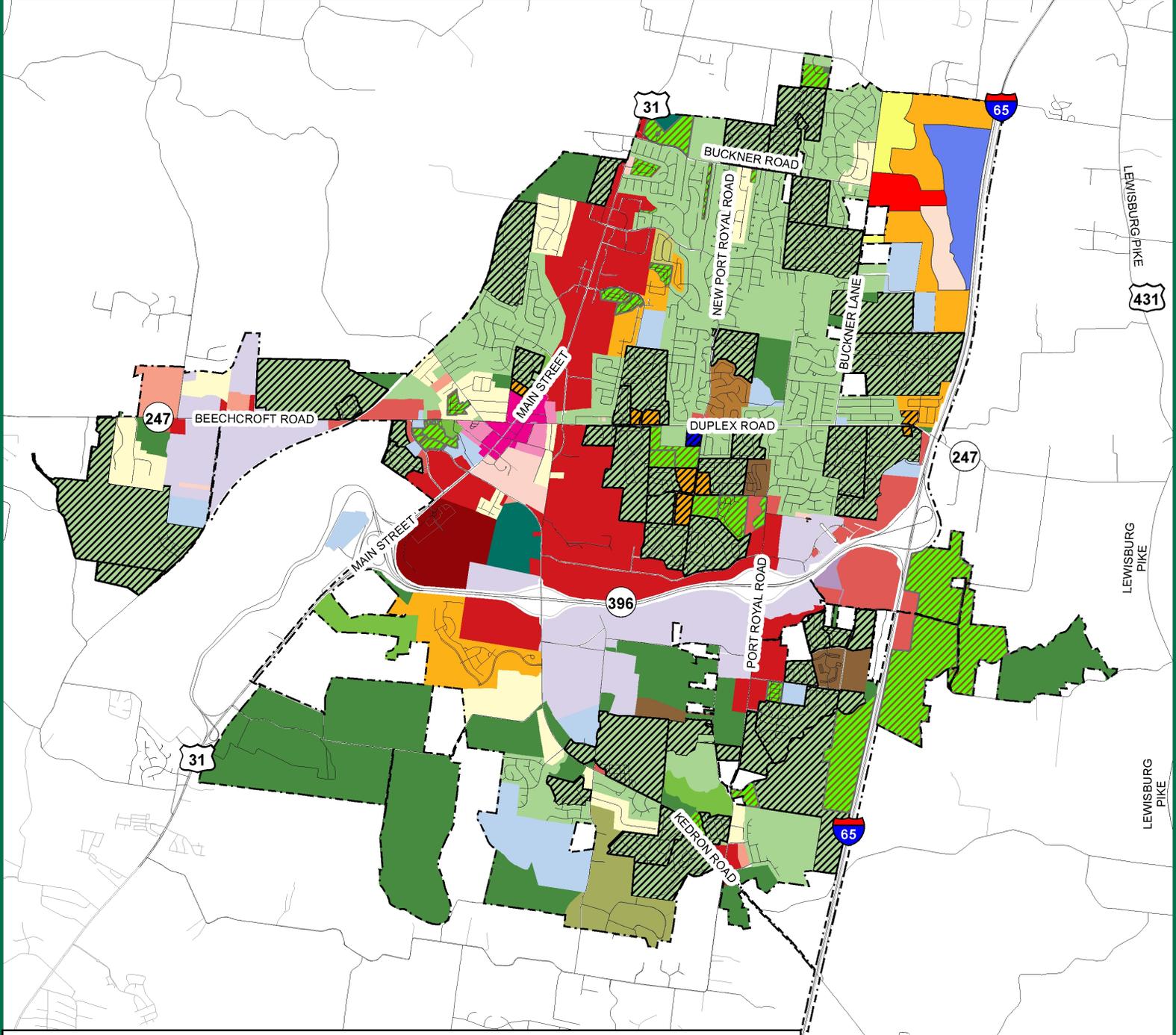
To determine the access and mobility needs of the City of Spring Hill, it is important to coordinate the City's land use and transportation plan. Future roadway extensions, new alignments, and the location and design of major intersections influence future development patterns across the City. Land use and zoning should be taken into consideration to ensure the efficient use of infrastructure such as roads, bridges, and municipal services match the land use travel patterns.



North Main Street

### Existing Zoning

Land use and growth patterns within the City of Spring Hill's UGB have played an integral role in the demand for and development of Spring Hill's transportation system. The Spring Hill **RISING: 2040** Comprehensive Plan outlines future land uses with different character areas to provide general guidance for land use decisions to shape the development growth for the next twenty years. The Future Land Use Plan incorporated in the 2040 Comprehensive Plan provides guidance for how a property should develop to support the desired community character and development pattern. Figure 1.2 below is a map of the City's Existing Zoning.



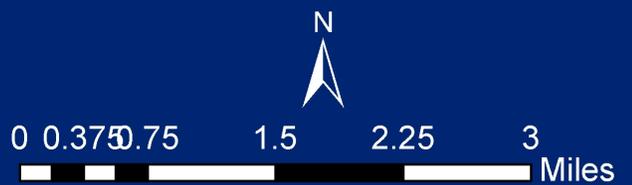
**Legend**

— Roads	C-5	IC	R-4
- - - Spring Hill City Limits	C-D-C	NA	R-5
AG	C-D-E1	PR	R-6 TND
C-1	COMM PUD	R-1	R-7
C-2	CZ	R-2	R-A
C-3	I-1	R-2 PUD	R-R
C-4	I-2	R-3	

Data Source:  
City of Spring Hill  
Unified Development Code



**Figure 1.2:**  
**Current Zoning**  
**Spring Hill Major**  
**Thoroughfare Plan**



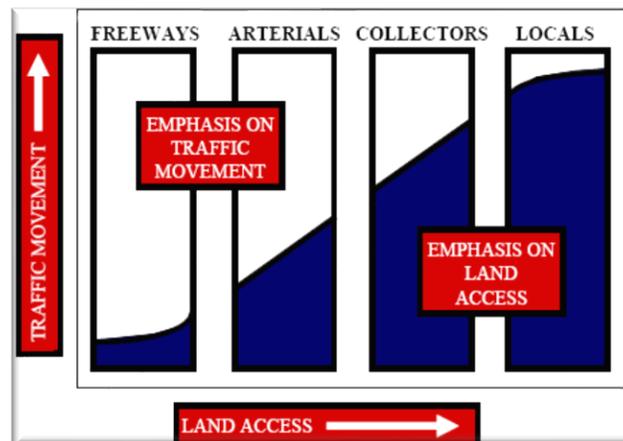
### EXISTING TRANSPORTATION SYSTEM

An inventory of the roadways and other transportation facilities was conducted to determine the roadway's classification, number of lanes and lane widths, roadway width, and pedestrian and bicycle facility availability of the existing study area. This information was incorporated into the Nashville area MPO's travel demand model.

The existing transportation facilities in the Spring Hill study area are each classified according to the amount of access and mobility the roadway provides, or how it functions. The Federal Highway Administration (FHWA) categorizes streets and highways into different functional classifications according to the character of service the roadway is intended to provide. According to the FHWA agencies should assign functional classifications based on how the roadway is operating during the current year only. The functional classification of a roadway can change as land access and traffic movement increases or decreases.

The functional classification of existing facilities is significant because it specifies the desired amount of access control or locations where vehicles can enter or leave a roadway. When there is no access control, intersecting roads or driveways may connect to the main road at any point. Typically, local roads have no access control. With partial control of access, points of access to the main road are more limited. With full control of access, connections are only allowed at major crossroads, such as interchanges along an interstate. Full or partial control of access helps reduce traffic conflicts and allows traffic to move more freely.

The schematic below shows how various street classifications relate to each other in terms of movement and access. As land access increases, traffic movement decreases on the lower classified roadways and vice versa – as land access decreases, traffic movement increases along the higher classified roads.



Functional Classification Schematic

The following is a brief description of the four primary functional classes of roadways within the study area.

### Interstates and Freeways

Interstates and Freeways are the highest classification of roadways utilized for long-distance travel. Interstates and freeways are typically a divided highway of uninterrupted flow serving major traffic movements (high-speed, high volume) for exclusive use of traffic in each direction and full control of access. Interstates and freeways typically have two or more lanes in each direction. Interstate 65 and Saturn Parkway travel through the Spring Hill study area and function as interstates and freeways.

### Arterial

A class of roads serving large traffic movements for moderate lengths of travel. Arterials emphasize a high level of mobility for through movement. While they may provide access to abutting land, their primary function is to serve traffic moving through the area; therefore arterials require a much higher level of access control than collectors or local streets. Columbia Pike, Buckner Road, Buckner Lane, Lewisburg Pike, Duplex Road, Kedron Road, and Reserve Boulevard are classified as Arterials within the study area.



Signage for Columbia Pike

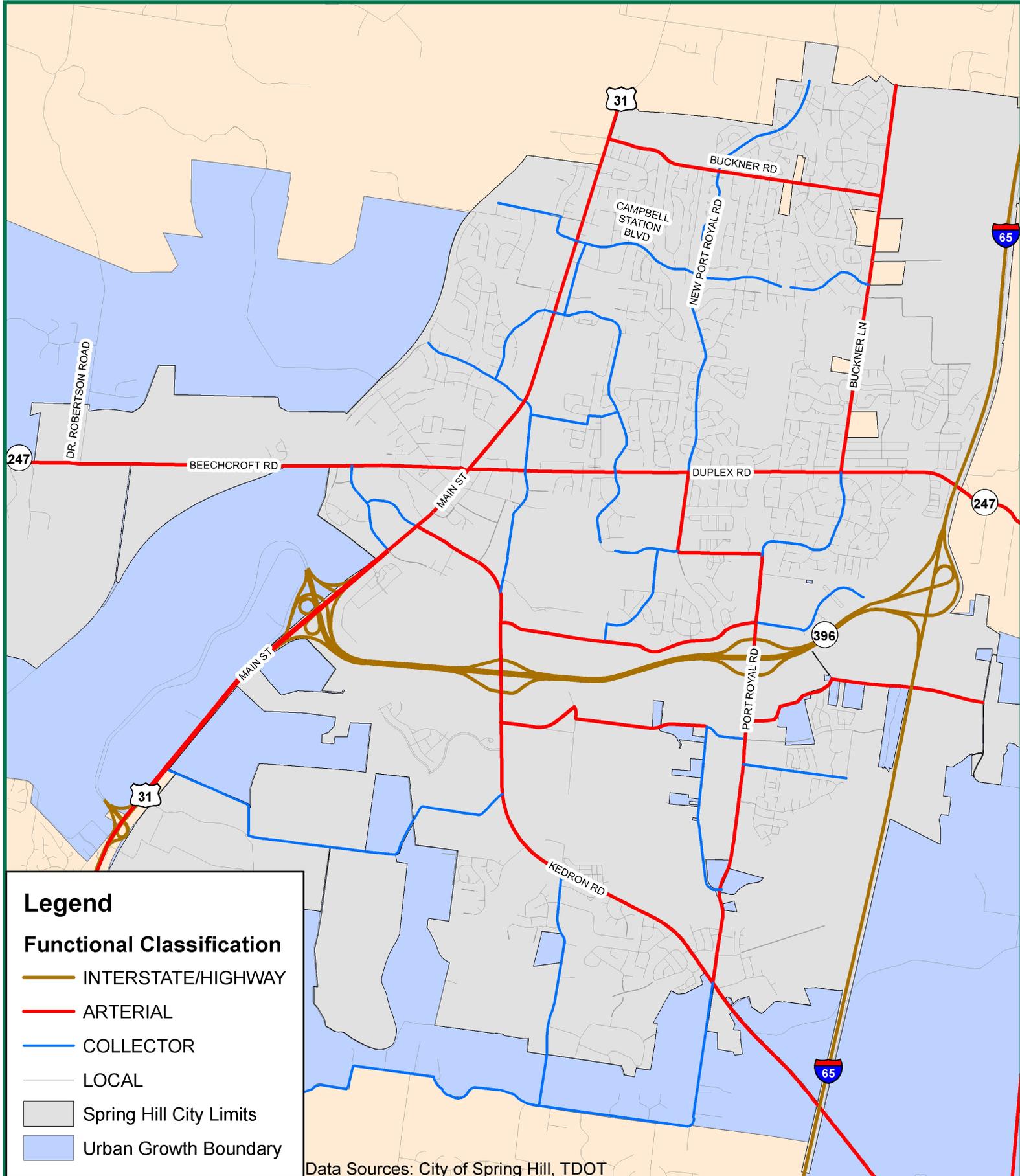
### Collector

As the name suggests, collector roadways have the primary purpose of collecting traffic from local roadways and distributing it to its destination or to an arterial roadway. Collectors offer a compromise between mobility and access. Collector streets include New Port Royal Road, Port Royal Road, Wilkes Lane, Campbell Station Parkway, Miles Johnson Parkway (note: this classification will change to arterial in the Recommended Plan section of this report), Wall Street, Commonwealth Drive, Town Center Boulevard, Ray Williams Drive, Mahlon Moore Road, Greens Mill Road, Rice Road, Denning Lane, and Derryberry Lane.

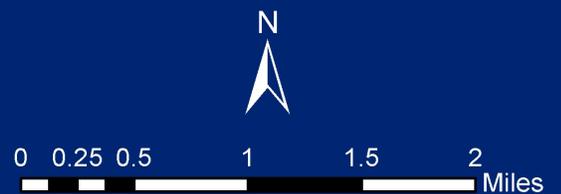
### Local

Local streets are not considered major roadways, as their primary function is to provide direct access to land with little emphasis on the movement of through traffic so are, therefore, not classified. Any roadways not listed above as an Arterial or Collector is classified as a Local Street by this Plan.

Figure 1.3 shows the functionally classified roadways, updated by the City in March 2018, within the City of Spring Hill study area.

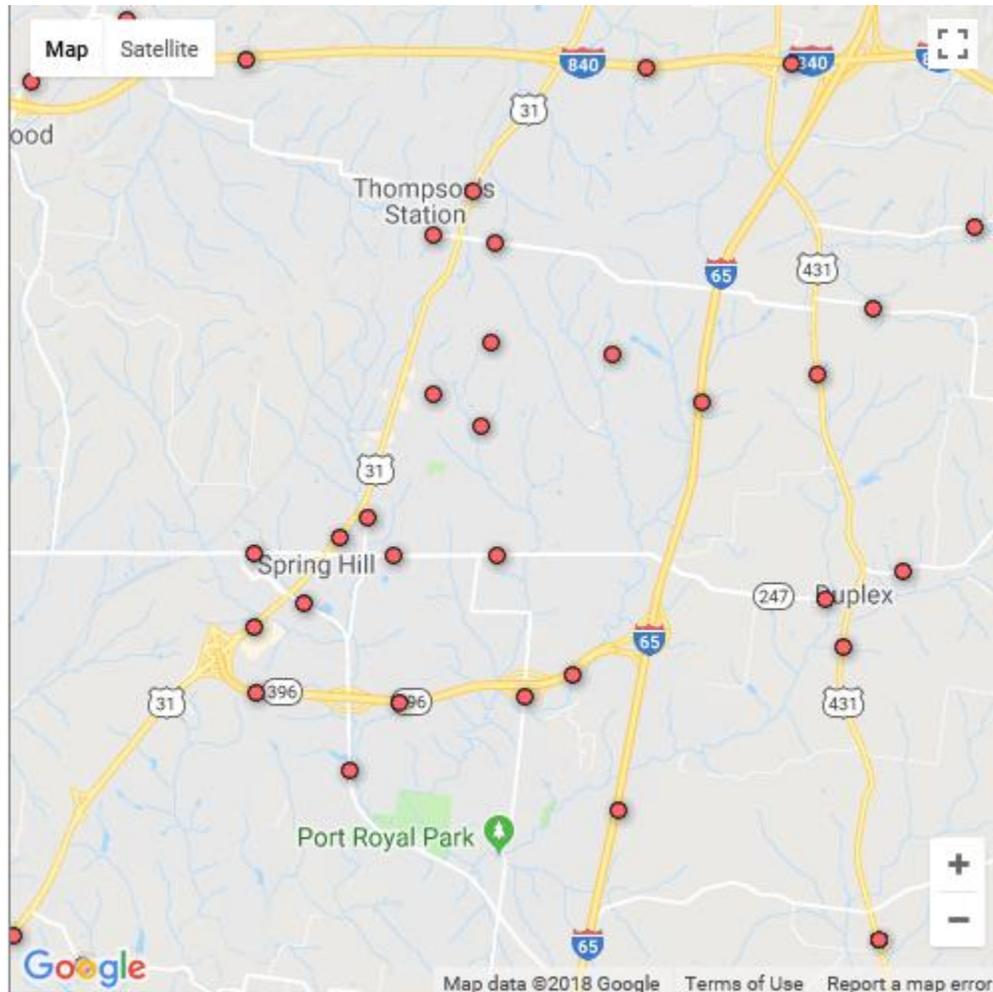


**Figure 1.3:**  
Existing Functional  
Classification  
Spring Hill Major  
Thoroughfare Plan



### Current Annual Average Daily Traffic Volumes (AADT)

The current Annual Average Daily Traffic (AADT) volumes for roadways within the study area were gathered from annual counts conducted by TDOT. There are multiple TDOT count stations located within the Spring Hill Study Area as shown on the map below.



**TDOT Map of Traffic Counts Stations**



The table below includes the TDOT Traffic Count Stations within the City of Spring Hill study area with traffic ADT data from 2012 to 2016.

Station #	Location	County	2012	2013	2014	2015	2016
000006	SR 247 – W of Spring Hill	Maury	4,627	4,886	5,816	2,970	5,583
000007	SR 6 – SW of Spring Hill	Maury	18,797	19,490	20,074	20,410	20,664
000009	SR 6 – NE of Spring Hill	Maury	15,724	15,726	16,657	16,292	16,530
000010	SR 247 – E of Spring Hill	Maury	9,652	10,024	11,176	11,511	9,252
000090	Kedron Rd – SE of Spring Hill	Maury	7,495	7,705	8,515	8,263	9,843
000126	SR 247 – W of I-65	Williamson	6,652	6,338	6,503	6,703	8,486
000170	Kedron Rd – Near Williamson Co Line	Maury	5,000	5,192	5,700	6,027	7,018
000195	I-65 – S of Saturn Pkwy	Maury	26,450	30,977	31,499	35,246	39,674
000196	SR 396 – Near Spring Hill	Maury	23,554	25,083	25,832	24,940	25,571
000202	I-65 – S of SR 840	Williamson	55,810	56,593	57,205	57,777	58,354
000222	SR 396 – W of I-65	Maury	28,268	30,186	29,296	30,176	29,913
000223	SR 396 – Near Spring Hill	Maury	21,687	23,466	22,575	23,291	22,821

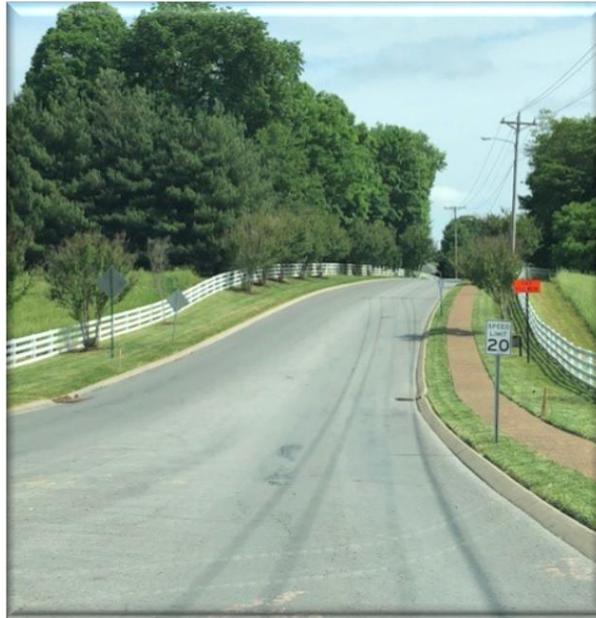
**Study Area TDOT Traffic Counts Stations from 2012 to 2016**

Local ADT Counts in the study area were provided by the City of Spring Hill with count dates ranging from 2016 to 2018. Relevant TDOT and City of Spring Hill AADT counts are shown in Figure 1.4.

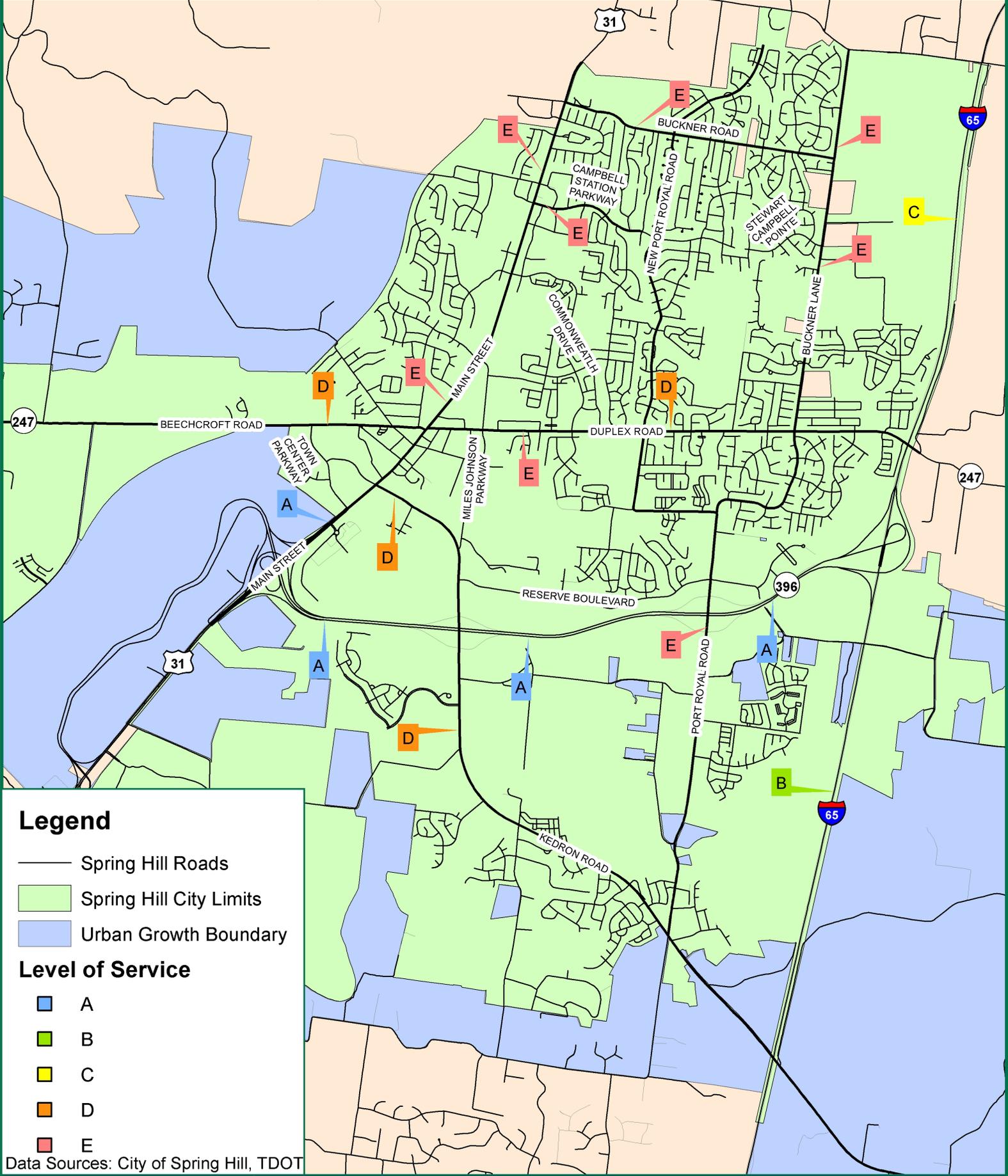


### Existing Transportation System Capacity

In order to determine the Existing LOS, TDOT and City of Spring Hill traffic volumes were analyzed according to HCM methods using the Highway Capacity Software. The existing Levels of Service for the TDOT and City counts are displayed in Figure 5. Figure 1.5 reveals that existing roadway conditions result in a range of LOS A to LOS E.



**Port Royal Road**



**Figure 1.5:**  
**Existing Levels of Service**  
**Spring Hill Major**  
**Thoroughfare Plan**



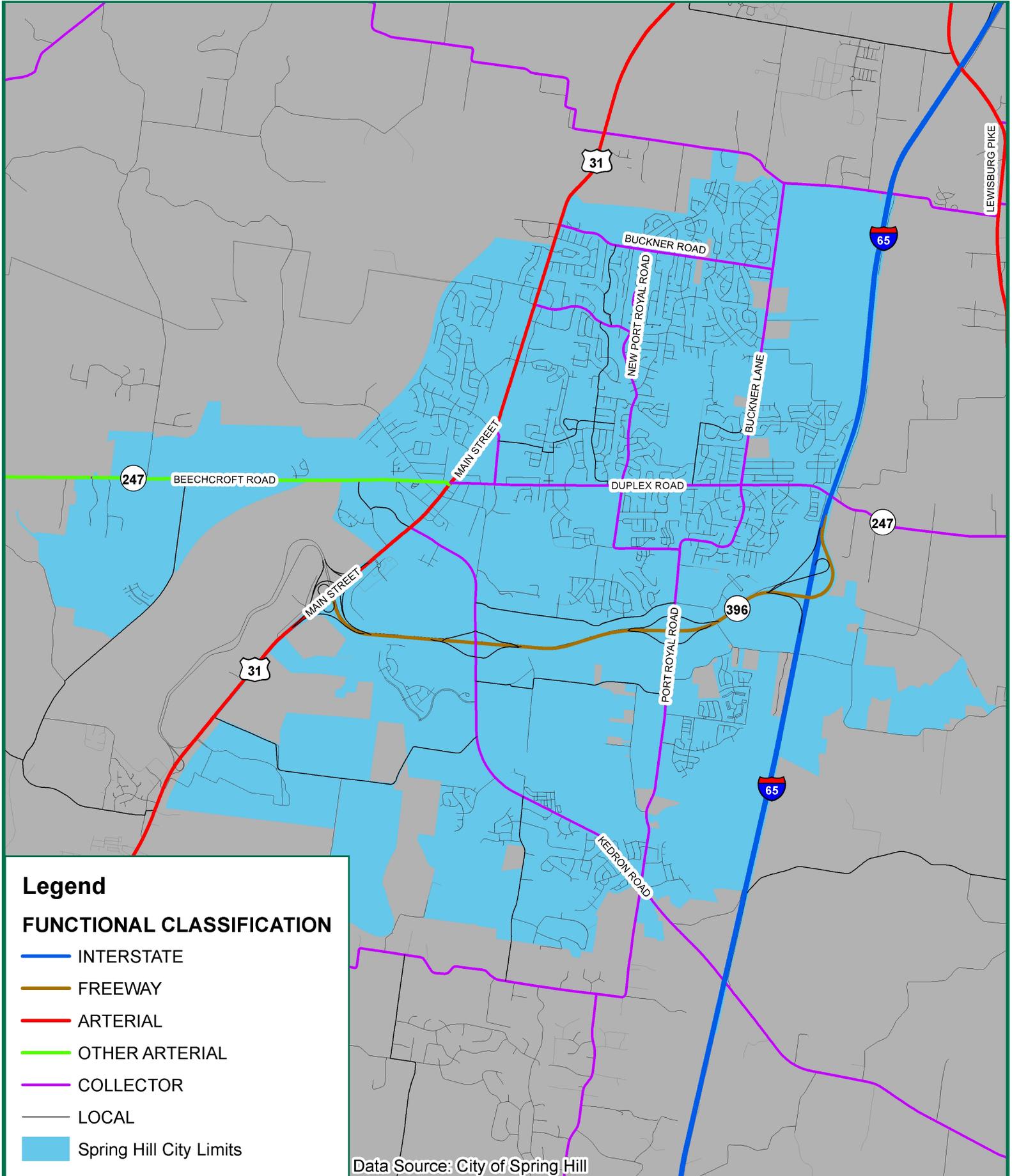
### Travel Demand Model

For the purposes of transportation planning, a travel demand model (TDM) is used to provide existing and future traffic volumes for a given year (2015 and 2040 in this case). The TDM utilizes population and employment data as its primary data inputs. The TDM is a tool developed by the Nashville Area Metropolitan Planning Organization (MPO) to model traffic volumes for a 7-county region in Middle Tennessee. The MPO also provides functional classifications for the various municipalities within its region. The City of Spring Hill is within Maury and Williamson Counties and falls within the MPO region.



Maury and Williamson Counties are within the Nashville Area MPO

The base existing functional classifications provided by the MPO for the City of Spring Hill are displayed in Figure 1.6. These MPO functional classifications are according to the Federal functional classification system under MAP-21.



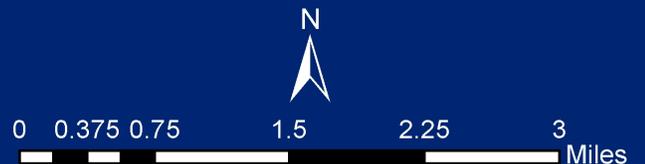
**Legend**

**FUNCTIONAL CLASSIFICATION**

- INTERSTATE
- FREEWAY
- ARTERIAL
- OTHER ARTERIAL
- COLLECTOR
- LOCAL
- Spring Hill City Limits

Data Source: City of Spring Hill

**Figure 1.6:**  
**Nashville MPO Functional**  
**Classification**  
**Spring Hill Major**  
**Thoroughfare Plan**



### Existing Transportation Plans and Other City Growth Guidelines

To get a complete understanding of Spring Hills’s existing transportation system, it was necessary to review the City’s previous Major Thoroughfare Plans, GIS data, the Spring Hill RISING: 2040 Comprehensive Plan, current development regulations, and recently approved documents.

Access Management Plans have been developed for Highway 31 (Main Street/SR 6) and Port Royal Road which set forth goals and strategies for traffic management, operations, and safety.

The City of Spring Hill’s Unified Development Code (UDC) incorporates the Zoning Ordinance, Official Zoning Map, Subdivision Regulations, and Design Review Guidelines was adopted August 20, 2018. This provides guidelines and procedures for all new construction, reconstruction, and reconfiguration of public rights-of-way. The UDC promotes the orderly development of the City in accordance with the *Spring Hill Rising 2040*.

Traffic Impact Study Requirements were established by the City of Spring in April 2018 which states an applicant shall undertake a traffic impact study if a development will generate 100 new peak hour vehicle trips on the adjacent street. This is consistent with typical municipality standards.

All of these documents and information will be reflected in future conditions analysis and recommendations.



Port Royal Road

### Existing Pedestrian Facilities and Bicycle Facilities

Existing pedestrian and bicycle facilities, such as sidewalks and paved trails, are currently limited throughout the City of Spring Hill. According to the 2015 Major Thoroughfare Plan, new developments are required to address and accommodate bicycle and pedestrian traffic. In October of 2015, the City adopted the Spring Hill Bicycle and Greenway Plan to provide recommendations and policies for future bike lanes, greenways, and multi-use pedestrian trails.

## CONCLUSION

In order to prepare for future growth in the Spring Hill area, the condition of the existing transportation system has been analyzed to determine areas in need of improvement and assess potential impacts from features such as land use, population, employment, and the condition of transportation infrastructure. In the future conditions analysis, projected traffic volumes will be analyzed to complete the picture of the transportation systems' needs. It is an in-depth understanding of the City's current and existing conditions that a more complete view of the needed improvements to Spring Hill's transportation network can be reached.



## **CHAPTER 2. FUTURE CONDITIONS**



**Buckner Lane is a major north-south route  
in Spring Hill, TN**

In order to identify the future transportation needs for the City of Spring Hill, it is necessary to analyze projected traffic volumes in comparison with the ability of the roadways to handle it. This analysis will not only indicate roads with potential congestion issues, it also helps identify corridors where additional facilities and connections could benefit the overall network. In order to accomplish this, 2040 traffic projections from the Nashville Area MPO travel demand model for the region are utilized.

Projected population and employment data for 2040 is based on the information detailed in the Existing Conditions Chapter, projections established by the MPO, and supplemented by the growth identified by the City's future land use plan.

This information is utilized along with planned roadway improvements within the study area to provide the Existing plus Committed (E+C) transportation network. The E+C transportation network utilizes the projected population and employment data and roadway improvement projects that are currently funded for construction and assigns projected traffic volumes to the various roadways in the City. This process is explained in more detail later in this chapter. Roadway segments that are projected to be congested in 2040 (LOS D or worse) are identified and highlighted. These areas within the network will be in need of improvement. Specific improvements to address the area's anticipated transportation deficiencies are discussed in the Recommendations chapter.

## NASHVILLE AREA METROPOLITAN PLANNING ORGANIZATION (MPO)

The Nashville Area Metropolitan Planning Organization (MPO) is a regional transportation planning organization that serves 7 counties within the Middle Tennessee region, including Maury and Williamson Counties and the City of Spring Hill. The MPO is responsible for the distribution and supervision of federal and state funding for transportation projects in the Nashville region. The MPO maintains a Regional Transportation Plan (RTP), a 25-year multimodal transportation vision that helps guide the investment of public funds in transportation projects to manage congestion and increase regional mobility options. On February 17, 2016, the MPO executive board adopted the 2040 Regional Transportation Plan, also known as *Middle Tennessee Connected*. The plan serves as the gateway



City of Spring Hill Town Hall

to federal transportation funds that are distributed through the U.S. DOT Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) and represents the region's top priorities for state funding. This Plan, and particularly the Recommendations chapter, will be key to ensuring that the City of Spring Hill's priority projects are consistent with the goals and objectives of the MPO while identifying strategies to best prepare the City for anticipated growth.

The MPO also maintains a Transportation Improvement Program (TIP), which consists of projects for which funding has already been allocated. The current TIP identifies projects that are programmed for the years 2017 through 2020. Projects included in the TIP are typically the most immediate projects to be completed and can include vehicular and multimodal improvements.

There are currently four projects in the TIP for the City of Spring Hill.

- TIP Project #2004-051: SR 247 (Duplex Road) Widening. This project will widen Duplex Road from two to three lanes, improve vertical and horizontal alignment, add curb-and-gutter, add sidewalk on the south side of the project and a multi-use path on the north side of the project. The City has currently added temporary signals at four previously unsignalized intersections, which will become permanent signals as part of the widening project. This project is currently under construction with an expected completion date of 2020.

- TIP Project #2017-61-032: Saturn Parkway (SR 396) Extension. This project will include the extension of Saturn Parkway (SR 396) from its existing terminus to Beechcroft Road (SR 247). A portion of SR 247 will be improved, and a structure, built to accommodate a future 5-lane, will be built over the existing railroad crossing. SR 247 from the new extension to Cleburne Road will be widened to 3-lanes. The intersection at Cleburne Road and SR 247 will be improved by including turn lanes. Additional intersection improvements will be made at SR 247 and Town Center Parkway and Stephen P. Yokich Parkway at US 31. The typical section will vary from a 2-lane arterial extending from Saturn Parkway, to a 3-lane curb-and-gutter section as it ties into Beechcroft Road (SR-247). This project is planned to begin construction in late summer/fall 2018.
- TIP Project #2009-85-012: Express Bus Service from Williamson County. This project will include express bus service from Spring Hill, Franklin, and Brentwood to Nashville and return.



Saturn Parkway

These improvement projects are shown on the map in Figure 2.1. These projects are the “committed” transportation improvements of the “Existing plus Committed” transportation network discussed later in this chapter.

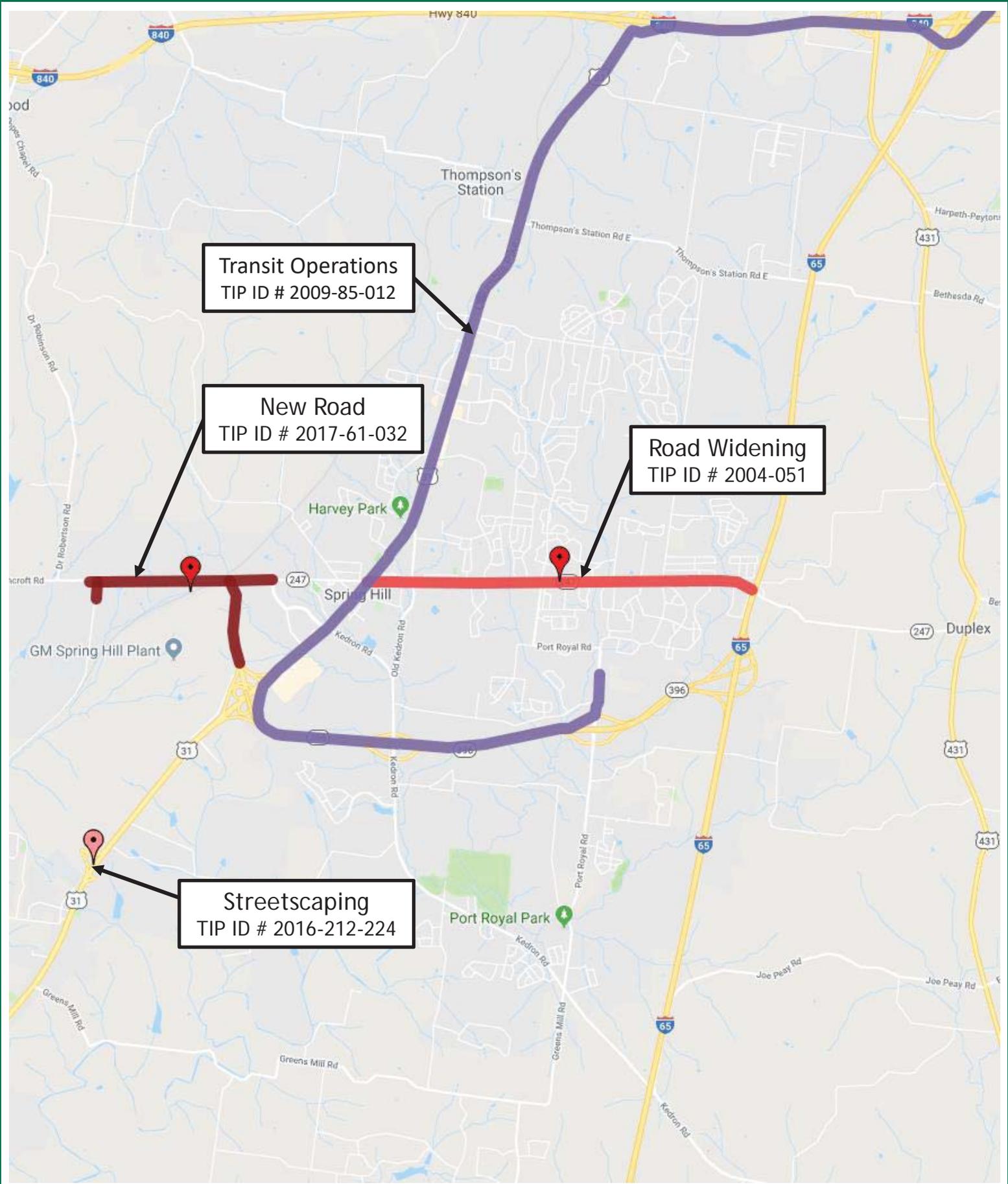


Figure 2.1:  
MPO Transportation  
Improvement Plan  
Spring Hill Major  
Thoroughfare Plan



N  
NOT TO SCALE



### **FUTURE GROWTH**

Spring Hill is a growing community within the rapidly expanding Middle Tennessee region. It is a community that faces the challenges of controlling the high demands for urban growth and depends heavily on the regional transportation system to move people efficiently and safely. The City is situated in both Williamson and Maury Counties and relatively close to Davidson County approximately 30 miles south of Nashville. The area is experiencing unprecedented growth and development.

Like many communities in the Middle Tennessee region, Spring Hill faces increasing development pressures that sometimes conflict with a strong desire to preserve, protect, and enhance its original small-town feel. The Major Thoroughfare Plan is a tool that aims to guide the community in managing its growth through the year 2040.

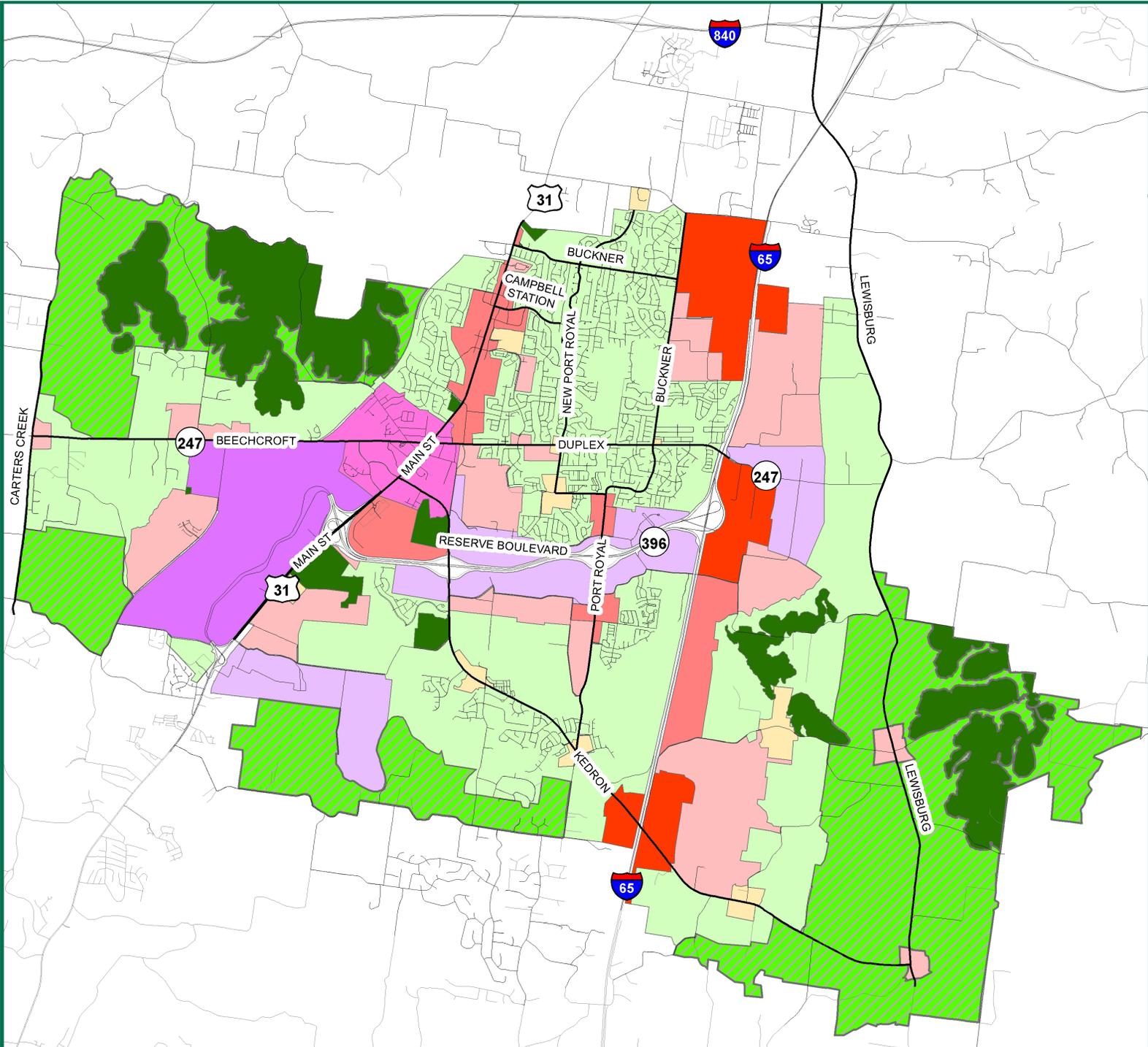
This growth presents tremendous opportunity for the City of Spring Hill to make informed decisions on future development and manage its increasing size. To determine future access and mobility needs of the City of Spring Hill, it is important to coordinate the City’s future land use and transportation plan. Future roadway extensions, new alignments, and the location and design of major intersections influence future development patterns across the City. Land use and zoning should be taken into consideration to ensure the efficient use of infrastructure such as roads, bridges, and municipal services match the land use travel patterns.



**Main Street near Campbell Station Parkway**

### **Future Land Use**

Land use and growth patterns within the City of Spring Hill’s Urban Growth Boundary (UGB) have played an integral role in the demand for and development of Spring Hill’s transportation system. The Spring Hill **RISING: 2040** Comprehensive Plan outlines future land uses with different character areas to provide general guidance for land use decisions to shape the development growth for the next twenty years. The Future Land Use Plan for the City of Spring Hill is shown in Figure 2.2.



**Legend**

- Roads
- 2015 Comprehensive Plan**
- Future Land Use**
- City Neighborhood Areas
- Community Commerce Areas
- Downtown/City Center
- Gateway Areas
- Industrial Areas
- Innovation Areas
- Mixed Use Neighborhood Areas
- Natural Areas
- Residential Neighborhood Areas
- Rural Neighborhood Areas



**Figure 2.2:  
Future Land Use  
Spring Hill Major  
Thoroughfare Plan**



### Future Population

A Special Census was conducted in 2018 and found that the official population of Spring Hill now stands at 40,436, a 10.7% increase from the 36,530 residents certified in 2016. Furthermore, a recent study conducted for the City's water demand projects the population to double by 2040 with a projected population of 81,287. This level of growth puts additional strains on the City's existing transportation network and presents many challenges as the City continues to experience growth pressures.



**Stewart Campbell Pointe**

### EXISTING PLUS COMMITTED (E+C) TRANSPORTATION NETWORK

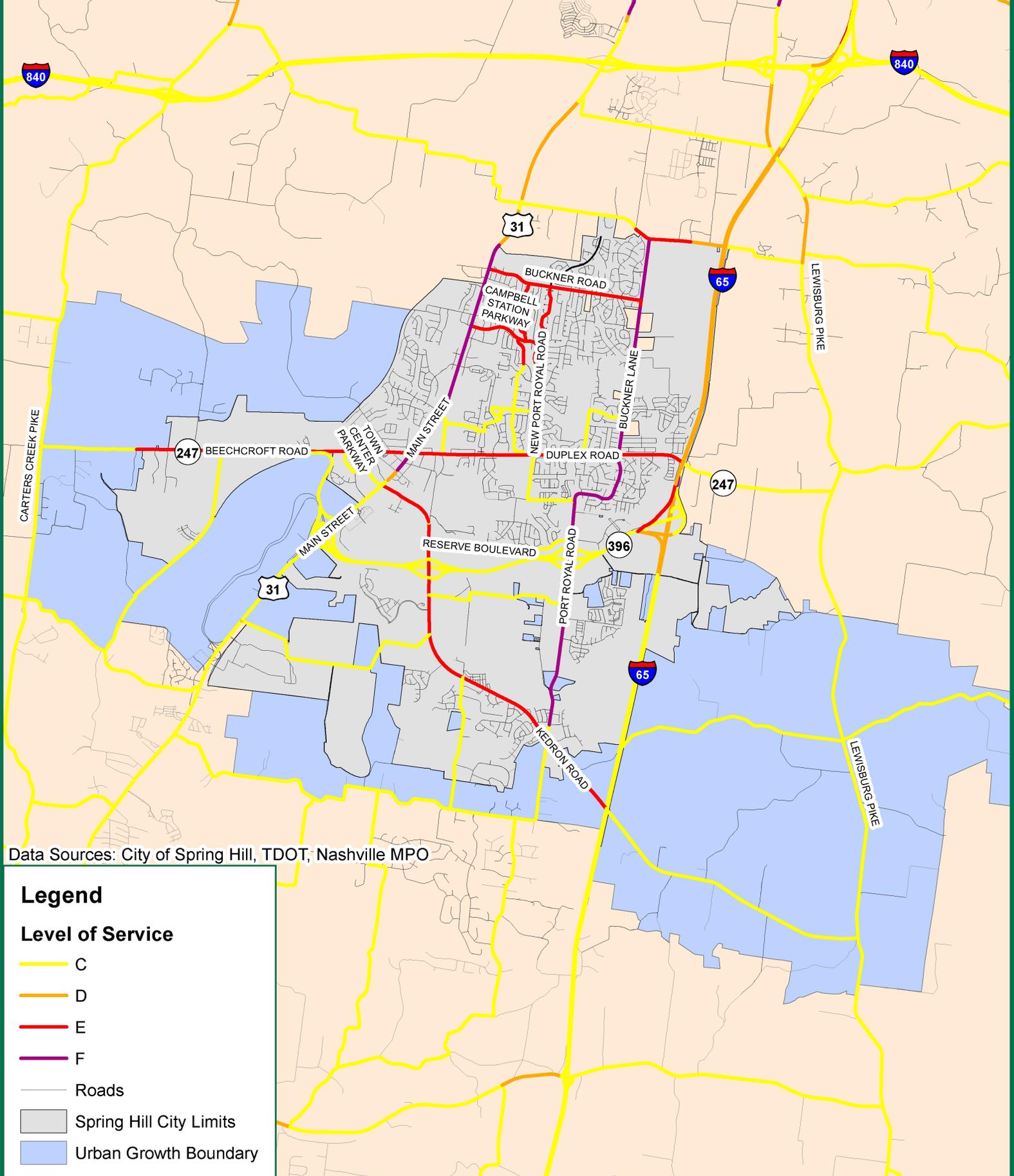
The Existing plus Committed (E+C) transportation network for the year 2040 was generated using the MPO travel demand model as a basis. The travel demand model used the projected socio-economic data for the year 2040 to produce trip forecasts and estimate traffic conditions in the study area for the year 2040. The E+C network analysis is based on the completion of the committed projects listed on pages 2-3 of this document in addition to the existing roadway network. The network shown in Figure 3 does not include any projects reflected in the Long Range Plan or future road or transportation improvements, only projects that are under construction or have funding for construction. Future improvements that are planned for and/or needed (but not funded through the MPO) will be discussed in the Recommendations chapter.

The results of the E+C travel demand model analysis are presented in Figure 2.3, which shows the expected peak hour Level of Service (LOS) for the 2040 E+C network. As shown, traffic operations in the study area are expected to deteriorate through the planning horizon year of 2040, with traffic operations falling below acceptable levels on several segments of the area's major roadways. Poor peak hour LOS (LOS D, E, and F shown in the orange and red colors) can be expected on segments of Main Street, Duplex Road, Beechcroft Road, Lewisburg Pike. Also, it should be noted that Thompson's Station Road has a major impact on commuting traffic within Spring Hill and experiences poor peak hour LOS.



**Beechcroft Road**

The worsening traffic operations would indicate a potential need for capacity-adding projects in the future for these roads. Specific improvements to address these deficiencies are discussed in detail in the Recommendations chapter.



Data Sources: City of Spring Hill, TDOT, Nashville MPO

**Legend**

**Level of Service**

- C
- D
- E
- F
- Roads
- Spring Hill City Limits
- Urban Growth Boundary

**Figure 2.3:**  
 Nashville MPO 2040 Model  
 Levels of Service  
 Spring Hill Major  
 Thoroughfare Plan

  
 0 0.45 0.9 1.8 2.7 3.6 Miles





Table 1 shows the length of road miles by LOS for the 2010 network and the E+C 2040 network. As shown the number of road miles operating at or below LOS D will increase dramatically. For example, in 2015, the MPO indicates there are 0.12 road miles operating at LOS F, and only 13.08 miles operating at D or below. By 2040, however, there are 9.45 road miles operating at F and the amount of road miles operating a D or below grows to over 40 miles. These results show that traffic operations on the roadways within the study area are expected to begin to deteriorate unless additional roadway improvements are made.

**Table 1. LOS Comparison 2015 and 2040 (in miles)**

<b>LOS</b>	<b>Base Year 2015</b>	<b>E+C Year 2040</b>
<b>A</b>	<b>0</b>	<b>0</b>
<b>B</b>	<b>0</b>	<b>0</b>
<b>C</b>	<b>59.89</b>	<b>32.29</b>
<b>D</b>	<b>11.14</b>	<b>12.82</b>
<b>E</b>	<b>1.82</b>	<b>18.35</b>
<b>F</b>	<b>0.12</b>	<b>9.45</b>

## CONCLUSION

Thorough analysis of the 2040 Existing plus Committed (E+C) transportation network reveals the need for future transportation improvements in the Spring Hill study area. Projected population and employment data along with planned roadway improvements from the Nashville Area MPO's Transportation Improvement Program make up the committed network and reveal future Levels of Service (LOS) on area roadways that are below an acceptable level. The increases in projected traffic are largely the result of a growing and vibrant community within the rapidly growing Nashville metropolitan region.

The Spring Hill Study Area in 2040 will experience significant roadway congestion according to the MPO model. The roadways that currently operate at LOS C will become increasingly congested and move to LOS D or worse. These increases are significant and result in increased pressures and demands on the roadway network in the Spring Hill study area. Specific improvements to address the area's anticipated transportation deficiencies are discussed in the Recommendations chapter.





### **CHAPTER 3. RECOMMENDED PLAN**

The City of Spring Hill is a member of the Nashville Area Metropolitan Planning Organization (MPO) – a regional transportation planning body made up of city and county governments within Davidson, Maury, Robertson, Rutherford, Sumner, Williamson, and Wilson Counties. The MPO is a federally mandated transportation planning organization that produces the region’s Long Range Transportation Plan (RTP). The RTP is a plan for all regionally significant transportation-related projects, including roadway and multimodal projects that should be implemented within a 20 to 30-year time frame. The plan is based on several factors, including projected population and employment growth, funding availability, and project necessity (e.g., traffic congestion).

In February 2016, the MPO’s 2040 RTP was adopted by the MPO Executive Board, which is made up of elected officials from the MPO member jurisdictions discussed in the previous paragraph. In an effort to get recognition and funding of transportation projects within the City of Spring Hill, recommended roadway improvements must be identified. The purpose of this Major Thoroughfare Plan is to establish and identify those improvements. Just as important, this plan is intended to assist the City of Spring Hill in establishing its priority projects for the roadway network in an effort to respond to and prepare for the continuing growth and development in the community.

In addition to specific roadway projects and classifications, the purpose of a Major Thoroughfare Plan is to identify policy and procedural recommendations to aid in smart growth and development. These policy recommendations are summarized below.

#### Buckner Road Extension/Interchange Access Management Policy

Access management is the control of driveways and intersections to manage access to land development, while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed. Implementing an access management plan for the corridor that is based on the strategies and principles described in a new ordinance will encourage and help maintain smooth and safe traffic flow. Access management is critical for new roadways and highways to prevent poor access control and mobility and safety concerns. Designing roadways with properly managed access is always preferred over retrofitting roadways with poor access management.

Failure to manage access is associated with the following adverse social, economic, and environmental impacts:

- An increase in vehicular crashes
- More collisions involving pedestrians and cyclists
- Accelerated reduction in roadway efficiency
- Unsightly commercial strip development
- Degradation of scenic landscapes
- More cut-through traffic in residential areas due to overburdened arterials
- Homes and businesses adversely impacted by a continuous cycle of widening roads
- Increased commute times, fuel consumption, and vehicular emissions as numerous driveways and traffic signals intensify congestion and delays along major roads

Based on this information, a detailed access management plan for the Buckner Road extension from Buckner Lane to US 431/Lewisburg Pike should be developed. This plan should include, but not be limited to, the following characteristics:

- Driveway spacing
- Driveway width
- Throat length of driveways and side streets
- Signal spacing
- Median cuts
- Raised island locations
- Internal/cross access
- Frontage roads

#### Traffic Impact Study Policy

Having a formal Traffic Impact Study policy is extremely beneficial for any municipality, especially one that is experiencing growth at a rate like Spring Hill. Local cities like Franklin, Columbia, and Nashville have Traffic Impact Study (TIS) requirement policies and procedures in place. The existing TIS Requirements (dated April 2018) for the City of Spring Hill lays out some typical guidance and procedures; however, it leaves the preparation of a TIS open to interpretation. A strict set of guidelines and procedures that a developer/applicant must follow should be developed, including a scoping meeting, tiers of a TIS, methods and software for analysis. It is also recommended that each TIS is reviewed by a professional traffic engineer. Many peer cities, including Franklin and Columbia, use an on-call consultant to act as the City's traffic engineer to provide review of all traffic studies. Review fees are paid by the developer/applicant.



### Intelligent Transportation System Policy and Capital Improvement Plan

Federal requirements now call for any agency that implements any kind of signal coordination or intelligent transportation system (ITS) program to eventually develop a citywide or regional architecture. To function effectively, the City must commit to providing proper maintenance and operation. Timing plans must be monitored and updated regularly. Whether maintenance and operations are monitored by in-house staff or by consultant, the agency should have the staff capability to understand the basic functions of the system and determine where and when changes and modifications are needed. Signal interconnection systems have varying degrees of benefit. While any coordination may reduce delay somewhat, it has to be weighed against the costs of installation, operation, and maintenance. If the corridor functions well without excessive queuing or delay, interconnection may not be cost effective. It is recommended the City begins the implementation of its own ITS system.

### Roadway Improvements

The recommended roadway improvements were developed based on existing and projected traffic volumes, access to and from key origins and destinations, safety and circulation, and actual observed congestion. The improvements are ranked in three priority levels. High priority are ones that are existing needs and should be implemented as soon as funding becomes available. Medium priority are projects that are currently experiencing some congestion and/or need additional access and should be implemented once all high priority projects have been fulfilled. Low priority projects would be beneficial and provide improved circulation and traffic flow, but are not urgent based on congestion or existing access and connectivity.

Table 3.1 lists the transportation projects that are proposed as part of this Major Thoroughfare Plan. Figure 3.1 illustrates those projects within the City of Spring Hill. Each individual project is detailed in the following pages.



**TABLE 3.1 MTP PROJECT LIST**

<b>Project</b>	<b>Route</b>	<b>Start</b>	<b>End</b>	<b>Improvement</b>	<b>Length (miles)</b>	<b>Priority</b>
1	Buckner Lane	Duplex Road	Thompson's Station Road	Widen from 2 lanes to 4/5 lanes and realign	2.72	High
2	Buckner Road	SR 6/US 31	Buckner Lane	Widen from 2 lanes to 4/5 lanes	1.91	Medium
3	Buckner Road Extension	Buckner Lane	SR 106/US 431/ Lewisburg Pike	Extend as 4-6 lane road	3.54	High
4	Crossings Boulevard	Crossings Boulevard	Crossings Circle South	Extend as 2 lane road with turn lanes	0.32	Medium
5	Crossings Circle South	Crossings Circle South	Kedron Road	Extend as 2 lane road with turn lanes	0.97	Medium
6	RESERVED	---	---	---	---	---
7	Duplex Road	I-65	SR 106/US 431/ Lewisburg Pike	Widen from 2 lanes to 3 lanes & correct alignment	1.92	Medium
8	Ferguson Road	Southern Terminus	Parkway Drive	Construct new 2 lane road	1.05	Low
9	Greensmill Road	Kedron Road	SR 6/US 31	Widen to provide standard 2 lanes & correct alignment	6.13	Low
10	Heritage Bypass	Heritage Campus	Campbell Station Parkway	Construct new 2 lane road	0.61	Medium
11	Jim Warren Road	Port Royal Road	Crafton Road	Widen to provide standard 2 lanes with turn lanes	1.74	Low
12	Jim Warren Road Extension	Crafton Road	SR 106/US 431/ Lewisburg Pike	Extend as 2 lane road	1.62	Low
13	Joe Peay Road	Rice Road	SR 106/US 431/ Lewisburg Pike	Extend as 2 lane road with turn lanes	3.03	Low



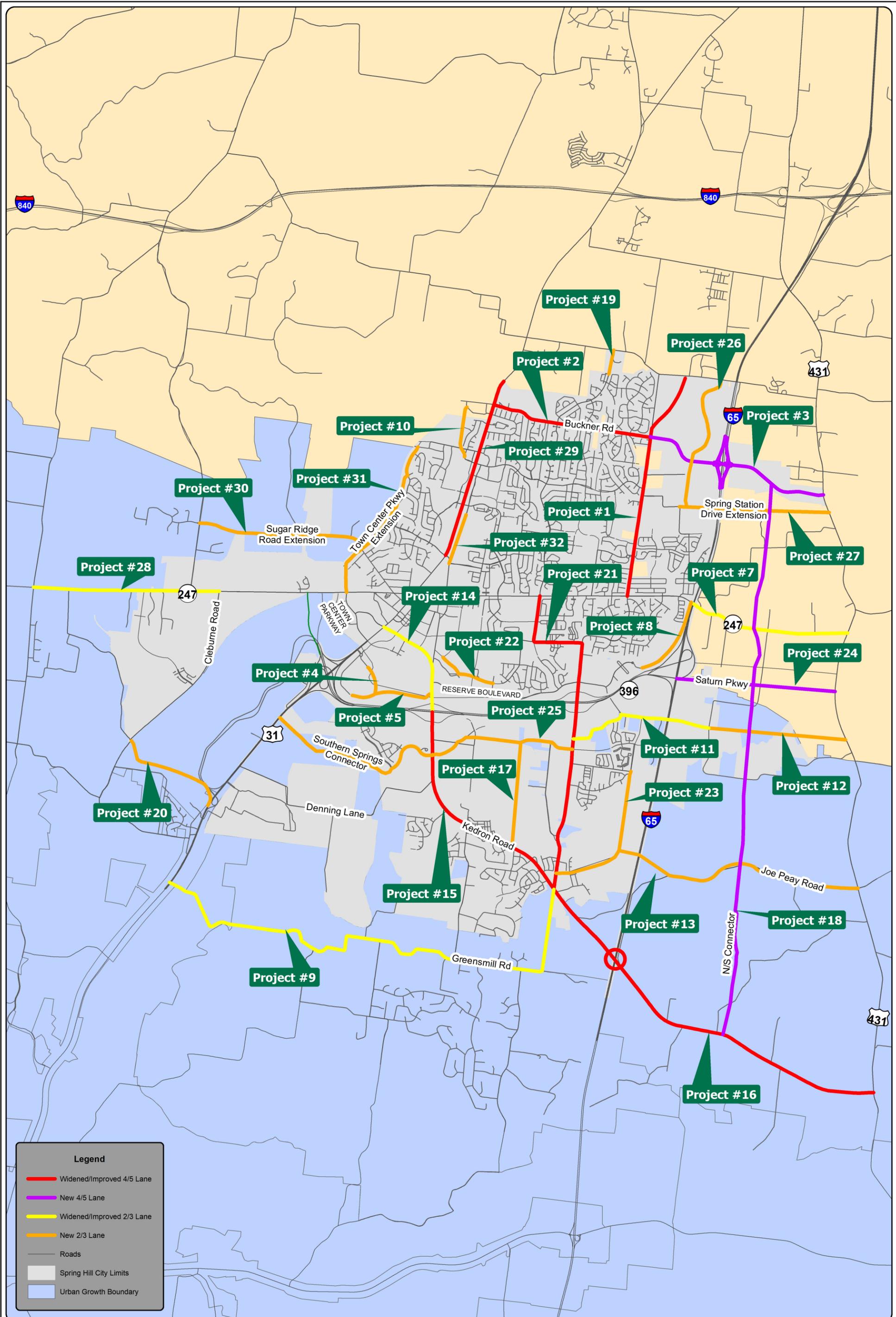
**TABLE 3.1 MTP PROJECT LIST (CON'T)**

<b>Project</b>	<b>Route</b>	<b>Start</b>	<b>End</b>	<b>Improvement</b>	<b>Length (miles)</b>	<b>Priority</b>
14	Kedron Road	SR 6/US 31	Saturn Parkway	Widen from 2 lanes to 3 lanes	1.28	High
15	Kedron Road	Saturn Parkway	Port Royal Road	Widen from 2 lanes to 4 lanes with turn lanes	2.81	Medium
16	Kedron Road	Port Royal Road	SR 106/US 431/ Lewisburg Pike	Widen from 2 lanes to 4 lanes & construct interchange	4.70	Low
17	Kings Creek Connector	John Lunn Road	Kedron Road	Construct new 2 lane road	1.24	Low
18	N/S Connector	Buckner Road Extension	Kedron Road (E of I-65)	Construct new 4 lane road	6.99	Low
19	New Port Royal Road Extension	Northern Terminus	Thompson's Station Road	Extend as 2 lane road	0.29	Medium
20	Petty Lane	Cleburne Road	SR 6/US 31	Construct new 2 lane road	1.37	Low
21	Port Royal Road	Duplex Road	Kedron Road	Widen from 2 lanes to 4 lanes	4.06	Medium
22	Ray Williams Drive Extension	Station Hill Drive	Old Kedron Road	New 2 lane road	0.79	Low
23	Rice Road	Rice Road Terminus	Port Royal Road	New 2 lane road	2.43	Low
24	Saturn Parkway Extension	I-65	SR 106/US 431/ Lewisburg Pike	Extend as 4 lane parkway with turn lanes	1.80	Low
25	Southern Springs Connector	Port Royal Road	SR 6/US 31	Construct new 2 lane road, improve Royal Park/John Lunn Road	4.01	Medium
26	Spring Station Connector	Thompson's Station Road	Spring Station Drive	Construct new 2 lane road	1.60	Low



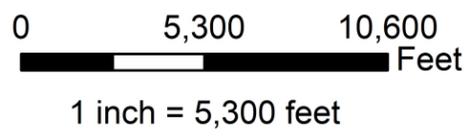
**TABLE 3.1 MTP PROJECT LIST (CON'T)**

Project	Route	Start	End	Improvement	Length (miles)	Priority
27	Spring Station Drive Extension	Spring Station Drive	SR 106/US 431/ Lewisburg Pike	Extend as 2 lane road with turn lanes	1.76	Low
28	SR 247/ Beechcroft Road	Carters Creek Pike	Cleburne Road	Widen to provide standard 2 lanes with turn lanes	2.21	Medium
29	SR 6/US 31	Miles Johnson Parkway	Buckner Road	Widen from 2 lanes to 4/5 lanes	2.18	High
30	Sugar Ridge Road Extension	Sugar Ridge Road western terminus	Dr. Robinson Road	Extend as 2 lane road	2.01	Low
31	Town Center Parkway	Duplex Road	Wilkes Lane	Extend as 2 lane road	2.02	Low
32	Wall Street	Southern Terminus	Miles Johnson Parkway	Extend as 2 lane road	0.61	High



**Legend**

- Widened/Improved 4/5 Lane
- New 4/5 Lane
- Widened/Improved 2/3 Lane
- New 2/3 Lane
- Roads
- Spring Hill City Limits
- Urban Growth Boundary



**Figure 3.1  
 Major Thoroughfare Plan**

Note: This map is for presentation use only and not to be used for construction purposes.

Path: F:\Projects\1072100\_17\_Spring\_Hill\_MTP\_Revisions\GIS\Map\_Documents\Figure\_3.1\_Nashville\_MPO\_2040\_PM\_Levels\_of\_Service.mxd

## PROJECT 1: BUCKNER LANE

### Project Location

Termini: From Duplex Road to Thompson's Station Road

Length: 2.72 miles

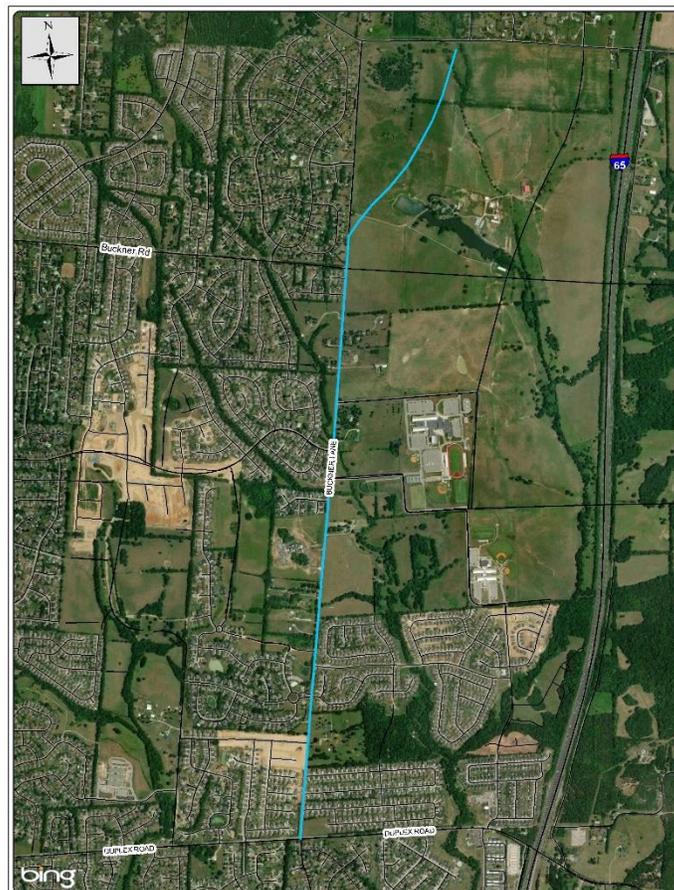
Improvement: Widen from 2 lanes to 4 lanes with turn lanes as needed and realign

Functional Class: Arterial

Priority: High

### Project Summary

This improved 4-lane arterial would provide a more efficient north-south route on the northeast side of the City. Buckner Lane parallels I-65 and provides access to numerous residential neighborhoods and Summit High School and Spring Station Middle School. This route is a major connector between Duplex Road and Thompson's Station Road and will become more heavily traveled with the proposed I-65 interchange at Buckner Road. This improvement will include realigning to intersect Thompson's Station Road. Without improvements, Buckner Lane is projected to operate at LOS F in 2040.



**PROJECT 2: BUCKNER ROAD**

**Project Location**

**Termini:** From SR 6/US 31/Main Street to Buckner Lane

**Length:** 1.91 miles

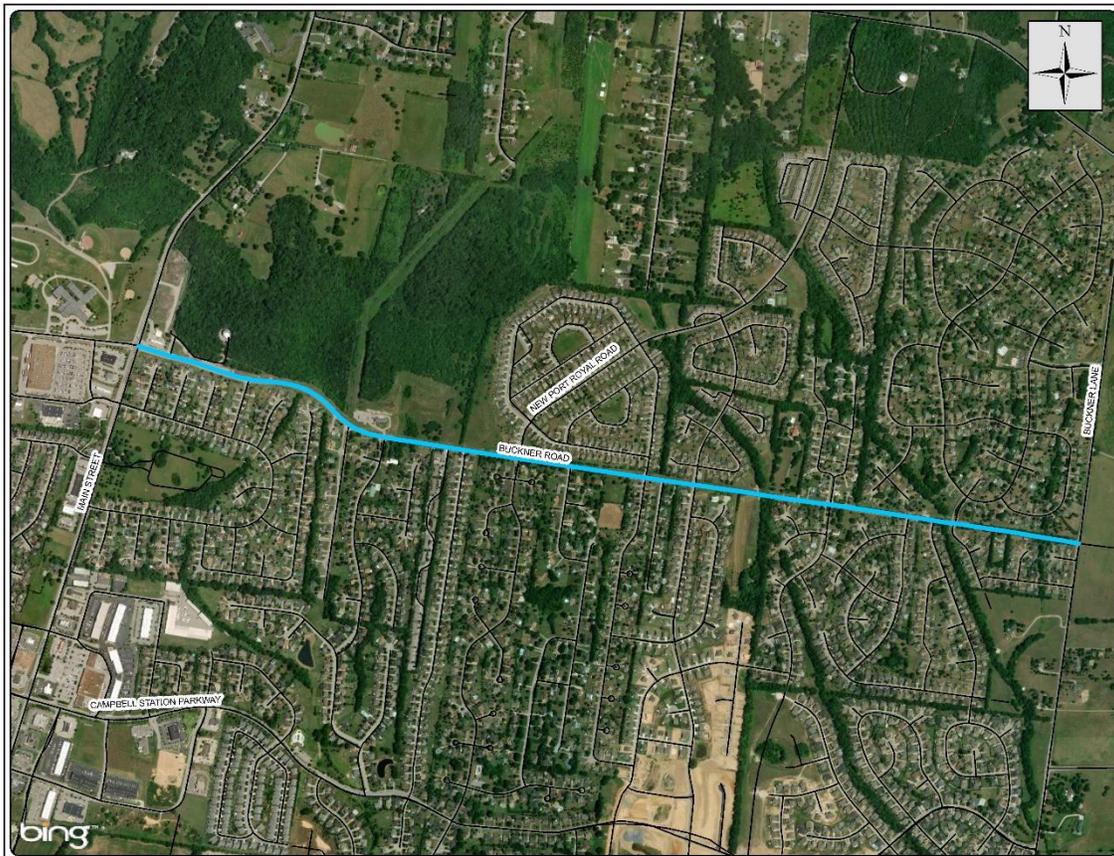
**Improvement:** Widen from 2 lanes to 4 lanes with turn lanes as needed

**Functional Class:** Arterial

**Priority:** Medium

**Project Summary**

This improved 4-lane arterial would provide a more efficient east-west route on the north side of the City. Buckner Road provides access to numerous residential neighborhoods on both sides of the roadway and will serve as the primary east-west route to access the proposed I-65 interchange. Without improvements, Buckner Road is projected to operate at LOS E in 2040.



**PROJECT 3: BUCKNER ROAD EXTENSION AND I-65 INTERCHANGE**

**Project Location**

**Termini:** From Buckner Lane to SR 106/US 431/Lewisburg Pike

**Length:** 3.54 miles

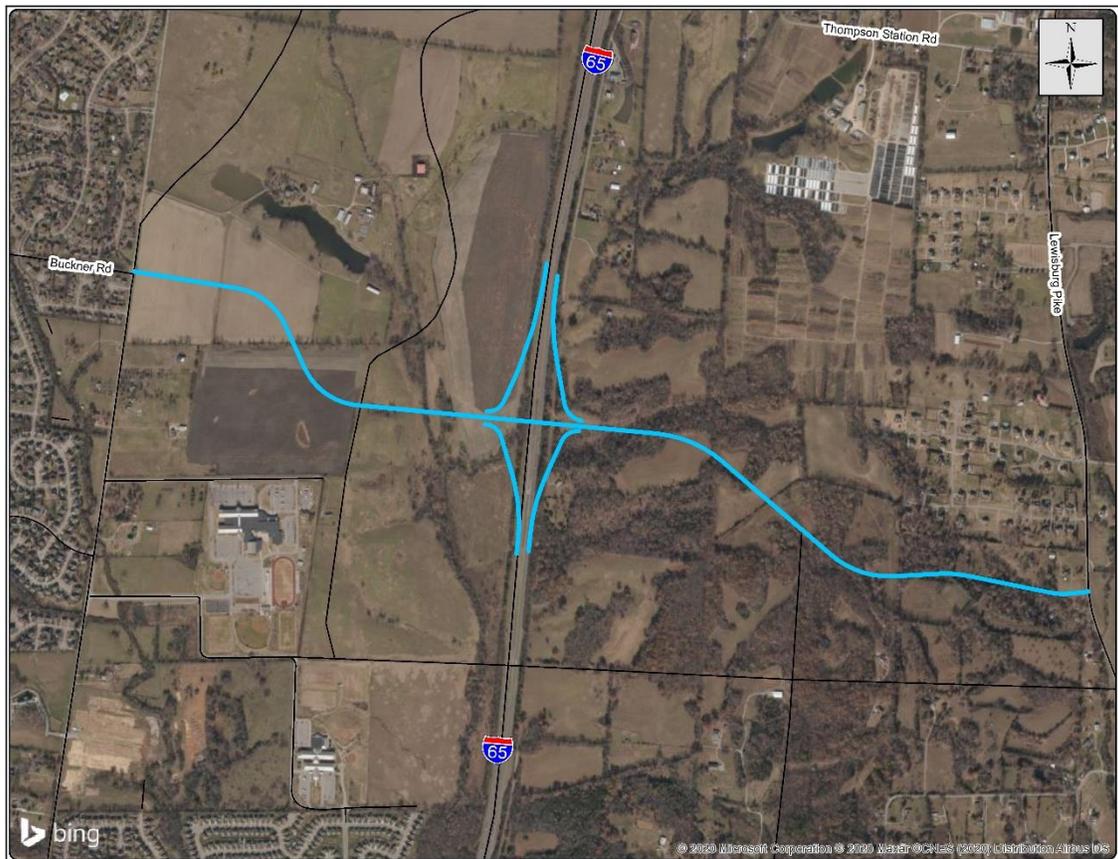
**Improvement:** New 4-lane roadway with 6 lanes at interchange

**Functional Class:** Arterial

**Priority:** High

**Project Summary**

This proposed 4-lane arterial would provide an east-west connection from Buckner Lane to a major state route east of I-65. This project would also provide a new interstate access to I-65 via Diverging Diamond Interchange. The roadway would run through Gateway Land Use. This new roadway would provide much improved access to and from major routes on each side of I-65 and provide travel time benefits into and out of Spring Hill.



**PROJECT 4: CROSSINGS BOULEVARD**

**Project Location**

**Termini:** From Crossings Boulevard to Crossings Circle South

**Length:** 0.32 miles

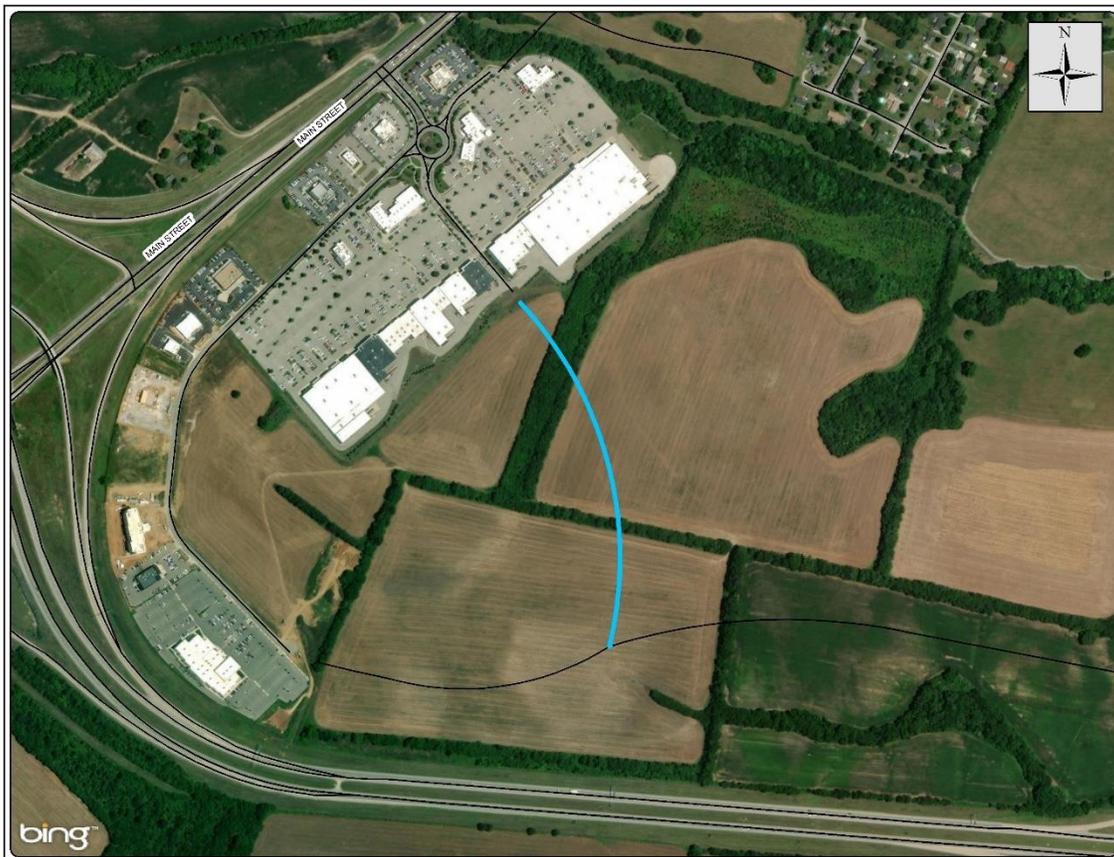
**Improvement:** New 2-lane roadway with turn lanes

**Functional Class:** Collector

**Priority:** Medium

**Project Summary**

This proposed 2-lane collector would provide a north connection between The Crossings shopping center and the proposed Crossings Circle South. It would provide a practical connection for traffic without having to utilize SR 6/US 31/Main Street or Saturn Parkway.



**PROJECT 5: CROSSINGS CIRCLE SOUTH**

**Project Location**

**Termini:** From Crossings Circle South to Kedron Road

**Length:** 0.97 miles

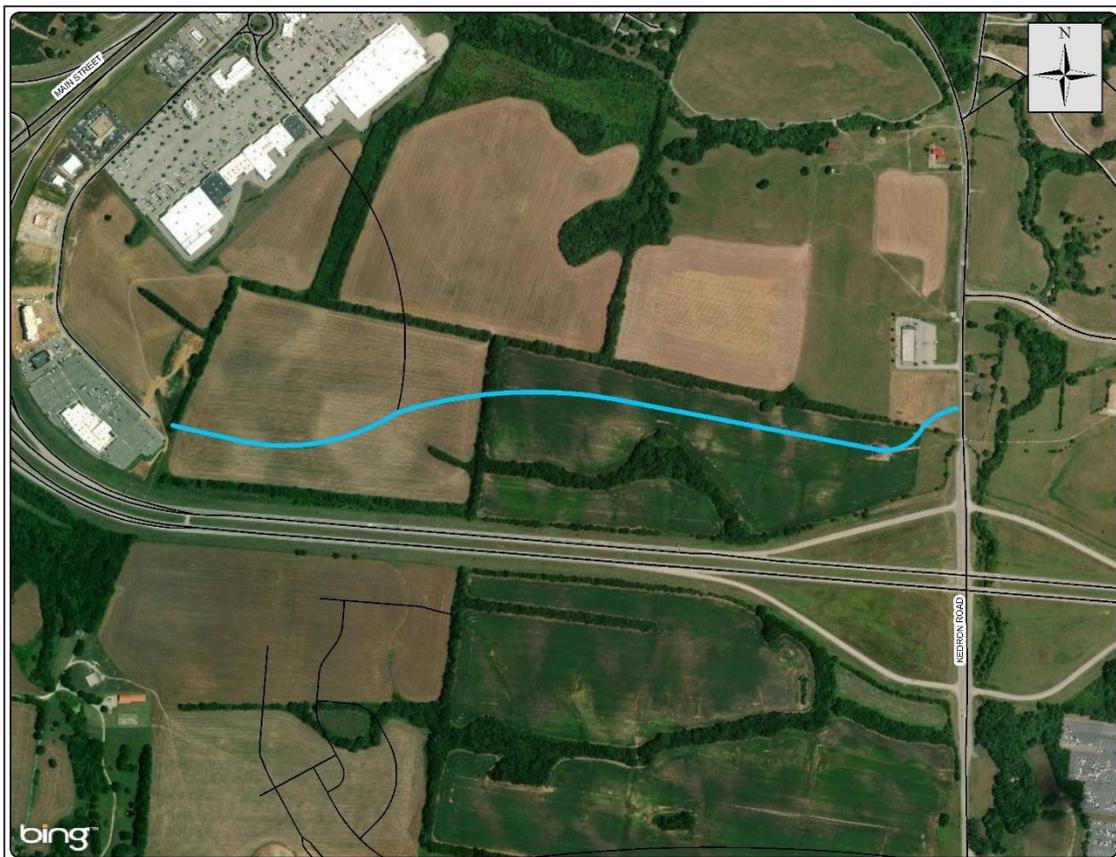
**Improvement:** New 2- and 4-lane roadway with turn lanes as needed

**Functional Class:** Collector

**Priority:** Medium

**Project Summary**

This proposed collector would provide an east-west connection between The Crossings shopping center and Kedron Road. This new road would run parallel to Saturn Parkway. It would provide a practical connection for traffic without having to utilize SR 6/US 31/Main Street or Saturn Parkway. This road would be 2 lanes between the existing terminus of Crossings Circle South and the proposed Crossings Boulevard and 4 lanes to Kedron Road.





**PROJECT 6: RESERVED**

Project Location

Termini:

Length:

Improvement:

Functional Class:

Priority:

Project Summary

## PROJECT 7: DUPLEX ROAD

### Project Location

Termini: From I-65 to SR 106/US 431/Lewisburg Pike

Length: 1.92 miles

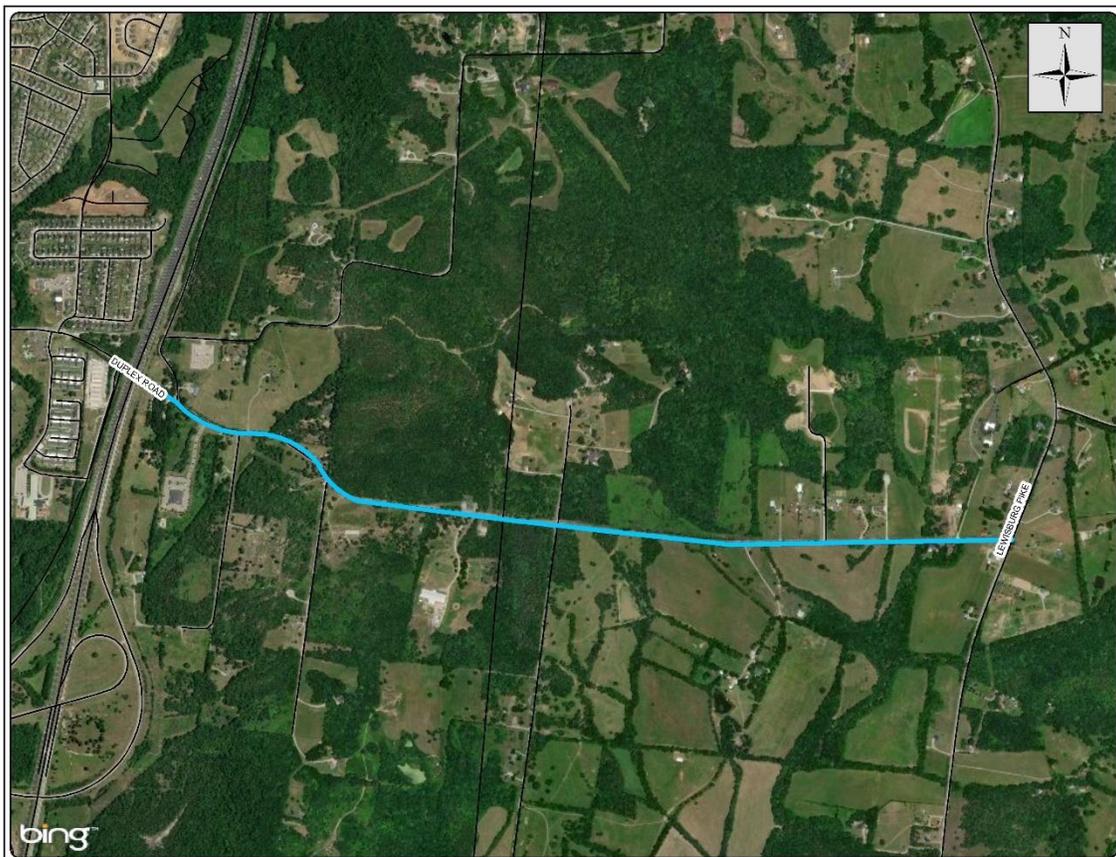
Improvement: Widen from 2 lanes to 3 lanes and correct alignment

Functional Class: Arterial

Priority: Medium

### Project Summary

This improved 3-lane arterial would provide improved east-west connection on the east side of I-65. It would also correct the horizontal and vertical alignment and sight distance issues that currently exist. This roadway primarily provides access to residential properties and undeveloped land. This segment of Duplex Road is expected to operate at LOS D in 2040 without improvements.



**PROJECT 8: FERGUSON ROAD**

**Project Location**

**Termini:** From southern terminus to Parkway Drive

**Length:** 1.05 miles

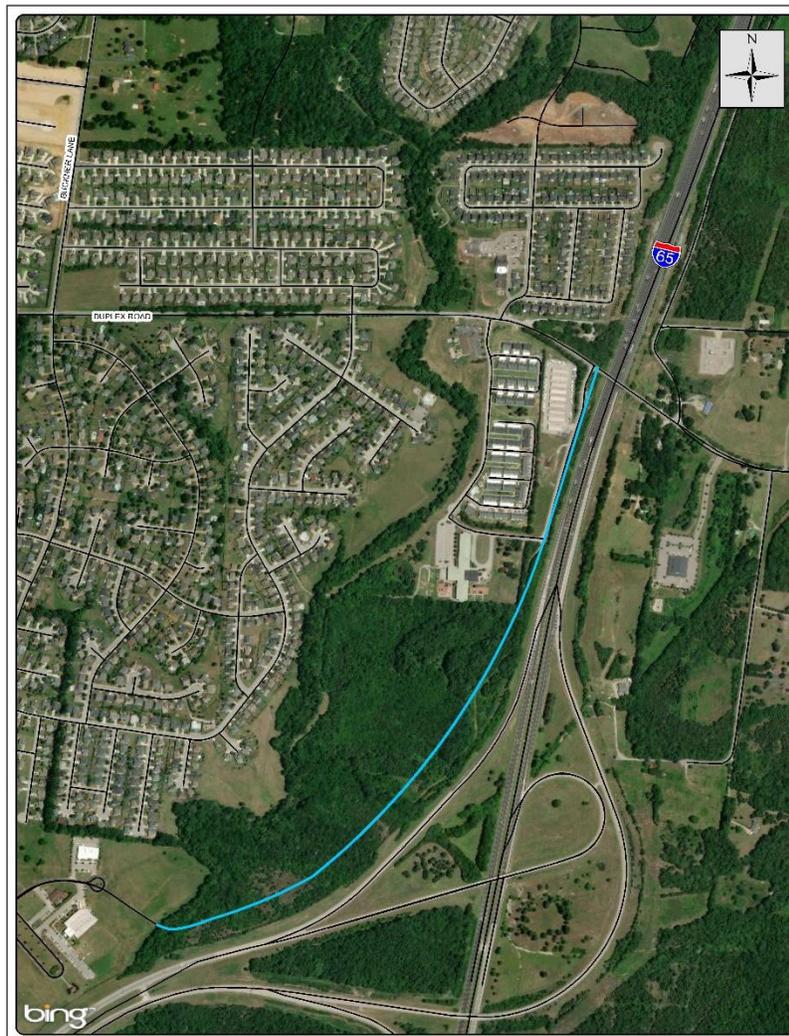
**Improvement:** New 2-lane roadway

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This new 2-lane collector would provide improved connection between Duplex Road and Chapman's Retreat Elementary School to Parkway Drive/Port Royal Road. This roadway would traverse mainly undeveloped land.



**PROJECT 9: GREENSMILL ROAD**

**Project Location**

**Termini:** From Kedron Road to SR 6/US 31

**Length:** 6.13 miles

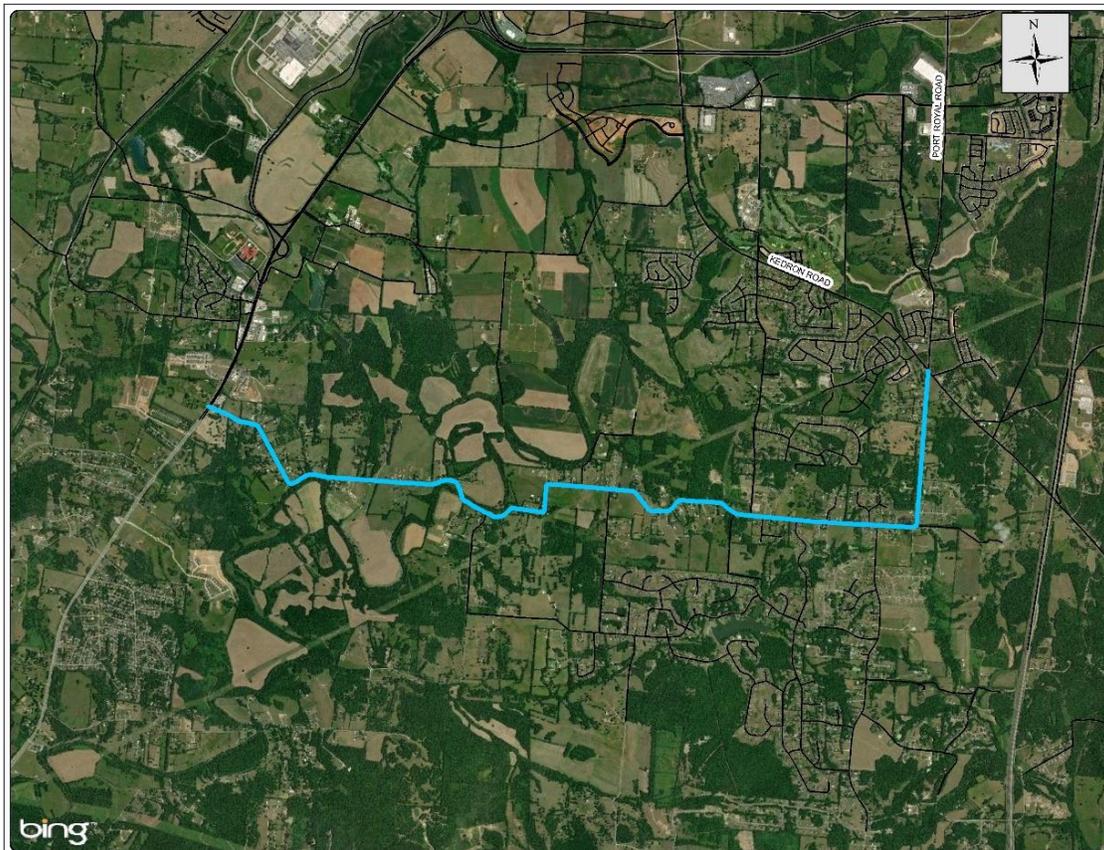
**Improvement:** Widen to provide standard 2-lanes and correct alignment

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This improved 2-lane collector would provide improved east-west connection on the south side of the City. It would also correct the horizontal alignment and sight distance issues that currently exist. This roadway primarily provides access to residential properties and undeveloped land.



## PROJECT 10: HERITAGE BYPASS

### Project Location

Termini: From Heritage Campus to Campbell Station Parkway

Length: 0.61 miles

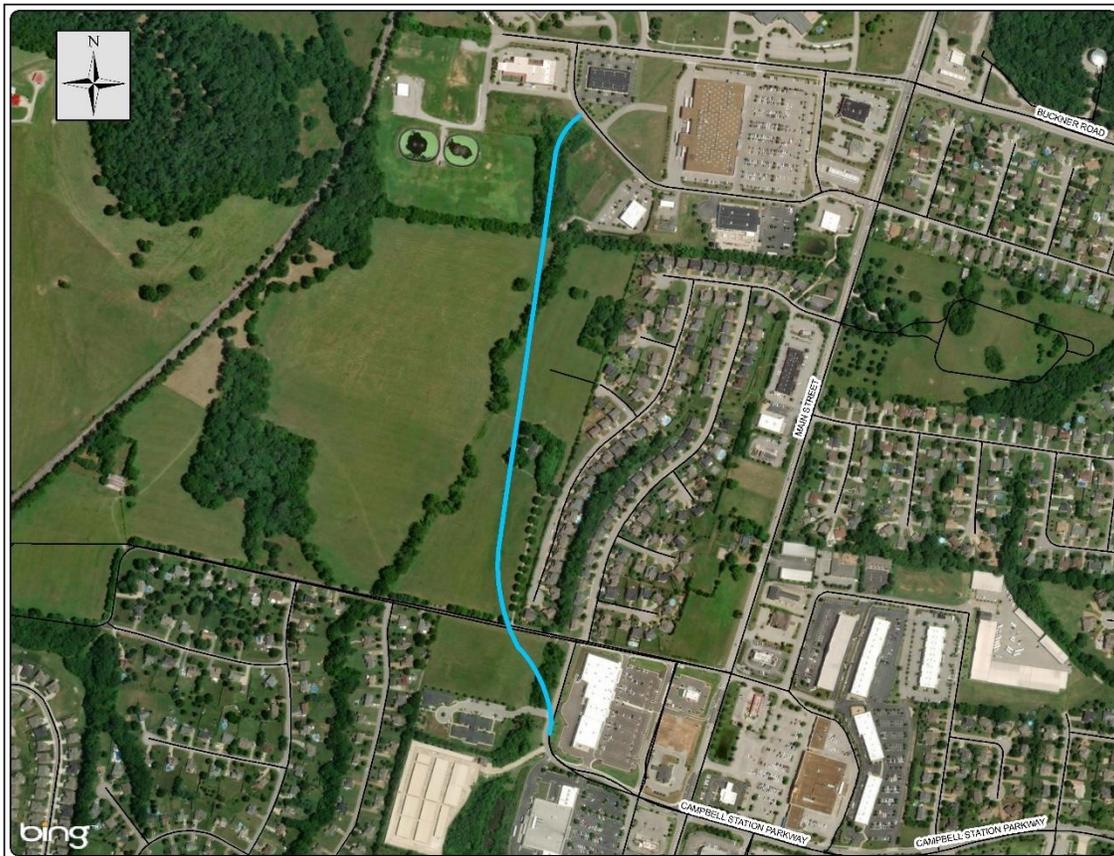
Improvement: New 2-lane roadway

Functional Class: Collector

Priority: Medium

### Project Summary

This proposed 2-lane collector would provide an alternative north-south connection between the Heritage Schools campus and SR 6/US 31/Main Street. The roadway would run through mostly undeveloped land and connect to Wilkes Lane. This roadway would run along the west side of SR 6/US 31/Main Street.



PROJECT 11: JIM WARREN ROAD

Project Location

Termini: From Port Royal Road to Crafton Road

Length: 1.74 miles

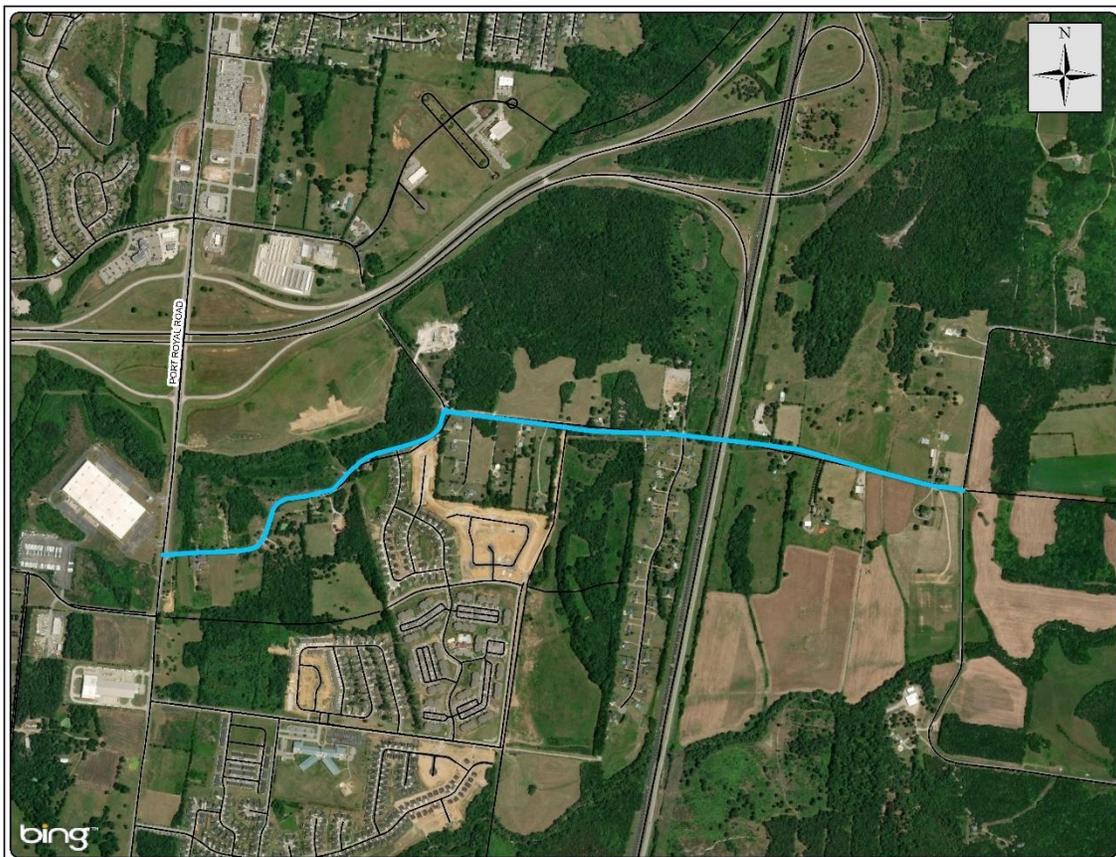
Improvement: Widen to provide standard 2 lanes with turn lanes and correct alignment

Functional Class: Collector

Priority: Low

Project Summary

This widened 2-lane collector would provide improved east-west access on the east side of the City, including crossing I-65. It would also improve the narrow lanes that currently exist. This roadway provides access to multiple residential properties and undeveloped areas.



**PROJECT 12: JIM WARREN ROAD EXTENSION**

**Project Location**

**Termini:** From Crafton Road to SR 106/US 431/Lewisburg Pike

**Length:** 1.62 miles

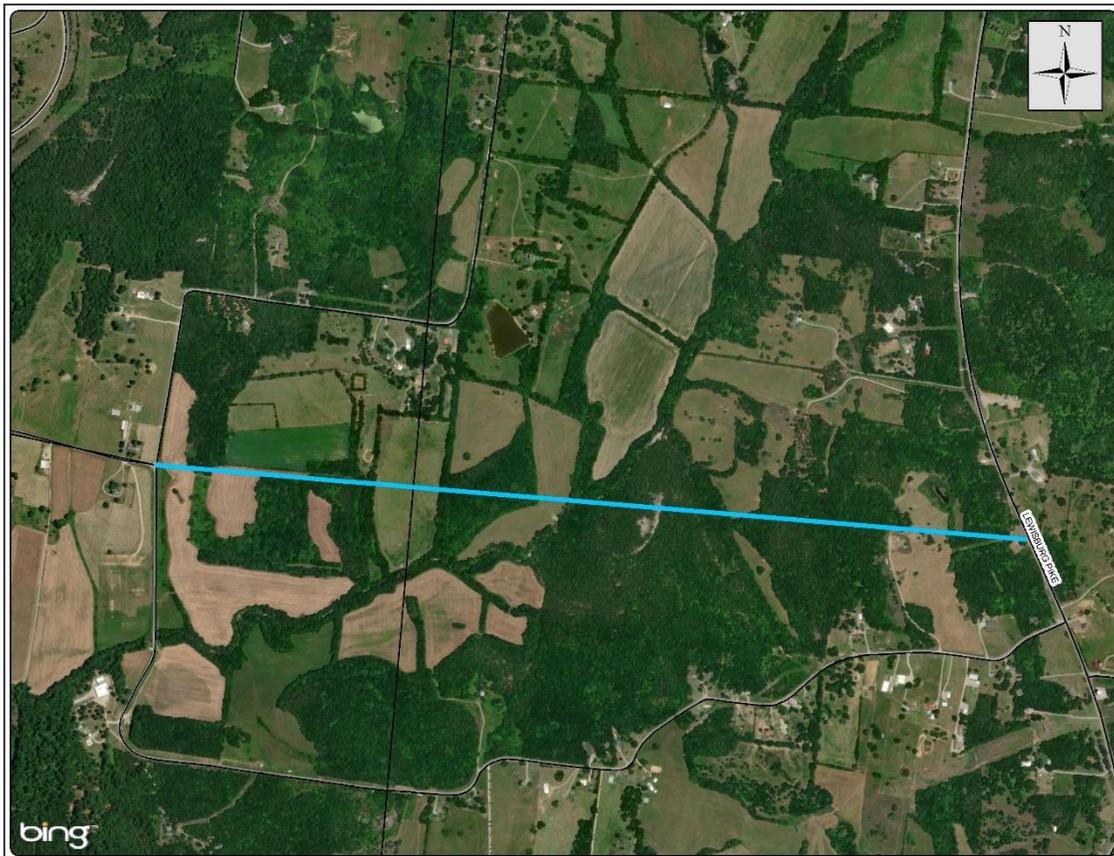
**Improvement:** New 2-lane roadway

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This proposed 2-lane collector would provide an east-west connection through the rural area that lies between Crafton Road and SR 106/US 431/Lewisburg Pike. The roadway would run through mostly undeveloped properties. It would provide a logical connection from the City to a major highway.



**PROJECT 13: JOE PEAY ROAD**

**Project Location**

**Termini:** From Rice Road to SR 106/US 431/Lewisburg Pike

**Length:** 3.03 miles

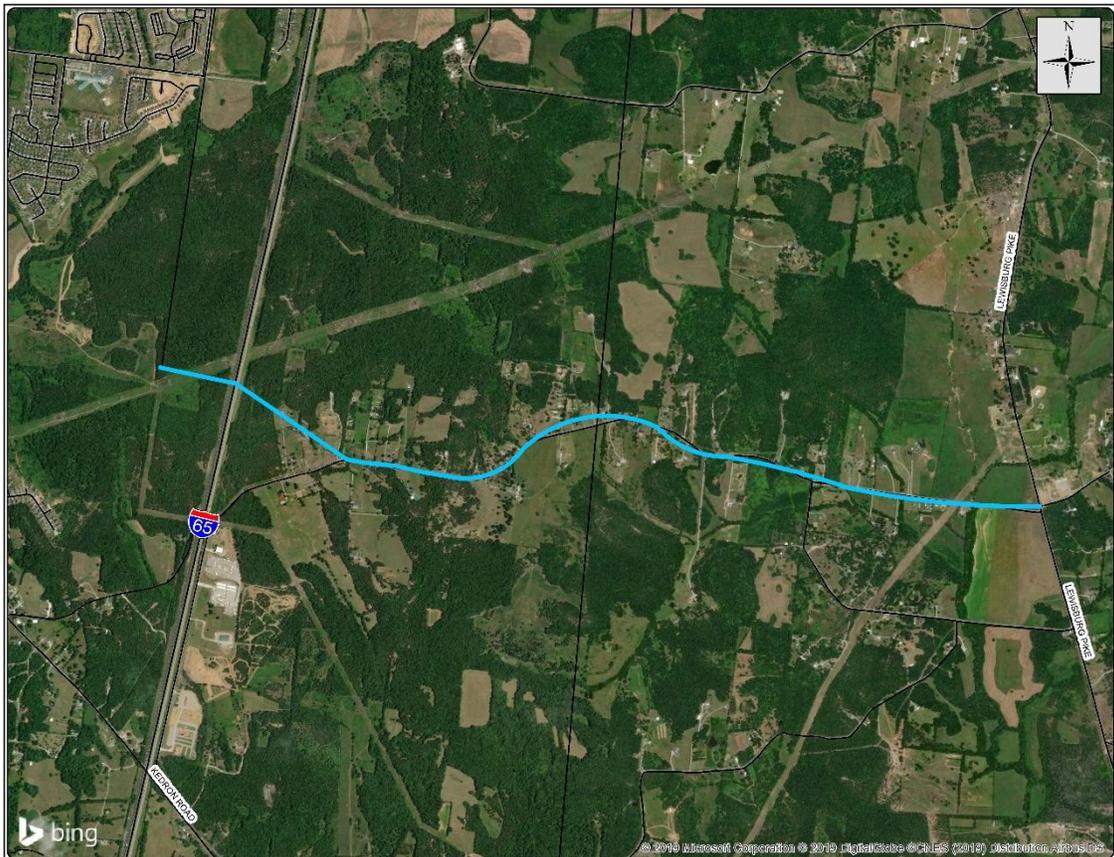
**Improvement:** New 2-lane roadway with turn lanes

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This proposed 2-lane collector would provide an east-west connection from SR 106/US 431/Lewisburg Pike to near the proposed extension of Rice Road. This new road would provide an improved and alternative connection across I-65 on the southeast side of the City.



**PROJECT 14: KEDRON ROAD**

**Project Location**

**Termini:** From SR 6/US 31/Main Street to Saturn Parkway

**Length:** 1.28 miles

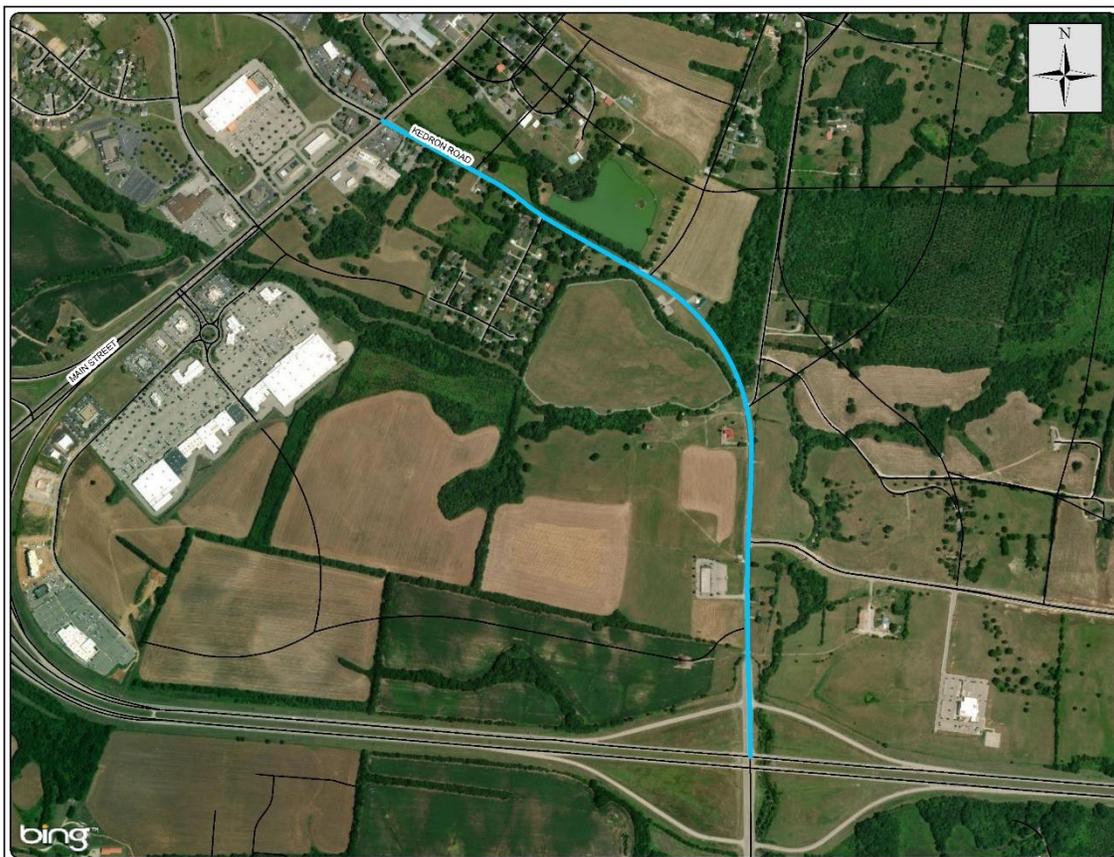
**Improvement:** Widen from 2 lanes to 3 lanes

**Functional Class:** Arterial

**Priority:** High

**Project Summary**

This improved 3-lane arterial would provide improved access to the high-demand connection between Saturn Parkway and SR 6/US 31/Main Street. This roadway provides access to several local routes and residential properties. This segment of Kedron Road is expected to operate at LOS E in 2040 without improvements.



**PROJECT 15: KEDRON ROAD**

**Project Location**

**Termini:** From Saturn Parkway to Port Royal Road

**Length:** 2.81 miles

**Improvement:** Widen from 2 lanes to 4 lanes with turn lanes

**Functional Class:** Arterial

**Priority:** Medium

**Project Summary**

This improved 4-lane arterial would provide a more efficient north-south route on the south side of the City. This roadway traverses residential property and undeveloped areas. However, this route is a major connector between Saturn Parkway and Port Royal Road. Without improvements, Kedron Road is projected to operate at LOS E in 2040.



## PROJECT 16: KEDRON ROAD

### Project Location

Termini: From Port Royal Road to SR 106/US 431/Lewisburg Pike

Length: 4.70 miles

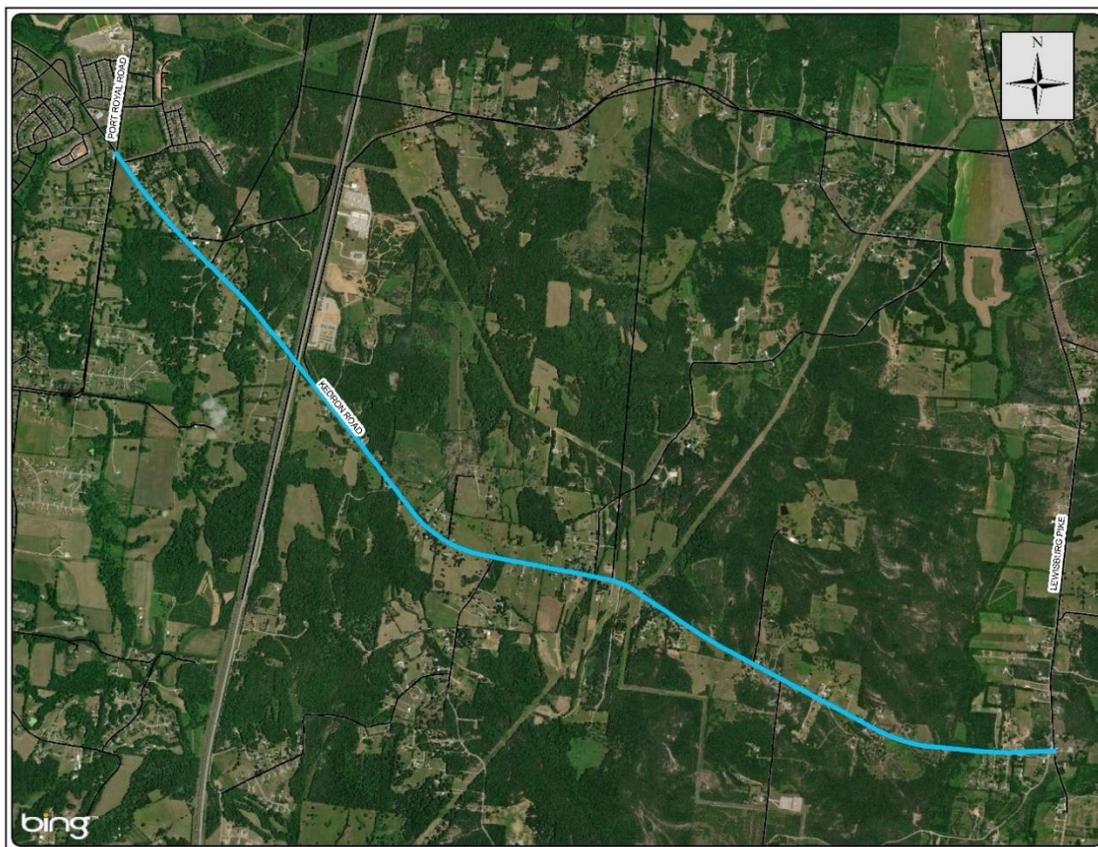
Improvement: Widen from 2 lanes to 4 lanes and construct interchange

Functional Class: Arterial

Priority: Low

### Project Summary

This improved 4-lane collector would provide a more efficient north-south route on the southeast side of the City. This roadway traverses primarily undeveloped areas. However, this route would include an interchange at I-65 and would be a major connector between Port Royal Road and SR 106/US 431/Lewisburg Pike. With the interchange, this roadway would run through future Gateway Land Use. Without improvements, a segment of Port Royal Road is projected to operate at LOS E in 2040.



## PROJECT 17: KINGS CREEK CONNECTOR

### Project Location

Termini: From John Lunn Road to Kedron Road

Length: 1.24 miles

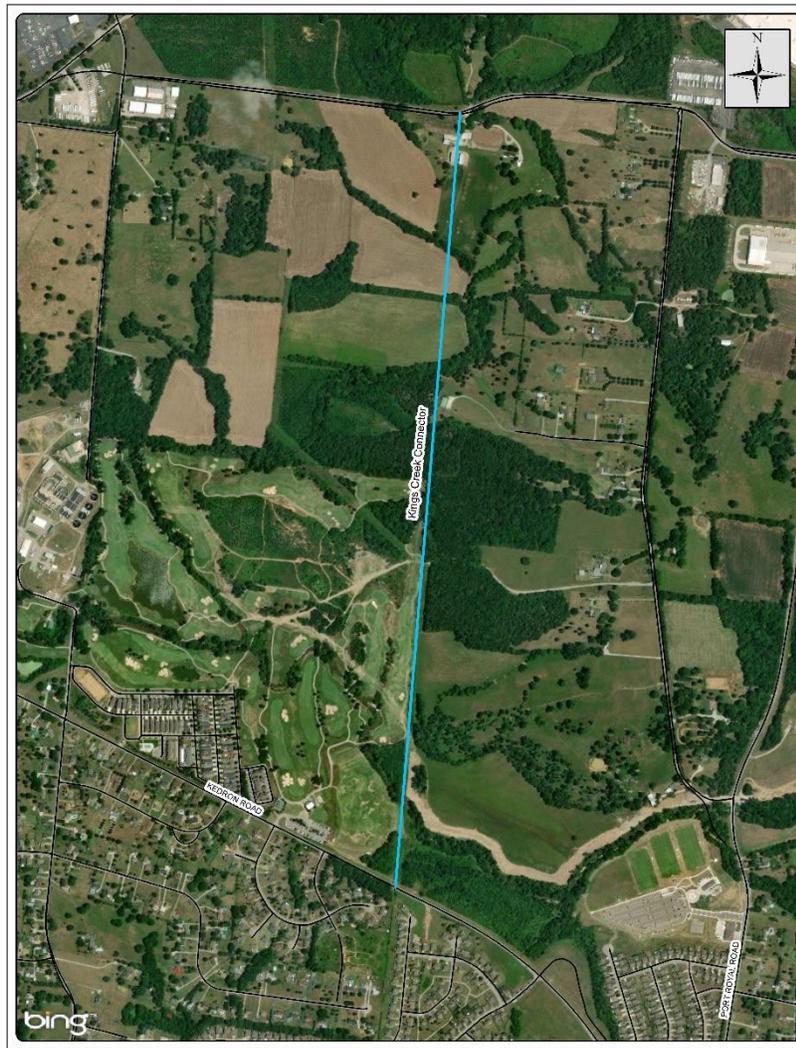
Improvement: New 2-lane roadway

Functional Class: Collector

Priority: Low

### Project Summary

This proposed 2-lane collector would provide a needed north-south connection through potential development between John Lunn Road and Kedron Road. The new road would traverse mainly undeveloped and residential properties.



## PROJECT 18: N/S CONNECTOR

### Project Location

Termini: From Buckner Road Extension to Kedron Road (E. of I-65)

Length: 6.99 miles

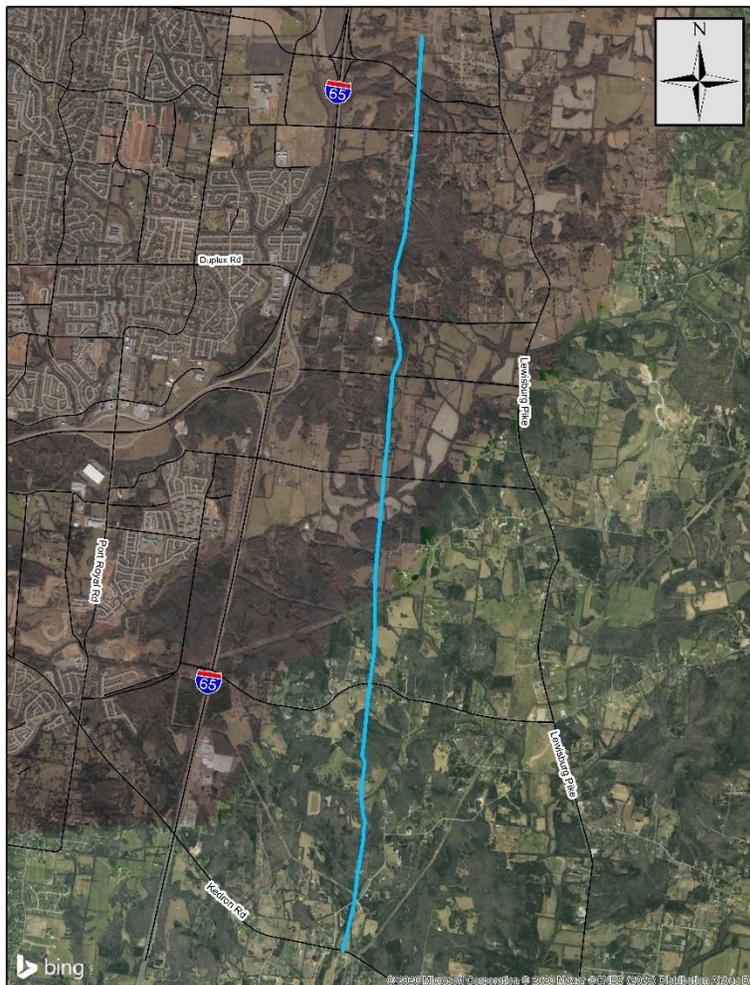
Improvement: New 4-lane roadway

Functional Class: Arterial

Priority: Low

### Project Summary

This proposed 4-lane arterial would provide a needed north-south connection through the rural area on the east side of I-65. The roadway would run through a multitude of existing and future residential land uses. This new roadway would help with connectivity once the Buckner Road extension and I-65 interchange is complete.



**PROJECT 19: NEW PORT ROYAL ROAD EXTENSION**

**Project Location**

**Termini:** From Northern Terminus to Thompson’s Station Road

**Length:** 0.29 miles

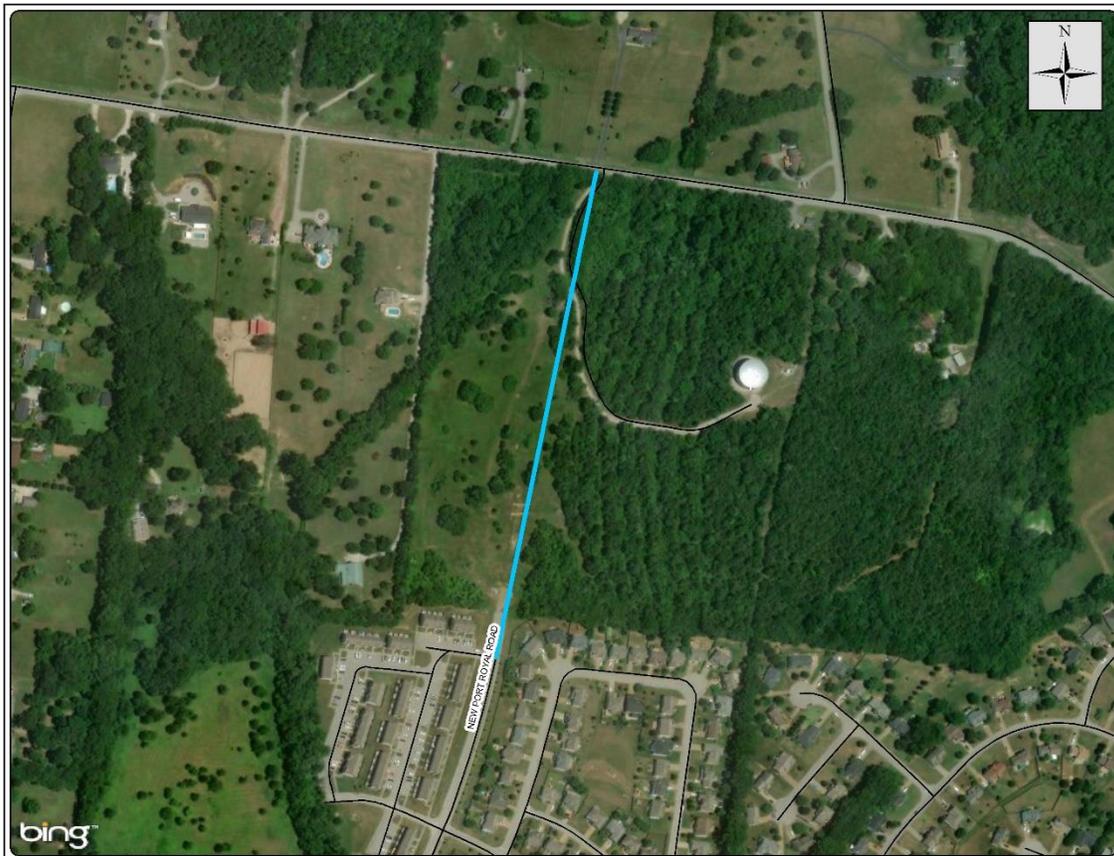
**Improvement:** New 2-lane road

**Functional Class:** Collector

**Priority:** Medium

**Project Summary**

This proposed 2-lane collector would provide a practical connection between the residential area along New Port Royal Road and Thompson’s Station Road. The roadway would run through mostly undeveloped land. This roadway would provide an additional and alternative north-south route on the north side of the City.



**PROJECT 20: PETTY LANE EXTENSION**

**Project Location**

**Termini:** From Cleburne Road to SR 6/US 31/Main Street

**Length:** 1.37 miles

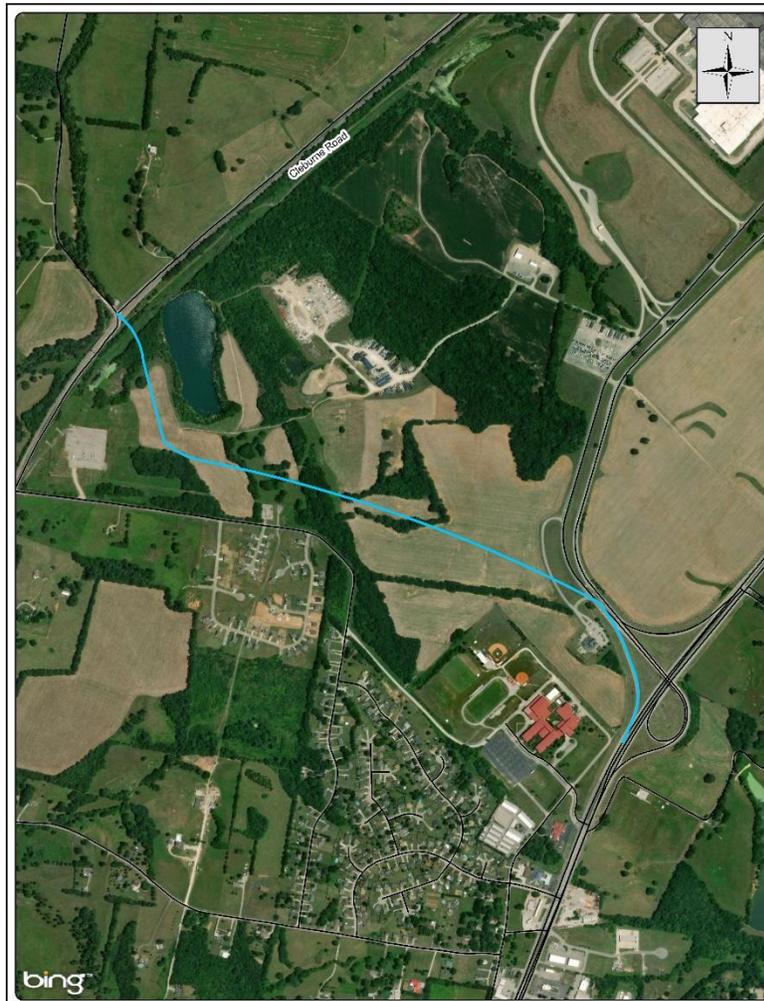
**Improvement:** New 2-lane road

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This proposed 2-lane collector would provide a practical connection between Cleburne Road, which provides access to Beechcroft Road, and SR 6/US 31/Main Street. This roadway would provide an additional and alternative east-west route on the west side of the City.



## PROJECT 21: PORT ROYAL ROAD

### Project Location

Termini: From Duplex Road to Kedron Road

Length: 4.06 miles

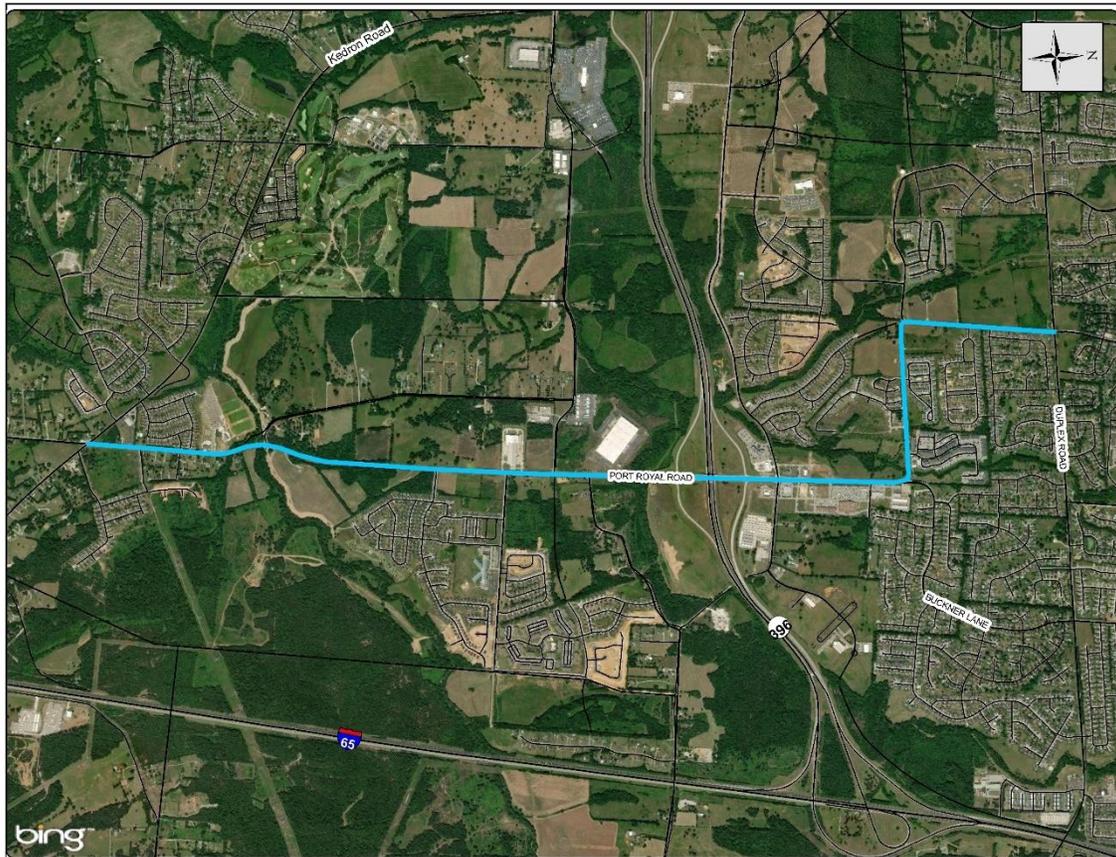
Improvement: Widen from 2 lanes to 4 lanes

Functional Class: Arterial

Priority: Medium

### Project Summary

This improved 4-lane arterial would provide a more efficient north-south route on the southeast side of the City. This roadway traverses residential property and undeveloped areas south of Saturn Parkway and provides access to multiple commercial developments and residential properties north of Saturn Parkway. The improvement would also correct the horizontal alignment and sight distance issues that currently exist. This route is a major connector between Duplex Road and Kedron Road, and provides access to the new Port Royal Park. Without improvements, Port Royal Road is projected to operate at LOS F in 2040.



PROJECT 22: RAY WILLIAMS DRIVE EXTENSION

Project Location

Termini: From Station Hill Drive to Old Kedron Road

Length: 0.79 miles

Improvement: New 2-lane roadway

Functional Class: Collector

Priority: Low

Project Summary

This new 2-lane collector would provide access to potential development and a logical connection from existing residential development to Old Kedron Road/Kedron Road.



**PROJECT 23: RICE ROAD**

**Project Location**

**Termini:** From Terminus of Rice Road to Port Royal Road

**Length:** 2.43 miles

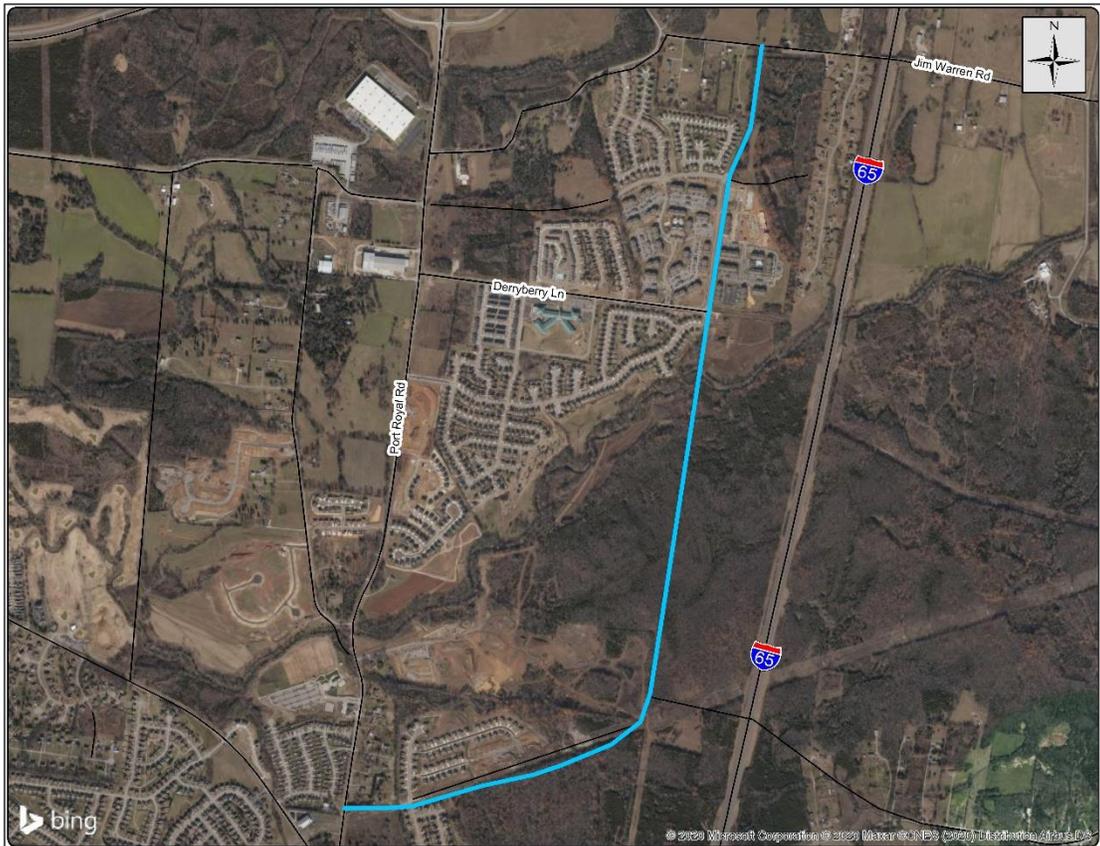
**Improvement:** New 2-lane roadway

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This new 2-lane collector would provide improved north-south access on the southeast side of the City. It would provide an alternative to traffic utilizing Port Royal Road. This roadway would traverse through mostly undeveloped property.



**PROJECT 24: SATURN PARKWAY EXTENSION**

**Project Location**

**Termini:** From I-65 to SR 106/US 431/Lewisburg Pike

**Length:** 1.80 miles

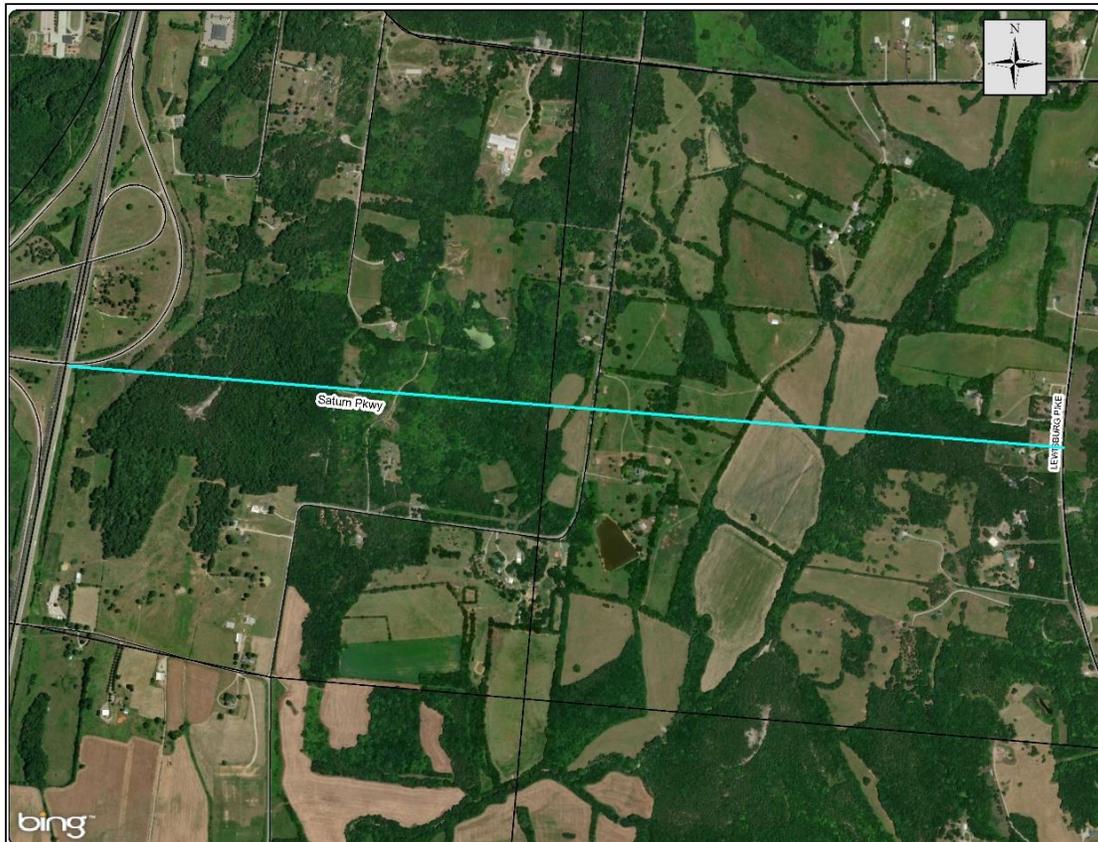
**Improvement:** New 4-lane parkway

**Functional Class:** Arterial

**Priority:** Low

**Project Summary**

This new arterial roadway would extend the existing Saturn Parkway to SR 106/US 431/Lewisburg Pike. This is a logical east-west connection that would only add to future east-west connections on the east side of I-65. This new roadway would traverse residential and undeveloped properties, as well as a couple of local roadways.



**PROJECT 25: SOUTHERN SPRINGS CONNECTOR**

**Project Location**

**Termini:** From Port Royal Road to SR 6/US 31/Main Street

**Length:** 4.01 miles

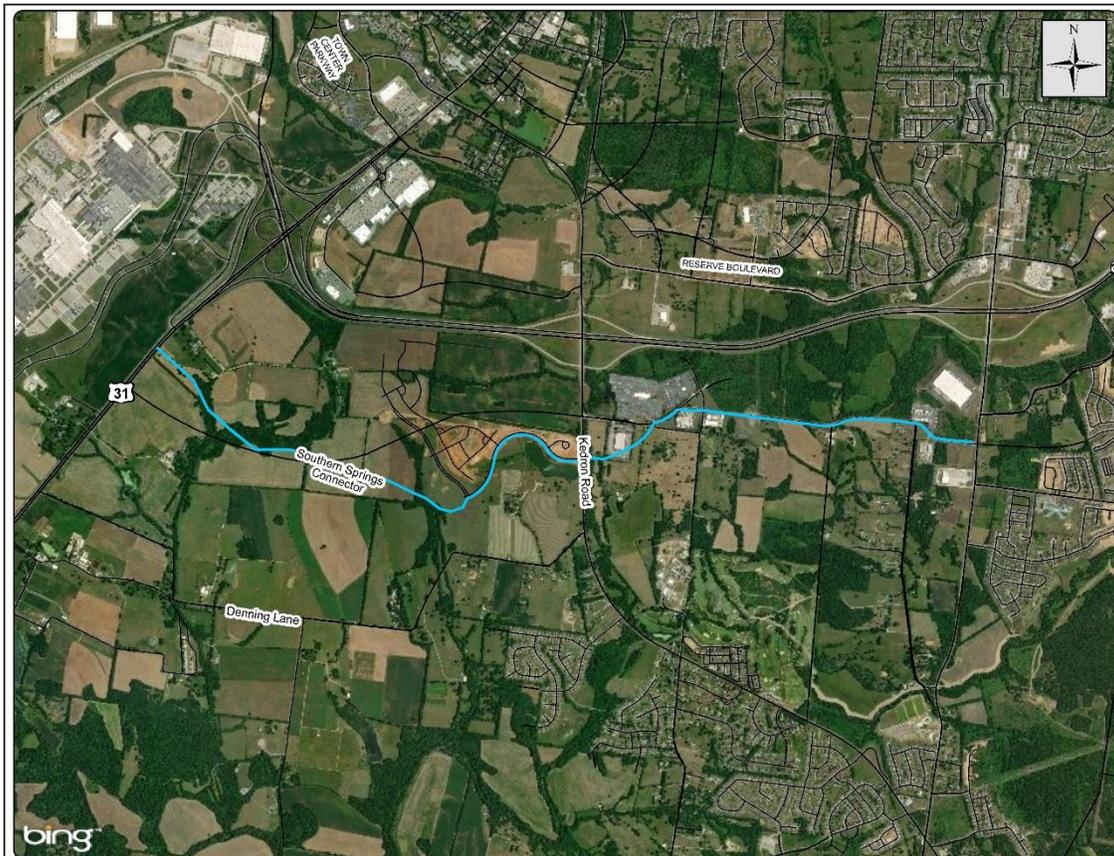
**Improvement:** New 2-lane road, and improve Royal Park/John Lunn Road

**Functional Class:** Collector

**Priority:** Medium

**Project Summary**

This proposed 2-lane collector would provide a practical east-west connection Port Royal Road and the new Southern Springs development. The roadway would run through mostly undeveloped land to connect residential neighborhoods. This roadway would provide an additional and alternative east-west route on the south side of the City.



## PROJECT 26: SPRING STATION CONNECTOR

### Project Location

Termini: From Thompson's Station Road to Spring Station Drive

Length: 1.60 miles

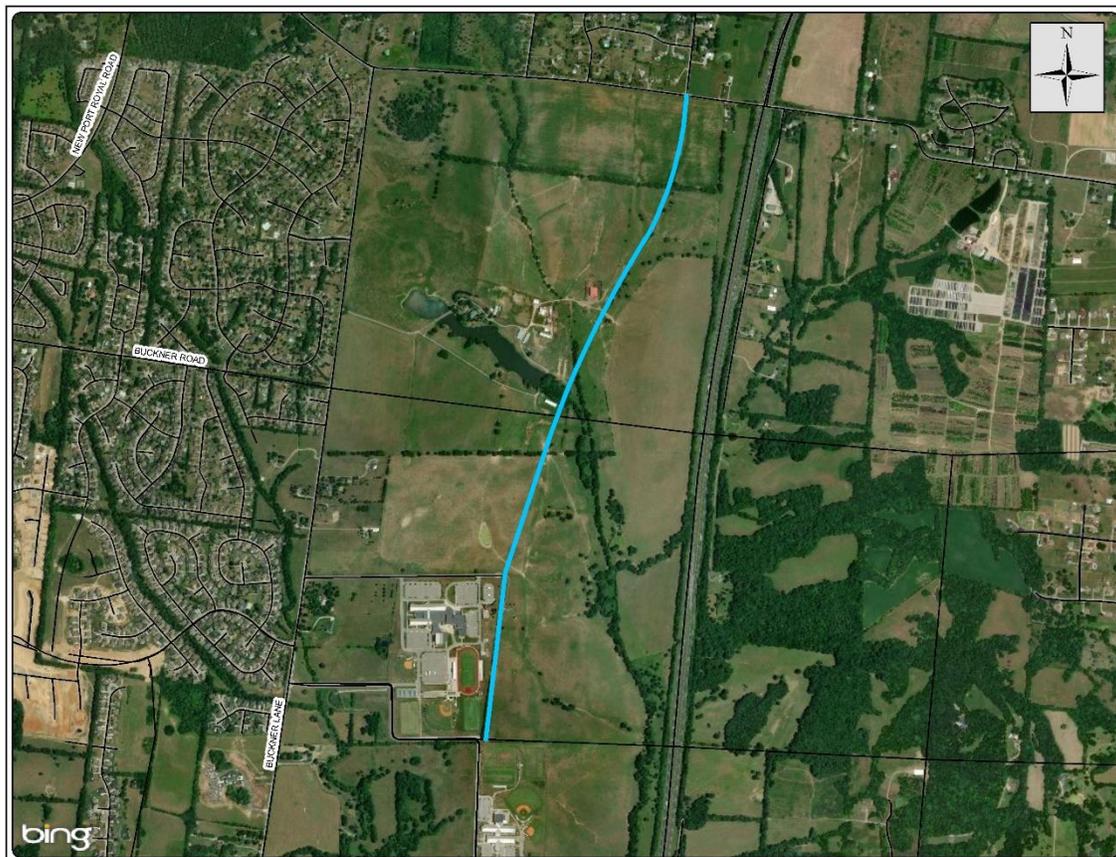
Improvement: New 2-lane roadway

Functional Class: Collector

Priority: Low

### Project Summary

This proposed 2-lane collector would provide an alternative north-south connection between Summit High School and Spring Station Middle School and Thompson's Station Road. The roadway would run through mostly undeveloped land that is planned to be converted to a regional office and commercial development in the future. This roadway would run parallel to I-65 and would provide an additional and alternative north-south route on the northeast side of the City.



**PROJECT 27: SPRING STATION DRIVE EXTENSION**

**Project Location**

**Termini:** From Spring Station Drive to SR 106/US 431/Lewisburg Pike

**Length:** 1.76 miles

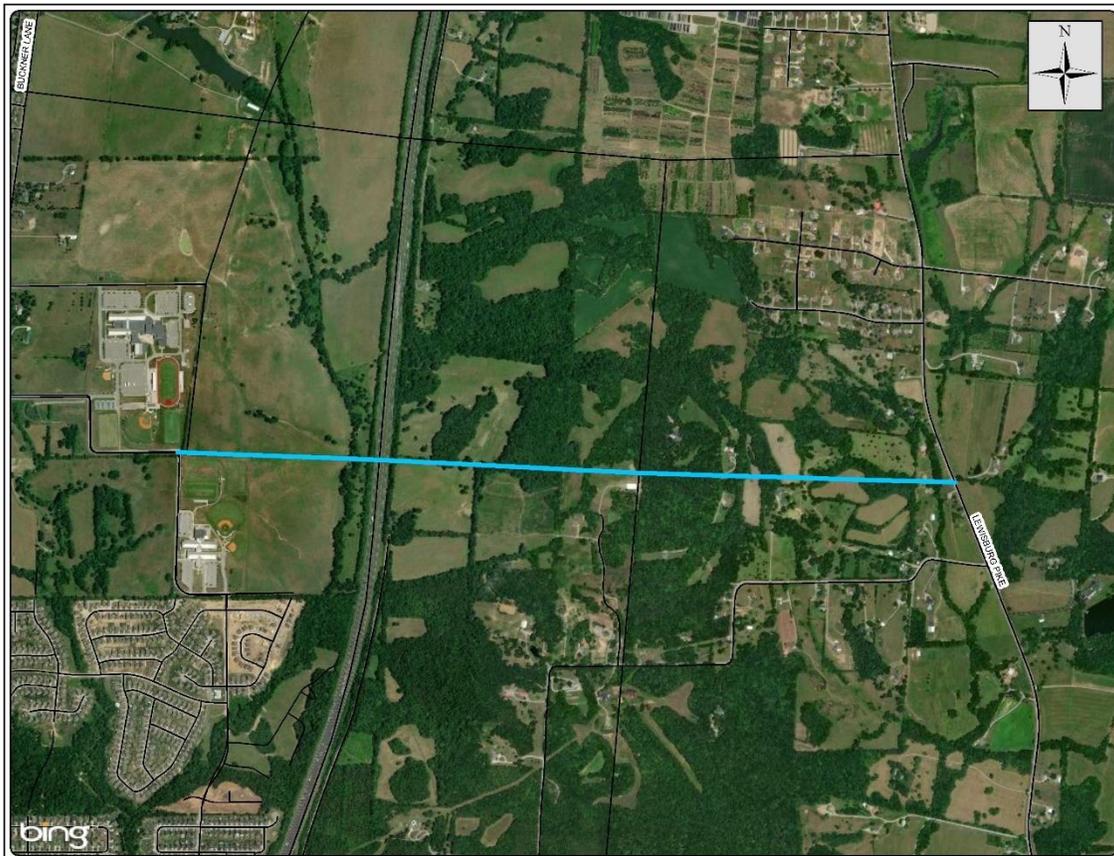
**Improvement:** New 2-lane roadway with turn lanes

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This proposed 2-lane collector would provide an east-west connection from Summit High School and Spring Station Middle School to SR 106/US 431/Lewisburg Pike. This new road would provide an improved and alternative connection across I-65 on the northeast side of the City.



**PROJECT 28: SR 247/BEEHCROFT ROAD**

**Project Location**

**Termini:** From Carters Creek Pike to Cleburne Road

**Length:** 2.21 miles

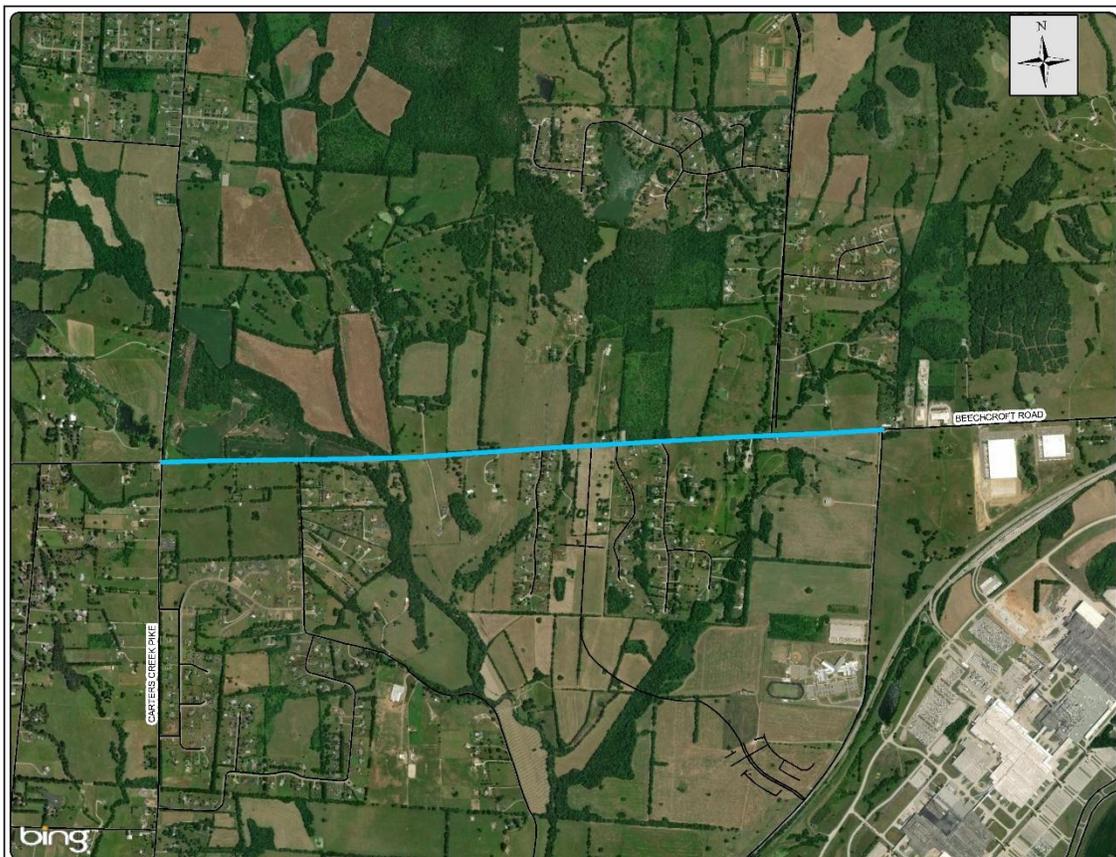
**Improvement:** Widen to provide standard 3 lanes

**Functional Class:** Arterial

**Priority:** Medium

**Project Summary**

This widened 3-lane arterial would provide improved east-west access on the west side of the City. It would also improve the narrow lanes that currently exist. This roadway provides access to multiple residential properties as well as access to I-840 via Carters Creek Pike. A portion of this segment of SR 247/Beehcroft Road is expected to operate at LOS E in 2040 without improvements.



**PROJECT 29: SR 6/US 31/MAIN STREET**

**Project Location**

**Termini:** From Miles Johnson Parkway to Buckner Road

**Length:** 2.18 miles

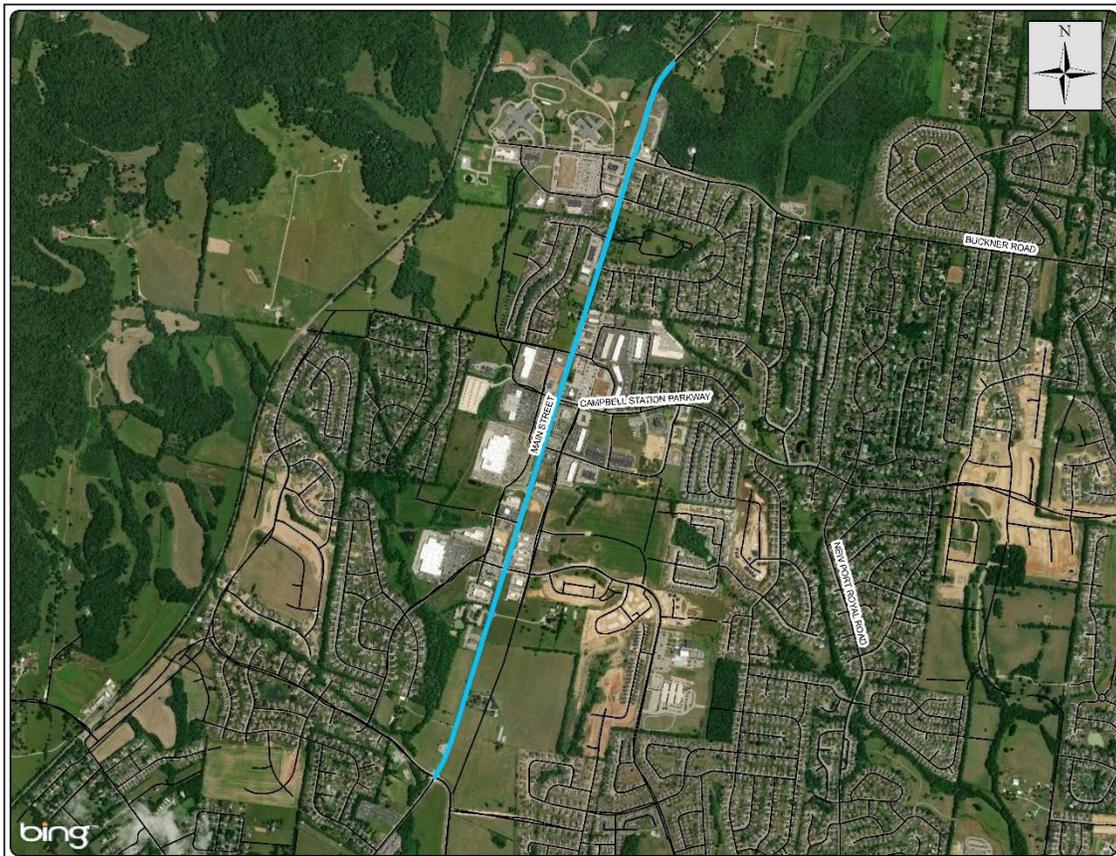
**Improvement:** Widen from 2 lanes to 4 lanes with turn lanes as needed

**Functional Class:** Arterial

**Priority:** High

**Project Summary**

This improved 4-lane arterial would provide a more efficient north-south route on the north side of the City. This roadway traverses multiple commercial and business developments and provides access to numerous residential neighborhoods. Without improvements, SR 6/US 31/Main Street is projected to operate at LOS F in 2040.



**PROJECT 30: SUGAR RIDGE ROAD EXTENSION**

**Project Location**

**Termini:** From Sugar Ridge Road eastern terminus to Dr. Robinson Road

**Length:** 2.01 miles

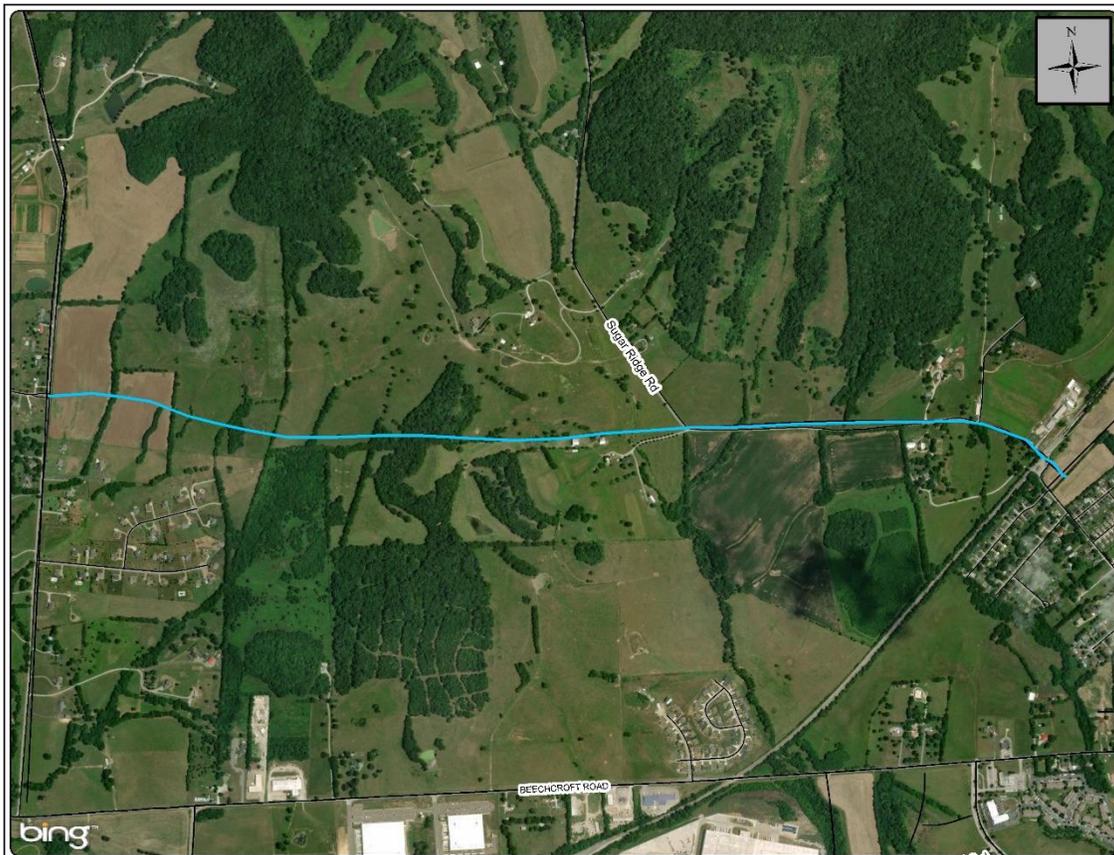
**Improvement:** New 2-lane roadway

**Functional Class:** Collector

**Priority:** Low

**Project Summary**

This proposed 2-lane collector would provide an improved and alternative east-west connection on the northwest side of the City. This new road would traverse mainly undeveloped land and some residential properties. The new extension would intersect Dr. Robinson Road across from Lakeview Road.



### PROJECT 31: TOWN CENTER PARKWAY EXTENSION

#### Project Location

Termini: From Duplex Road to Wilkes Lane

Length: 2.02 miles

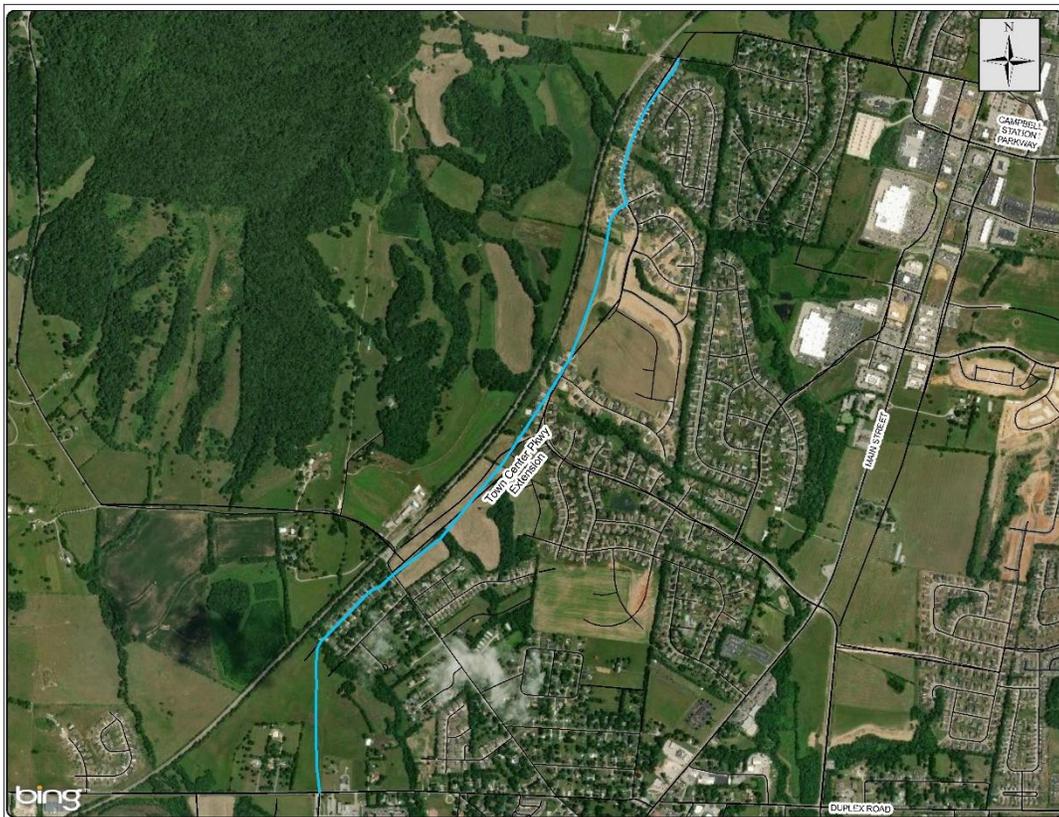
Improvement: New 2-lane roadway

Functional Class: Collector

Priority: Low

#### Project Summary

This new 2-lane collector would provide an additional north-south connection between Town Center Parkway near Kedron Parkway to Wilkes Lane and the commercial development near Campbell Station Parkway. This new roadway would likely go through several existing local roads and would parallel the railroad.



## PROJECT 32: WALL STREET

### Project Location

Termini: From Southern Terminus to Miles Johnson Parkway

Length: 0.61 miles

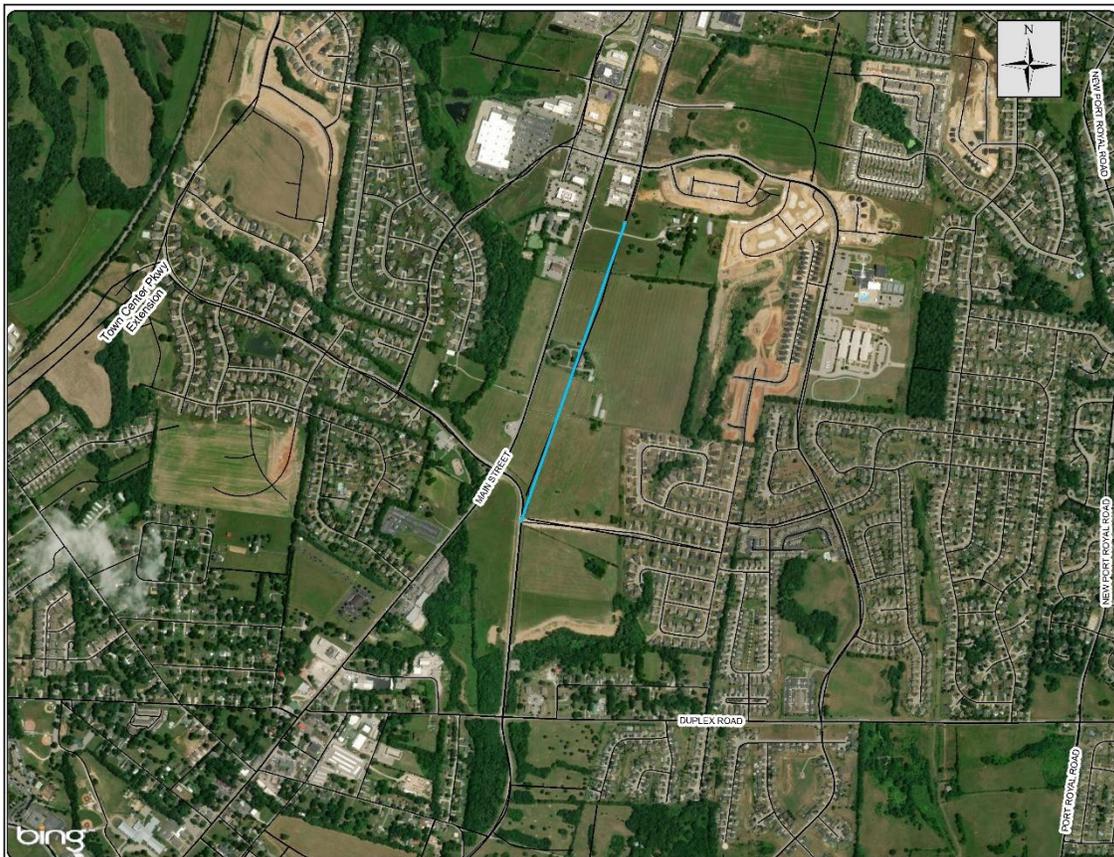
Improvement: New 2-lane roadway

Functional Class: Collector

Priority: High

### Project Summary

This proposed 2-lane collector would provide a practical link between the commercial development along Belshire Way to Miles Johnson Parkway. The roadway would run through mostly undeveloped land. This roadway would provide a logical north-south connection on the north side of the City.



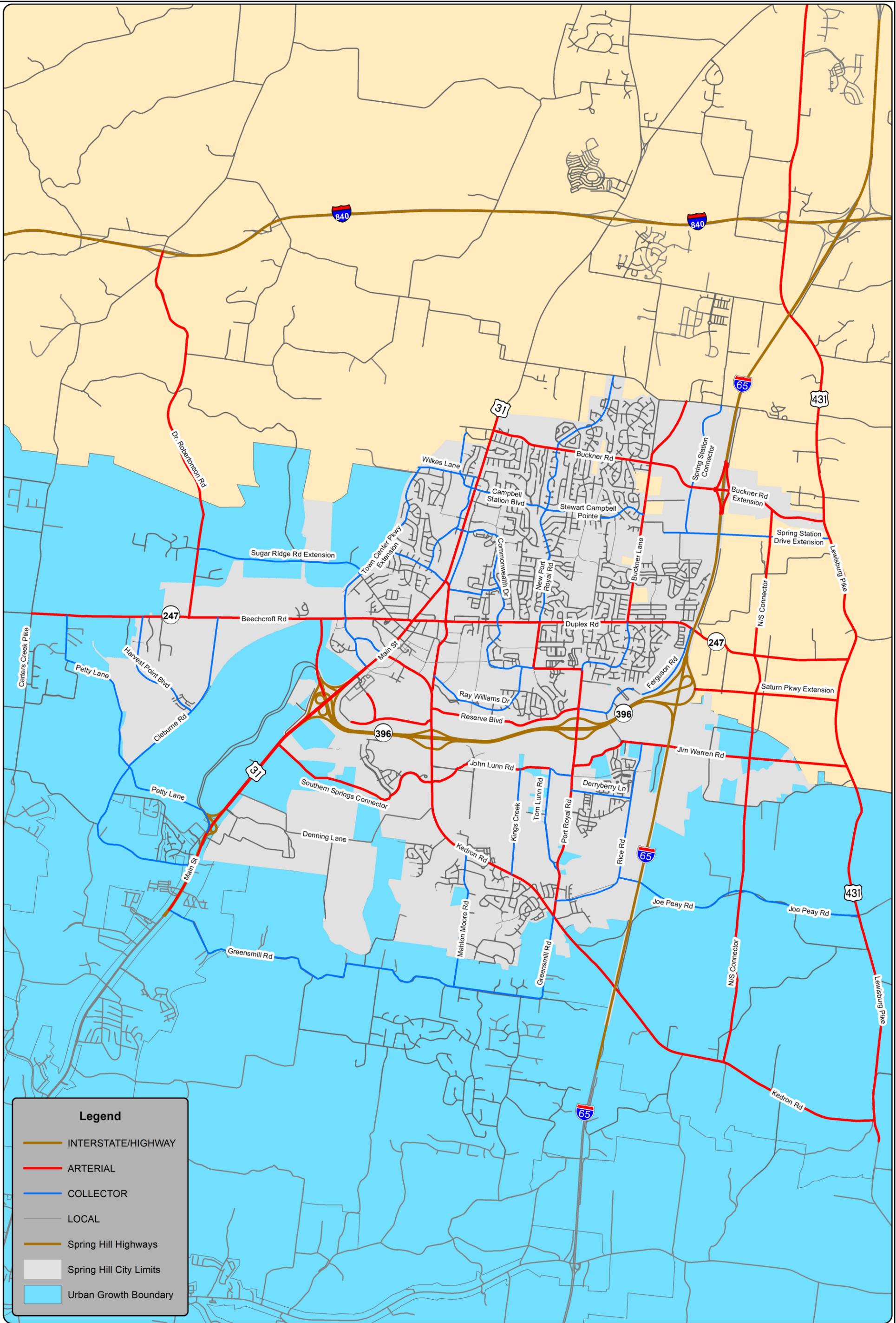


## **FUTURE CLASSIFICATION MAP**

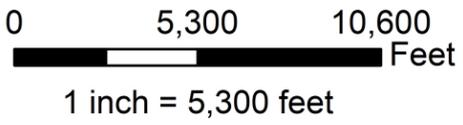
As described in the Existing Conditions report, four primary functional classes of roadways are provided within the study area. Interstates and Freeways are the highest classification of roadways utilized for long-distance travel. Arterials are a class of roads serving large traffic movements for moderate lengths of travel. Collector roadways have the primary purpose of collecting traffic from local roadways and distributing it to its destination or to an arterial roadway.

Figure 3.2 illustrates existing and proposed Roadway Functional Classifications within the City of Spring Hill.

Local streets are not considered major thoroughfares, as their primary function is to provide direct access to land with little emphasis on the movement of through traffic so are, therefore, not classified. However, there are several local connections that are important to the connectivity and circulation for the City of Spring Hill. These connections are identified in Figure 3.3, which details these future local connections that are recommended as development occurs and funding becomes available.

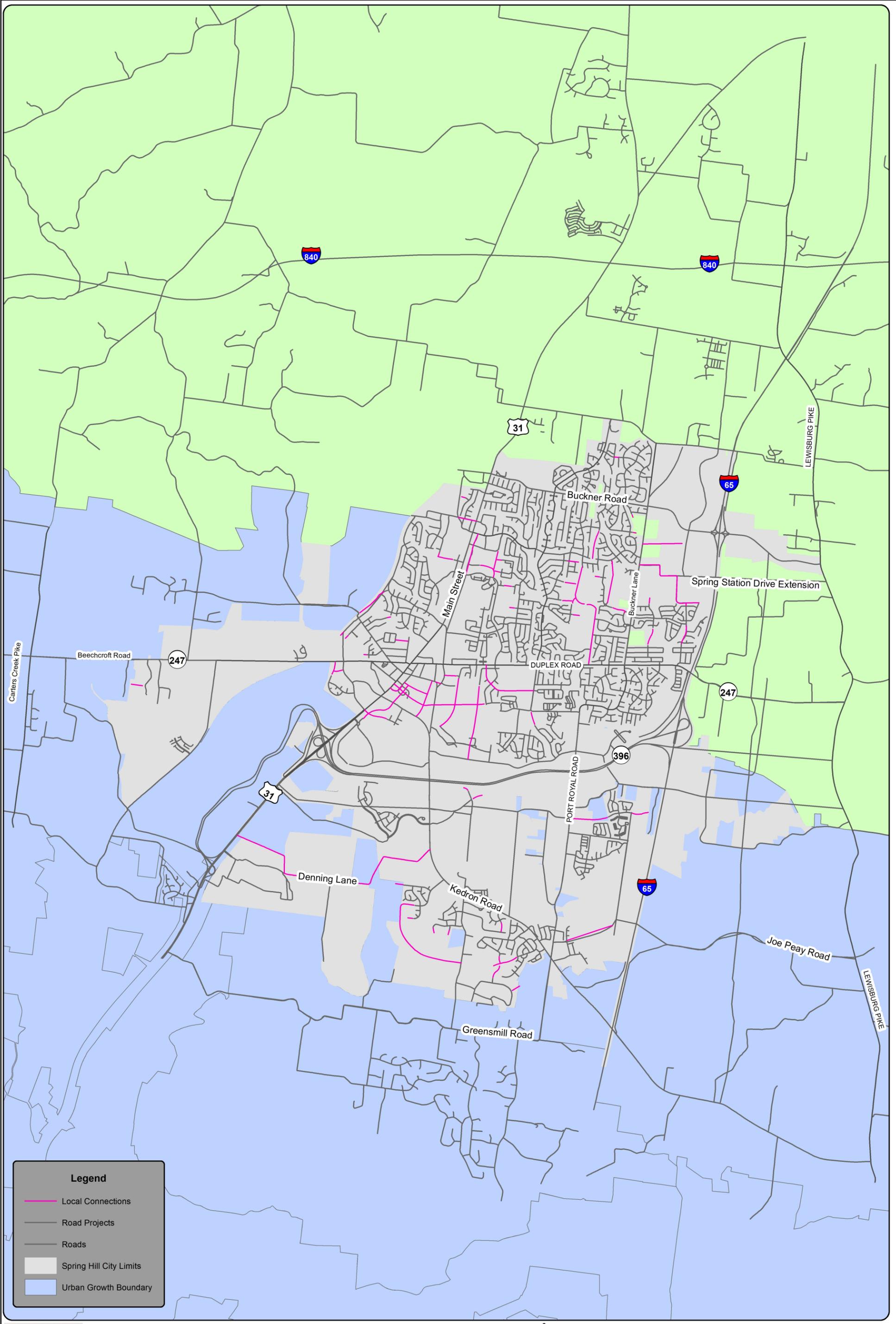


**VOLKERT**



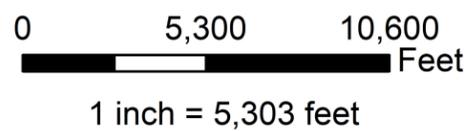
**Figure 3.2  
Proposed Classification**

Note: This map is for presentation use only and not to be used for construction purposes.



**Legend**

- Local Connections
- Road Projects
- Roads
- Spring Hill City Limits
- Urban Growth Boundary



**Figure 3.3  
Local Connections**

Note: This map is for presentation use only and not to be used for construction purposes.





## APPENDIX A. PUBLIC COMMENTS

### SPRING HILL MTP COMMENTS FROM PUBLIC MEETING 10/30/18

- Increase speed limit from 31 East on Campbell Station Road until St. Hubbins. There are no residential driveway connections in this section.
- Buckner Road improvements. When made to 4/5 lanes instead of red lights along length of road propose multiple roundabouts. This will allow for one way travel, continuous flow and less backup. Should be clearly painted and signed for proper use.
- Request for speed limit change to 35 mph on Kedron Road from Saturn Pkwy to 31
- Request to widen Mahlon Moore to 3 lanes with traffic lights at each end. Reduce speed limit on Greensmill at Mahlon Moore. Traffic light and turning lanes at Kedron and Whispering Woods. The safety of our children will be compromised when the Battle Creek School is complete, if we don't complete these before the school opens. The surrounding roads are not meant to sustain 20+ school busses, twice a day.
- Project #4 Keep to 3/4 lanes max. We own a home on Buckner Road – 2801 Sutherland Drive – and our property will be affected.
- We love our home and don't want to move but we are frightened by what might happen with project #4 (Buckner Road). We would like this to be no more than 3 lanes. We are frightened about not being treated fairly based on horror stories we hear about eminent domain.
- Turning south off of Saturn Pkwy and Port Royal is impossible. Please make a light or reconfigure the interchange.
- Strongly recommend having Beechcroft Road and Duplex Road join at 31 to eliminate one traffic light. Realizing 55 and up community have more accidents at intersections!
- Project 1 – Widening US 31 (Miles Johnson to Buckner)
  - Also need to include the road (US 31) from Miles Johnson to Duplex Road.
- My concern is someone from up here should note checking our foundation of our houses. A lot of dust and gravel getting on our court and trenches. And the dust is covering our houses.
- Improvements extension to Beechcroft from Tower Parkway to new conduct (?)
- Sidewalks on B/G Plan, Sidewalks near schools (near Spring Station School)
- Proj 17 – Mitchum Love to sewage easement given for sewage



SPRING HILL MTP COMMENTS VIA EMAIL AND ONLINE FORM

- I am unable to attend the Town Hall Planning meeting on Monday, October 29, however, I wanted to submit a definite concern and question for you. We live in Cobblestone Village, off of Jim Warren Road, off of Port Royal Rd. Since we moved here nearly 3 years ago, the traffic issues on Port Royal Rd. and the 396 interchange have continued to escalate. I don't know if this a TDOT issue, exclusively, or if the City of Spring Hill has any say in the matter, but we desperately need full traffic lights and turn lanes on both the east and west on and off ramps! And the more people move here, the worse it is becoming. I have seen nothing to address this very concerning issue in any of the newspaper articles which have talked about the various infrastructure improvements scheduled to be done.  
My 15 year old daughter will be getting her learner's permit soon and I am extremely concerned for her safety in driving through these intersections without the assistance of traffic signals. We cannot wait years for these traffic signals to be installed. These intersections are extremely hazardous.  
Thank you very much for submitting my concerns and for answering my questions.
- I looked at the website and filled out the comment form. One thing I'm curious about, is how this plan takes into consideration the lack of walkability we have here in Spring Hill. Does this plan address any road projects that will include sidewalks and bike paths? I would hope that any road project we look at doing include sidewalks and bike paths, in hopes we can promote the idea of leaving the car at home and riding a bike (or walking).
- A lot of these projects should have been addressed years ago, prior to the population growth. I'd suggest we start raising some fees/taxes to start paying for these roads now. Also, you're going to get varied priorities from citizens, mainly based on where they live and what roads they drive the most. Top priority needs to be the N/S pathways, including 31 and Buckner Ln (and even I65 once the interchange at Buckner Rd is put in). The sooner we can get these fixed the better. Also, I'd love to see Spring Hill become more of a walkable/bikeable community. Please keep this in mind.
- Top Three Priority Projects/Improvements: (1) Project #1 - Widen 31, (2) Project #3 - Widen Buckner Ln, (3) Project # 9 - Widen Port Royal from Saturn Parkway to Duplex, (4) Project #4/#5 - Widen and extend Buckner Rd from 31 to 431, (5) Project # 11 - widen Duplex from I65 to 431.
- Speaking for myself and my neighbors, we would like to see the roads improved in this order:
  1. highway 31 - but really from 840 to Saturn Parkway
  2. entrance/exits to the Crossings
  3. Port Royal Road
  4. Cleburne Road
  5. Buckner Road



6. Buckner Lane

- Thank you for conducting and participating in the public input meeting last night in Spring Hill.

I am sending this note with an e-mail exchange (below) that I had with Alderman Fitterer out of frustration to show how .... "the wheels keep spinning and the vehicle is going nowhere" .... with respect to traffic issues in Spring Hill.

Alderman Matt Fitterer conducted a survey to collect information from residents on what the project priorities should look like (sounds like the purpose of last night's meeting --- correct?).

It appeared that the overwhelming conclusion of Mr. Fitterer's survey was that Highway 31 needed to be addressed. I estimated that about 85% of respondents to his survey ranked this as the #1 priority.

I think your meeting last night shows the same result (correct?).

- I agree with the #1 project. Definitely a need to have Main Street fixed. But I believe the #9 project should be bumped up to #2. This area has gotten ridiculous. You can't even get in and out of Kroger in a timely manner. Takes 30 minutes to get out of the parking lot! This road needs to be a priority since it is a major road to the interstate. As is, it's a nightmare.
- Top Three Priority Projects/Improvements: #1 Main Street #2 Port Royal from Saturn to Duplex with the main focus being around Kroger.
- Lots of great projects that will improve our wonderful city. Thank you for including the community in your decisions!
- Top Three Priority Projects/Improvements: 1. Project #1 2. Project #3 3. Project #4
- The one important piece of information is missing from the project list. When is the estimated start and completion date of each project.
- Top Three Priority Projects/Improvements: HI way 31. Any other project carries about the same weight of importance as any other. Hi-way 31 is top on my list.
- The main issues I find are in the north-south travel as there are not enough routes and the ones that exist are two-lane roads. These are long over-due considering the population growth. Had those been completed, I would like to see better access to shopping areas such as The Crossings - the traffic circle is a nightmare and could use striping as two lanes as well as instruction to residents on how a traffic circle works.
- Top Three Priority Projects/Improvements: Project 1 - Hwy 31 definitely needs to be widened. It would be great if it could go all the way up to the 840 (I realize that city limits are where this is plotted currently.) Project 3 - The north-south travel is currently dismal. Project 13 - Adding another major north-south connector is long overdue.



- My only comments are this, the projects that will accomplish the greatest traffic volume movement and flow efficiencies serves the greater good of 40,000 plus residents.

These projects should come first.

I don't have a dog in this fight with regards to which project or projects I personally want. My comments are not subjective or emotionally driven. I simply want what has the biggest and most effective impact upon my community.

Coordinating and securing funding, working with federal and state authorities for project scheduling, etc. is what our elected officials and City staff are paid to do.

Help our City with a cogent and effective plan based upon analysis and statistics. Then implement the Greater Good projects first.

Thank you for your time and talents.

- Thank you for your interest in our opinions. I have lived in Spring Hill for almost 30 years. It's fast growth has been remarkable, but stressful for commuting. I have read the proposed projects and would like to give my opinion on a few of them.

(1)US-31 from Miles Johnson to Buckner Rd. As much as US-31 needs attention, I believe that if this project's only intention is between these two roads, then it is a waste of money. It is pointless to widen it for such a small stretch. It needs to be widened from Kedron Rd to 840, in order to be an efficient project.

(9)Port Royal from Saturn Pkwy to Duplex. Planned to widen from two lanes to three. If we are really thinking about growth between now and 2040, then 3 lanes will not be enough. We need five lanes. If we are going to spend the money to fix the roads, then why not do it right the first time and not have to go back and redo it in 10-15 years. Port Royal is a commercial business road that leads to thousands of people's homes. The businesses will do more business, if people aren't scared of sitting in traffic. If it's only widened to three lanes now, then when 5 lanes is needed, there may not be enough room to widen. Build it now, and more businesses will be attracted to this area.

(5)Buckner Rd Extension from Buckner Ln to Lewisburg Pk. When this project starts, I really hope that they have all the surrounding roads leading to it completed 100% first. Since this will become a main artery into the city, they need to widen the current Buckner Rd too. I also hope that they will widen I-65 to four or five lanes from 840 to Saturn Pkwy, either before or during it's construction. Also, put a light at Buckner and Lewisburg Pk. Once this project starts, it will cause another migration to Spring Hill. There will be more development than ever before and if we don't time it perfectly, it could be a huge disaster. This interchange is something the city really needs, but it needs to happen the right way.



Being a new mother, safety is my number one thought of driving. I am greatly concerned about the new schools that are currently being built on Mahlon Moore Rd. That road was not built to sustain the type of traffic that is received from school traffic, especially with big heavy busses. Those roads are dangerous and need to be widened. There also needs to be lights and turning lanes at each end of Mahlon Moore and Hummingbird Ln. There has been talk about this, but I noticed that it's not on the project list. The school is scheduled to open in August 2019, and nothing has been done to the roads yet. My children are zoned for this school. If nothing is done to the roads, then I will not be sending them on the bus. I may also consider moving, if the road safety factor doesn't prove well enough. I do believe that the (25) Kedron from Saturn Pkwy to Port Royal project will help with the flow of volume during peak hours, but Mahlon Moore will still need some work. Thank you again for listening. I hope it helps.

- The plan looks sound, however, there are several projects that need to be expedited.
- US31 Main Street Buckner Lane Buckner Road....especially with the pending Alexander Farms project Port Royal Road @ Saturn Parkway
- Comment in regards to project #6. If you're going to consider widening this portion of Kedron Road from 2 to 3 lanes why not look at doing the same to Old Kedron Road and Miles Johnson Parkway. While project #6 will help move traffic, anyone going north on Main Street from Kedron Road will be stuck traffic and possible in a school zone depending on the time of day and year. Widening Old Kedron Road and Miles Johnson Parkway at the corner of Kedron Road and Old Kedron Road north over Duplex Road to the intersection of Main Street and Miles Johnson. This would help driver avoid the section of Main street between Kedron Road (northern part of project #6) and Miles Johnson Parkway (southern part of project #1), along with any traffic exiting Saturn Parkway heading north on Main Street. Project #25 & #26 would increase the amount of traffic heading north into town too. Drivers would be left with the same congested section of Main Street (between Kedron Road and Miles Johnson Parkway) that they have been use to.
- #1 #6 #21
- Project #3 Buckner Lane - Please ensure this project includes a traffic light at Buckner Rd and Buckner Lane (can we get a temporary sooner rather than later - I saw it on an earlier live stream of planned projects), as well as sidewalks along a widened Buckner Lane. We also hope this project includes making the intersection of Buckner Lane and Thompson's Station Road E permanent with left and right turn lanes. It would behoove the city to make a longer than usual right turn lane for traffic going from Buckner Lane to traveling eastbound on Thompson's Station Road E, or a physical barrier or split to keep people from cutting in later from the left turn lane into the right.



Until the I-65 extension at Buckner Road is complete and I-65 S widened to at least 3 lanes past 840, people will likely still use the Thompson's Station Rd E/Pantall/Critz/431 options. And those parents taking children to school at Bethesda (Cherry Grove is still zoned and either must go this way or take Duplex around). We imagine that the 2 North Bound Buckner Lane lanes will just split, and thus have a long turn lane for both west and east bound traffic. Again, an engineered split or barrier to keep people from cutting in late to make a right turn should be considered. Trust me, the cutting in last minute will happen at as less people make a left in the morning. Project #4 - Buckner Road - Please ensure that this section of Buckner Road (31 to Buckner Lane) is kept from becoming a commercial route (e.g. weight restrictions) and take measures for trucking companies to continue using their existing routes today. The assumption is that as traffic will be lessened on 31 with a new Buckner Rd extension, there's no need for the truckers to come down Buckner Rd with an 840 to 31 route still being efficient and easier access. Please shave down the hill at the crest of Cherry Grove. And this intersection - Bunbury Dr and Maple Circle - will absolutely need some redoing for alignment or signalization. It is already a pain to try to have one person making a left out of Cherry Grove and another making a left out of Newport - so a center multi-lane is not going to solve that problem (regardless of the road widening; the road widening will exacerbate the problem further). Either realignment so a center lane can be option or a traffic light will be needed. I also hope that signalization will occur at New Port Royal and potentially Brixworth Dr. And this project will include sidewalks on both sides, or at least one side. It will be sad to see the trees go at Buckner Rd and Buckner Lane, but it has to happen. Project #5 - Buckner Road Extension - This new exit will be great. But will be useless in the evening commute if TDOT does not also widen I-65 southbound past 840 at the same time. I saw it was potentially going to start looking at that since the Federal Highway folks approved the Buckner Road exit and construction needing to start within 8 years of approval. Anyway, since I-65 S traffic backs up at 840 in the evenings, people will still likely use 840/431/Critz to get into Spring Hill. And I'm assuming that Thompson's Station has no plans to widen or change Thompson's Station Road E, Critz, or Pantall... And when scheduling construction on any of Project 1, 3 or 5, please minimize anything being simultaneous. I think 1 and 5 can be done at the same time, but not 1, 3, and/or 4. And definitely not 3 and 4 together (except for the intersection where they cross). And definitely not 1 and 3 together since that takes out any northbound routes for people. Project #9 - This may be too late to consider. But it would make sense to reduce the Buckner Lane/New Port Royal intersection down to a 3 way vs a 4 way. The thinking is to work with the two business properties so there is access to Daylight Donuts and those businesses through the business parking lot to its south. Having the additional need for the traffic signal to accommodate people coming out of



the Daylight Donuts parking lot, or go straight into it doesn't seem like the most efficient flow of traffic, and instead giving them access through the adjacent business parking lot and their entrance would benefit residents more. While Daylight Donuts may disagree, I actually don't go to their business for this reason - I don't want to sit at the light, nor make people wait for me. And I hope Volkert and other services the city contracts be knowledgeable in Agile or Lean project practices. It's so frustrating to see government stall on much needed projects and then when finally going forward, doing the project that was needed 10 years ago and is now outdated.

- Priority 1 - Project #1 SR6/US31 Priority 2 - Project #3 Buckner Lane Priority 3 - Project #5 Buckner Road Extension Other priorities, Project #8 - Hurt Road (this seems like it could be easy and quick relative to other projects and help keep more local neighborhood traffic off Buckner Lane) and Project #9 - Port Royal.
- We think that proposed plan is a one and realize that it may have change over the next 10 to 20 years with growth. All new developments should have an assessed up front impact fee for infrastructure. Top 5 projects recommended are #1, #6, #20, #21, and #9
- #1, #6, and #21
- Please find below, comments that I have prepared for consideration for the Spring Hill Major Thoroughfare Plan Update. I welcome an opportunity to discuss these comments further should you have any questions.

It is my hope that my 12 years of past experience as City of Spring Hill Alderman, Planning Commissioner and 5 year member of the Transportation Advisory Committee would provide constructive insight into this important project.

My comments are focused more on what I hope the resulting Major Thoroughfare Plan will include.

1) The plan should be easily accessible and tell a clear story of where we are, projects that are needed, and a plan on how to achieve those goals. A bare minimum map with the title "Major Thoroughfare Plan" is not sufficient.

Today, there are no less than 3 versions of the Major Thoroughfare Plan accessible on the City's website, and the text of the 2016 2040 Major Thoroughfare Plan (that includes critical policy language and a catalog of future project segments) isn't on the website (see attached).

Spring Hill MTP Link on the Transportation Advisory Website (2011 outdated version):

<http://www.springhilltn.org/DocumentCenter/View/148>

Spring Hill MTP Link on website Search 1 (map dated 2014):

<http://www.springhilltn.org/documentcenter/view/1029>

Spring Hill MTP Link on website Search 2 (map dated 2018):

<http://www.springhilltn.org/documentcenter/view/4451>





5A) Separate Collector category into Major Collector and Minor Collector classifications, and consider separating Arterial category into Major and Minor Arterial classifications.

Separating these categories further would add additional flexibility for the City and Developers, and promote consistency. For instance, an Access Management and Control policy can be made and adhered to for Major Arterial road segments, while Minor Arterials would have more flexibility. Another example is implementing a policy limiting driveway curb cuts on Major Collectors, while permitting them on Minor Collector segments.

5B) Add Major Collector projects to the development of Traffic Impact Fees  
Adding Major Collector category to the development of Traffic Impact Fees will require formation of “Zones” for the City, but it would greatly improve the ability of the City to complete these projects as development occurs as it would make construction of these roads eligible for Development Credits. Private entities build roads much more cheaply than the City, much more quickly, and there is a fundamental “fairness” accomplished when improvements necessitated by a specific development are completed by those that develop those projects.

6) Coordination of Major Thoroughfare Plan with the Town of Thompson’s Station, Columbia, Williamson County, Maury County and TDOT

The MTP should include policy about how the City, through its Planning Commission, BOMA or Staff, will coordinate the MTP with Williamson County and Thompson’s Station specifically, and other entities more generally.

Specifically, Project N-12 on the most recent Williamson County MTP Update is the Buckner Rd Extension to Lewisburg Pike. That plan has the roadway a 2/3 lane, while the Spring Hill MTP has it as a 4/5 lane. Also, Williamson County MTP includes project N-21, Town Center Parkway Extension to Buckner Ln, not in the Spring Hill MTP (it should be in the Spring Hill MTP, by the way).

Source:

[http://www.williamsoncounty-tn.gov/DocumentCenter/View/3595/MTP-Concept-Map\\_letter?bidId=](http://www.williamsoncounty-tn.gov/DocumentCenter/View/3595/MTP-Concept-Map_letter?bidId=)

7) New Policies to consider including in the Major Thoroughfare Plan

- Formalize the role of the Transportation Advisory Committee (per Resolution 11-122, “to assist in the development of a strategic transportation plan and to recommend annual transportation improvements and priorities for Capital Improvement Plan (CIP) funding.”) What formal role has the TAC been in developing and recommending the annual CIP?



- Bike / Ped “payment in lieu of completion” policy. Improvements for Bike / Ped facilities need to be completed with development just as any roadway improvement or other infrastructure improvements are required to be. The “payment in lieu” of improvements system is being abused, and there is not a system in place to complete improvements once a payment has been made to the City. Just because a project may be difficult to complete should not absolve the responsibility to complete it.
  - Access Management policy
  - Formalize a policy on Cross Easements between parking lots (between private property)
  - Formalize a policy on Interconnectivity between subdivisions
  - Traffic Signalization equipment standard – black decorative posts, and standardization of signal loop detector (radar or video), including LED lit street name signs
  - Street Lighting standard – High efficiency LED down-lighting, versus standard “cobra head” mount
  - ROW Maintenance Agreement policy – maintenance of landscaping in right of way (i.e. center island landscaping and signage)
- 
- It’s hard to tell via the map on Facebook. There has been a lot of growth and several key projects
  - The top priority needs to be siding 31 all the way through Spring Hill. If it isn’t the top priority something is wrong
  - Looks good
  - Buckner Rd, Buckner Ln, Interchange
  - US-31 should be everyone's first priority. I am amazed that we would have a city of this size with such poor roads.
  - 1, 4, 3, 5
  - Buckner Lane in the mornings at 7:00 is out of control! It takes me 45-60 minutes to get from one side of Buckner Lane to the other towards Thompson Station everyday. The other major problem is getting from Target to Kroger on Main Street. Please help us ASAP! Thank you.
  - 1. Buckner Lane 2. Main Street 3. Buckner Road
  - Taking neighborhood streets/backyards is not effective for traffic. It causes more traffic and dangerous situations (crossing streets, children playing in their yards, robberies) for the families living in these neighborhoods. Neighborhoods should not be main streets. Traffic has gotten worse on side roads and in neighborhoods with thru streets, as commuters are using these roads to avoid the two lane main streets that are already overcrowded. Spring Hill’s Main Street has become horrible. The extended portion, where Main Street has 5 lanes has NO traffic. Faster exit to 65 off of Main Street would seem to make the most sense. While building more houses, neighborhoods,



townhomes, etc is inevitable and obviously brings more business to our city, at this time the citizens are already struggling with traffic. More homes=more people=more traffic. Correcting the main roads should be top priority.

- 1, 3, 2
- I agree with the draft.
- #1,#4,#24
- Glad to see a plan.
- 1,3,4
- Unless 31 is improved all the way to 840 that there won't be much hope for traffic on 31. Please keep in mind other traffic while the improvements are made. There are a number of cyclists in the area, with the increased volume of traffic and not many good solutions cyclists put themselves at risk in order to ride and impede traffic and anger drivers that are already annoyed by the congestion. Pedestrian traffic should be considered as well for an overall long term solution. Improvements are much needed. I would prioritize new route options before improvements to existing roadways, however. The impact to congestion of working on existing roadways will be much less if there are good alternates already provided.
- I don't discount the need for major improvements along main roadways, but also feel like small improvements can be made in advance of those large projects to give drivers options. Project #7 is at the top of my list for that reason. And I would add connecting Hatteras Drive to Mercer Lane (New Port Crossing and Cameron Farms) to that as well. Second on my list would be Project #5, but I would also add access to I-65 Third on my list would be the NS Connector, Project #13 as this would provide a lot of alternate routes, but its value would be greatly lessened if there wasn't access off the Buckner extension to I-65.
- First of all, thank you so much for all of your hard work on this plan. My three selections for priority are all based on the fact that they are all roads used by most people in Spring Hill, they often become parking lots with almost no movement. It would be great for all the other projects to happen as well, but obviously, we can't do everything at once. Fixing the problem of the primary arteries of our town should be the first priority.
- 1, 9, 3
- HIGHWAY 31 MUST BE FIRST. IT'S A SAFETY ISSUE!! If we had some kind of major emergency or evacuation order, Spring Hill residents would not be able to quickly leave. More important than even the horrific traffic is the safety of our citizens. Highway 31 MUST be first; it is the main road through our city, and as development has been allowed to occur along this route it has made life miserable for those of us who want to shop locally and simply run errands. Highway 31 MUST be the #1 priority.
- 1, 3, 4



- Connecting the neighborhoods will help traffic flow on alternative streets instead of funneling everyone on the same roads. I look forward to an alternative to traveling to Heritage Campus that will keep my vehicle off of highway 31 and non residents out of Tanyard Springs. I can't tell you the number of times I have almost had an accident because vehicles are traveling down the turn lane instead of waiting for the Trader Way left turn lane. (They start traveling down the turn lane anywhere from in front of Starbucks all the way to Trader's Way or go into the Starbucks shopping center and out Williford Court) Please ask Spring Hill Police Department to patrol this area more during morning hours. Unfortunately this still only leaves us with 2 alternatives for interstate travel for commuting to work. Of those 2 interstate exits we can only control the traffic improvements at Saturn parkway. Pressure on Thompson's Station to improve traffic flow in their area is a necessary step to keep Spring Hill traffic flowing. I see a direct correlation in easier traffic flow and better sales for local businesses. Because of traffic flow there are many times we will NOT shop/eat in Spring Hill because the traffic is too tedious to negotiate. I would love to keep my money local and support Spring Hill.
- #24 (Heritage Bypass), #1 (Hwy 31) , #3 (Buckner.) And New interstate exit!!!!
- All haste needs to be made on the HWY 31 and Interstate exit off of Buckner. Port Royal needs attention to. With Spring Hill as a major commuting town people need to be able to get to 65 quickly. Traffic in town is becoming a problem so much that people are giving that as a reason to move away to somewhere else. I also would like to see Spring Hill complete the road project for Battle Creek as originally planned. I've driven through the Whispering Woods and the neighborhood cannot take that capacity of cars on one road of it's own.
- HWY 31, I65 Exit, Port Royal Rd
- Priorities must be widening and expanding major thoroughfares through the city limits and connecting to Thompson's Station, I-65, Main Street, and Saturn Parkway. Improvements must happen to the Port Royal Rd/Saturn Parkway interchange to include traffic signals and/or rerouting of on/offramps to avoid conflicting turns.
- #9, #1, #3
- Plan looks good. Concerned with the potential approved growth added to this plan over the next 21 years.
- Project 1, 3, & 5
- The purpose for this email is the opportunity to respond to the Spring Hill Major Thoroughfare Plan Public Comment period. Firstly, the Greater Good of the 40,000 plus residents must be the guiding factor in the plan. In that, the proactive and effective traffic management of existing and near term traffic increases must be facilitated. The phasing of



projects to accomplish these first two challenges must be tied into a final phase of regional mitigation that this City can affect. Of the projects listed by the City, it is the task and duty of BOMA and City staff, working with the consulting firm of Volkert, to assess, identify, plan and execute these projects in deliberate phased work.

This plan must be engineered in a manner to piecing a large and expensive puzzle together. The engineering of traffic volume mitigation through expansion of existing roads and creation of new roads is tantamount. Willfully and cogently selecting road projects that directly and proactively address traffic volume flow and management of existing issues must come first. Then tying in projects that continue to positively affect volume flow and redirect in addition to affecting flow increases must come next.

Volkert is a preeminent firm that can map out and engineer solutions to positively impact current and existing traffic flow issues as well as engineer second and third phase projects that work towards mitigation of as many near term and long term traffic volume flow and redirect issues as possible while working with the federal government and state of Tennessee for regional traffic management that the City of Spring Hill must cooperatively affect.

The BOMA board must focus energies on adopting policies, codes, procedures and fee structures that afford this municipality to proactively maintain order and balance to the entire process guiding the City forward while construction of these projects nears as well as during construction phases.

Furthermore, a critical part of this process for BOMA will be assessing the available land parcels within the City limits and how development will impact the roads. New Zoning for remaining land parcels must have a graduated fee metric that directly relates to how the development will impact the adjoining and connecting roads is critical. Higher Traffic Impact Fees for development that necessitates the reclassification of a road must bear the financial impact of that change. In this process, it will no longer be acceptable for the City to accept fees in lieu of work. Every development that has a higher Zone Traffic Impact Metric must make the corrective measures to the impacted roads. The private sector can affect this work more quickly and at a lesser expensive than the public sector.

A final note with regards to Traffic Impact Fees as well as Sewer and Water connection fees, Spring Hill is an asset. An asset of great value. We must stop giving away this asset value for pennies on the dollar. City of Spring Hill development fees must reflect the known and true recognized value of this City. In comparing the current \$521 impact fee to the City of Franklin, it is clear for all to see we have greatly and grossly undervalued our own worth. It is time to address this issue and make a clear and resounding statement. BOMA must legally increase development fees significantly to aid in funding of current and future traffic management mitigation.



In summation, the Greater Good of the 40,000 plus residents of Spring Hill must be proactively served by any Major Thoroughfare plan. Engineering these projects in phased work to address existing issues, mitigate near term increase use issues and ultimately phasing in projects that create proactive and progressive traffic management for the City is wholly required. How this is done is in the hands of BOMA and its consultants.

Thank you for your time and consideration

- First, I would like to thank the City officials and the current administration for everything you're doing to try to improve our traffic situation and plan for our future transportation needs. I believe that the widening of U.S. 31 to five lanes should remain a top priority, even if that means the City has to greatly share in the State's cost to construct it, and even if that means a significant property tax increase for us as residents to make it possible. I'm OK with that. Included in that, as far as priorities as I see them, and the need to pay for them with additional taxes, is the building of an I-65 interchange at Buckner; widening Buckner Road and Buckner Lane to five lanes each; widening Port Royal Road from Saturn Parkway to Kedron Road; widening Kedron Road from 31 to Saturn Parkway, in that order. And I'm fine with the remainder of the projects listed on the map. So, basically, I agree with the way the projects are currently listed on this map. Thank you all for the opportunity to comment on this important planning process!
- U.S. 31 widening through SH; I-65 interchange and related Buckner extension; and the widening of Buckner Road (which will be a necessity with the extension of Buckner Road for the interchange).
- It's about as good as it's going to get. Extending all the way to 840 is ideal but I understand the difficulties with how the land flows, there's so many other projects and trying to play catch up. I will hope this draft is also forecasting the growth during the time it will take to complete.
- 1. The first three listed on the draft are what they should be 2. Slow down the home developers so the road system can catch up 3. Slow down the home developers so the road system can catch up
- Hwy 31 widening is the first priority but since it is not within the State of Tennessee's 3 year plan, can the City look at using Miles Johnson/old Kedron Rd with the connection to Kedron Rd then on to 31/Kedron Pkwy as an alternative to 31S? Possibly make that section of 31 the "historic" district by having a majority of the traffic bypass this section? I am not sure why the plan stops at Miles Johnson, maybe because of historic significance or environmental restriction, but this could be an alternative to alleviate some of the congestion on 31. As an interim to the Buckner Rd extension across Buckner lane, can the City look at a installing a traffic signal at this intersection? I believe many of the road suggestion on the proposal would help increase biking/walking, as long as they include sidewalks. A lot of families look for these when selecting a location to live and I believe that in



turn would be beneficial to the City and our local businesses. (Project #24, #9 & #4) Thank you for your continued dedication to improving Spring Hill's roadways!

- See comments above
- You absolutely cannot redirect the traffic through a residential neighborhood. The neighborhoods were not meant to handle that kind of volume. That would be very dangerous to all of the houses involved to be that close to that volume of cut through traffic.
- Hwy 31 should be the top priority
- Good start to making improvements.
- 1) Add traffic light on Port Royal exit from 396 2) Add center and turning lanes at minimum (preferably 4 lanes) to every street to help move traffic 3) Build road infrastructure "before" adding new businesses such as Carothers Parkway in Franklin...traffic lights and additional turning lanes are added prior to completion of building construction
- Please provide the city updates on various road projects every quarter or so. This could be part of the transportation committee minutes that are published.
- Project 5 Project 9 Project 6
- Looks great, very excited about the new changes.
- Project 9, Project 9, Project 9
- From what I can tell, it's a good plan and most of the projects can't happen soon enough. As part of Project 9, I hope that left-turn lanes are added very soon at the stoplight in front of Daylight Donuts. This new stop light has actually worsened traffic since cars turning left cannot do so once the left-turn arrow is gone since the amount of oncoming traffic is so heavy. The left-turning vehicles just sit and wait which causes traffic behind them to back up.
- Project 1, Project 9, Project 3
- Hello, thank you for making this plan available. I live on Countess Ln. next to Port Royal. Outside of the major projects outlined, I wanted to voice a separate concern and that is the constant connection of side roads. Countess Ln. is not built to be a road you cut through. If it is connected to Port Royal via a light or a roundabout, people will use it to cut around the lights they hit on Port Royal to try and get to/from the highway faster. This would be very dangerous for our street, the families/children on our street, the cars that park on the side of the road, etc. There would be no way to stop people from cutting around, and Countess Ln. could easily become a parking lot of it's own during high traffic times of day from people trying to avoid traffic. With cars on the side of the road, Countess becomes basically a 1 lane street, but it's fine and we all wait for each other, wave each other through, because it's simply our own traffic, not through traffic. Please consider NOT connecting Countess to Port Royal and instead extending it to a cul de sac. While other roads are used to cut around things from time to time, ours wasn't built for



it, and given the layout of things, it'll be used all day, everyday, by people who want to avoid as much of Port Royal as possible. When it comes to Port Royal, I didn't put that in my project priority list because a 3 lane widening from 2 would do little for the actual congestion. I assume the 3 lanes is creating a turning lane. However most people are not turning across traffic to enter businesses. Most are turning right into the connecting roads and parking lots. The issue is how many people are trying to get through Port Royal over to Buckner or Duplex. A turning lane would not cut that down or it would be negligible. Because of all the traffic getting off the highway, Port Royal in front of Kroger can be just as bad as 31. For people on this side of town, Port Royal IS our 31... in terms of traffic issues. That is why an exit off 65 farther north is needed, so Saturn Parkway and Port Royal is not the only way for people who take the highway to enter the heart of town. The exit would relieve stress on Port Royal, and Buckner as well as a cut through from Port Royal to Duplex. Thanks for your time.

- 1, 5, 3



**APPENDIX B. TECHNICAL MEMORANDUM**

December 31, 2020

Mr. Chuck Downham  
Assistant City Administrator  
City of Spring Hill  
199 Town Center Parkway  
Spring Hill, TN 37174

**Re: Spring Hill MTP Amendments - Technical Memorandum**

Dear Mr. Downham:

This memorandum provides an update and recommended response to recommended amendments for the Spring Hill Major Thoroughfare Plan. These recommended amendments have been tracked since adoption and will be presented for consideration and recommendation by the Transportation Advisory Committee to the Planning Commission and ultimately consideration and adoption by Resolution by the BOMA. The requested revisions and detailed recommendations are outlined below.

#### **Major Thoroughfare Plan Amendments**

1. Buckner Road Extension and Interchange – amend alignment on MTP to reflect current preliminary plan.
  - Recommendation: Add the current proposed alignment for Buckner Road Extension and Interchange to the GIS files as well as the Revised MTP Map (see attached updated map).
2. Buckner Road development area – evaluate classification of select road segments connecting with Buckner Road on east and west side of new interchange.
  - Recommendation: Based upon the revised development plan for 2660 Buckner Lane project presented to the City, add the location of the new collector roads to the GIS files as well as the Revised MTP Map (see attached updated map).
3. Denning Lane – reclassification from “Collector” to “Local” street.
  - Recommendation: Currently Denning Lane is designated as a collector road with a proposed improvement designated as a "Low" priority. The existing land use along the road is rural residential to rural/farmland. The land use plan calls for a combination of residential neighborhood areas to the east and innovation area/mixed use neighborhood area to the west. Given this information and the uncertainty of the properties to the west of the roadway, it is recommended that this road be downgraded to a local street until there is additional information provided as it relates to the areas planned for innovation and mixed use. At that time, consideration should be given to the possibility of upgrading the road for at least a portion to collector status. Recommend changing classification from Collector to Local Street.

Should the recommended reclassification from collector to local street be approved, it should be understood that this is further recognizing this area should and will remain in its current rural character and development pattern for the foreseeable future and proposed development along Denning Lane will be low density in character so as to preserve the rural character of the area and lower intensity traffic patterns resulting from such development. Conservation design should be

promoted as an acceptable land use development methodology. In addition, it should be recognized that Denning Lane is currently substandard in width for even being classified as a local road and should be improved to the current local road standards using a rural cross-section that provides sufficient lane width and shoulders for the safety of motorists. Further recommend revising GIS files as well as revise MTP Map (see attached updated draft map).

4. Cleburne Road – extend Collector street designation further south toward Carters Creek Station Road.
  - Recommendation: Recommend extending Collector classification further south to Carters Creek Road and revise GIS and MTP Map (see attached updated draft map).
5. Extend Ray Williams Blvd (Collector) to connect to Miles Johnson/Kedron (current map does not connect).
  - Recommendation: Recommend extending Ray Williams Blvd to Miles Johnson/Kedron Parkway and revise GIS and MTP Map (see attached updated draft map).
6. Reevaluate Local Street Connections to include Cadence Drive and unnamed connection between Fitts and Nasdaq.
  - Recommendation: Recommend adding these local streets and revise GIS and MTP Map (see attached updated draft map).
7. Reevaluate unnamed local street connections in vicinity of Nasdaq and Fitts.
  - Recommendation: Recommend adding these local streets Recommend adding these local streets and revise GIS and MTP Map (see attached updated draft map).
8. Reevaluate N/S Connector to see if it can follow existing property lines.
  - Recommendation: Recommend aligning this N/S Connector to follow property lines where logical and feasible streets and revise GIS and MTP Map (see attached updated draft map).
9. Narrative for Buckner Road Extension/Interchange should reference preparation and adoption of access management policy for extension roads on either side of interchange.
  - Recommendation: Access management is the control of driveways and intersections to manage access to land development, while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed. Implementing an access management plan for the corridor that is based on the strategies and principles described in a new ordinance will encourage and help maintain smooth and safe traffic flow. Access management is critical for new roadways and highways to prevent poor access control and mobility and safety concerns. Designing roadways with properly managed access is always preferred over retrofitting roadways with poor access management.

Failure to manage access is associated with the following adverse social, economic, and environmental impacts:

- An increase in vehicular crashes
- More collisions involving pedestrians and cyclists
- Accelerated reduction in roadway efficiency
- Unsightly commercial strip development
- Degradation of scenic landscapes
- More cut-through traffic in residential areas due to overburdened arterials
- Homes and businesses adversely impacted by a continuous cycle of widening roads

- Increased commute times, fuel consumption, and vehicular emissions as numerous driveways and traffic signals intensify congestion and delays along major roads

Based on this information, recommend the development of a detailed access management plan for the Buckner Road extension from Buckner Lane to US 431/Lewisburg Pike. This plan should include, but not limited to, the following characteristics:

- Driveway spacing
- Driveway width
- Throat length of driveways and side streets
- Signal spacing
- Median cuts
- Raised island locations
- Internal/cross access
- Frontage roads

10. Policy recommendation in body of Major Thoroughfare Plan for formal adoption of Traffic Impact Study requirements that outlines parameters by which the City requires a Traffic Impact Study.

- Recommendation: Having a formal Traffic Impact Study policy is extremely beneficial for any municipality, especially one that is experiencing growth at a rate like Spring Hill. Local cities like Franklin, Columbia, and Nashville have Traffic Impact Study (TIS) requirement policies and procedures in place. The existing TIS Requirements (dated April 2018) for the City of Spring Hill have been reviewed. While these requirements do lay out some typical guidance and procedures, it leaves the preparation of a TIS open to interpretation. Our recommendation is to develop a strict set of guidelines and procedures that a developer/applicant must follow, including a scoping meeting, tiers of a TIS, methods and software for analysis. It is also recommended that each TIS is reviewed by a professional traffic engineer. Many peer cities, including Franklin and Columbia, use an on-call consultant to act as the City's traffic engineer to provide review of all traffic studies. Review fees are paid by the developer/applicant.
- Based on guidance from the City, it is recommended the MTP document address this and provide recommendations for a formal policy to be adopted and updates to the Site Plan application process/checklist.

11. Policy and capital improvement plan recommendation to synchronize and connect all City traffic signals together under an intelligent transportation system (ITS) system centrally located within the City of Spring Hill. This includes dedicated professional staff for operation and maintenance of City-wide signal system.

- Recommendation: Federal requirements now call for any agency that implements any kind of signal coordination or ITS program to eventually develop a citywide or regional architecture. To function effectively, the City must commit to providing proper maintenance and operation. Timing plans must be monitored and updated regularly. Whether maintenance and operations are monitored by in-house staff or by consultant, the agency should have the staff capability to understand the basic functions of the system and determine where and when changes and modifications are needed. Signal interconnection systems have varying degrees of benefit. While any coordination may reduce delay somewhat, it has to be weighed against the costs of installation, operation, and maintenance. If the corridor functions well without excessive queuing or delay, interconnection may not be cost effective.
- Based on guidance from the City, it is recommended the MTP document address this and provide recommendations for a more detailed review and study to determine if it is feasible for the City to begin the implementation of its own ITS system.

12. Belshire Way – extend Collector street designation further east to US 31/Main Street. Collector designation currently terminates at Belshire Village Drive.
  - Recommendation: Recommend extending Collector classification further east to US 31/Main Street and revise GIS and MTP Map (see attached updated draft map).
13. Rice Road – extend Collector street designation further west to Port Royal Road. Collector designation currently terminates at Beverly Road.
  - Recommendation: Recommend extending Collector classification further west to Port Royal Road and revise GIS and MTP Map (see attached updated draft map).

**Conclusion**

We will now await concurrence and agreement on the above recommendations. If there is concurrence, we will prepare suitable amendments to the MTP document reflecting the recommendations contained in this Technical Memorandum.

Should you have any questions or need additional information, please contact me.

Sincerely,



Dyan C. Damron, PE, PTP  
Traffic Engineering & Planning Manager  
Volkert, Inc.