

### III. COMPLETING OUR STREETS

#### A. Vision, Objectives and Guiding Principles

Goals and objectives for the *Comprehensive Plan for Tippecanoe County* were generated through an extensive effort by the Citizen Participation Committee in 1976. That effort reached hundreds of citizens and culminated in the adoption of the following goals and objectives that guided the original 1978 *Transportation Plan*, the 1981 *Comprehensive Plan for Tippecanoe County* and all subsequent APC plans. The Citizen Participation Committee updated the following transportation vision and objectives in 2006 and 2011.

##### *Vision*

*Develop a coordinated, safe, and interrelated transportation system, integrating thoroughfares, transit, airport facilities, passenger rail service, freight movement, and pedestrian and bicycle facilities to adequately serve the entire community, guided by the adopted Land Use Plan, and compatible with economic development, financial resources, and cooperative governmental and citizen action; linking Tippecanoe County, Lafayette and West Lafayette with each other and to the region, state and nation.*

##### *Objectives:*

- A. Improve Sustainability (the long term maintenance of our economy, environment and social institutions).
- B. Preserve the capacity and improve efficiency of existing facilities.
- C. Enhance mobility and accessibility.
- D. Improve the safety and security of all road users.
- E. Reduce the effects of climate change.

Performance measures are incorporated for the first time in the 2040MTP to measure progress toward the Vision and Objectives and are found later in this chapter.

#### B. Pedestrian and Bicycle Facilities

Traditionally, the word “transportation” evokes images of automobiles and roadways. That picture has shifted with passage of the last three national transportation bills which recognize all modes of travel. Many communities have embraced and developed a multi-modal approach to transportation planning which takes into consideration automobiles, railroads, airlines, mass transit, bicyclists and pedestrians.

Locally, we now recognize that walking and bicycling are viable modes of travel for commuting and shopping. A network of connected trails, sidewalks and bicycle facilities promotes a quality of life that attracts strong economic development and tourism. Bicycling and walking in our community have grown significantly and our transportation planning now includes bicycle and pedestrian needs.

West Lafayette, Lafayette and Tippecanoe County have been active in building pedestrian and bicycle facilities for many years. Many of them have been built as a part of road improvements. Others have been stand-alone projects. Several have been built in conjunction with private developments. Both cities have established and active sidewalk replacement programs.

The City of West Lafayette has a well-developed trail and bike lane system. The City of Lafayette has several trails and is currently completing a *Master Greenways and Trail Plan*. The County has incorporated sidewalks in its road construction projects in the urban area and has been developing the Wabash Heritage Trail for over 30 years. While INDOT has been slow to accommodate pedestrians and bicyclists, facilities are now included in many of its projects.

##### 1. West Lafayette

The City of West Lafayette has had a trail plan for more than 15 years and is very active in constructing trails, bike lanes and sidewalks. Since opening its first trail over a decade ago, the city has constructed more than 21 miles of trails throughout the community with two trails designated as National Recreation

Trails. There is approximately .66 miles of trails per 1000 residents, one of the highest ratios in the state. The city has nearly 14 miles of bike lanes and 109 miles of sidewalks. **Table 4** summarizes the major trails and footpaths. **Figure 7** shows West Lafayette’s Trail Plan and facilities.

West Lafayette’s pedestrian and bicycle network is extensive with facilities connecting all major residential subdivisions, major parks, schools and shopping areas. The trails average 8 feet wide. There are over 17 miles of paved trails, most with an asphalt surface. West Lafayette has over 4 miles of footpaths that are either mulch or grass. They are typically narrower and average 6 feet wide, varying between 2-8 feet wide.

West Lafayette also has a fitness trail through several older neighborhoods that is over 2 miles long. It was opened in 2010 as an urban trail intended primarily for walking.

The city continues to construct new trails. Recent trail construction includes lengthening the Wabash Heritage Trail by 0.81 miles using Transportation Enhancement funds, a trail along Harrison Street (0.53 mile), 0.40 mile extension of the Cattail Trail along Northwestern Avenue, constructing 0.21 miles in conjunction with the reconstruction of Yeager Road. Additionally the reconstruction of Cumberland Avenue will add 0.45 mile. The city is also developing road plans that will include sidewalk and trails on Happy Hollow, Williams Street and Yeager Road north of Kalberer Road.

The City has 12.6 miles of striped bike lanes. This does not include 0.8 mile of bike lanes along South River Road that the city will obtain after the completion of the US 231 Relocation project. Bicycle lanes on Salisbury Street from Kalberer Road to Stadium Avenue allow bicyclists to travel nearly the entire length of West Lafayette. Feeder routes connect Grant Street, Lindberg Road, Cumberland Avenue and Kalberer Road. There are also bike lanes along a portion of Soldiers Home Road.

**Table 4, Major Trails in West Lafayette**

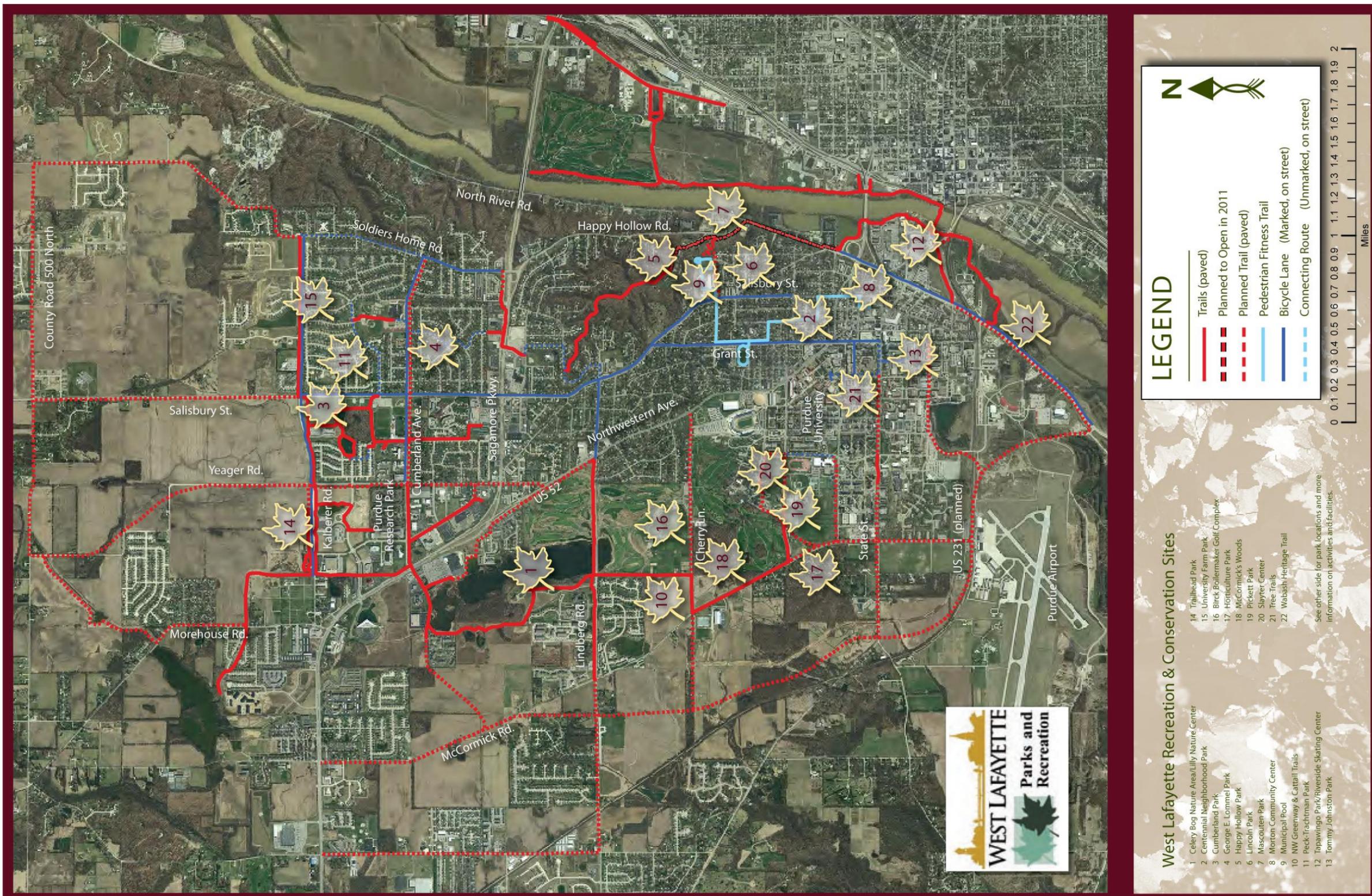
Paved Trails		Footpaths	
Trail Name	Length (mi.)	Trail Name	Length (mi.)
Cattail Trail*	4.33	Celery Bog	1.50
Northwest Greenway*	7.78	Happy Hollow Park	1.00
Wabash Heritage Trail	1.86	Michaud-Sinninger Woods	0.50
Trolley Line Trail	0.92	Northwest Greenway	0.87
Nighthawk Trail	0.31		

\* Designated as National Recreation Trails.

In 2010, the city had 109 miles of sidewalks that are primarily located south of Leslie Avenue and north of Sagamore Parkway. Between these two areas sidewalks are scattered. The city recently added sidewalks to Sycamore Lane and will be constructing a new pedestrian cross walk on Salisbury and updating one on Tapawingo with federal safety funds.

The City’s Trail Plan calls for infilling trails and bike lanes in the older parts of the City. New trails and bike lanes will be added in the growing north parts of the City. Future trails include Soldiers Home Road and CR 75E (1.63miles), Salisbury Street/County Farm Road (0.69 mile), Morehouse Road (0.16 mile), Leslie Avenue (0.25 mile), Cherry Lane (0.36mile), CR 500N (0.65 mile), and Yeager Road from US 52 to the city limits (1.52 miles)

Figure 7, West Lafayette Trail Plan



Source: City of West Lafayette

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## 2. Lafayette

The City of Lafayette has focused primarily on developing a trail system, and repairing and upgrading its sidewalks. Most of the trails (12.9 miles) have been in and around parks, built in conjunction with road improvements. Connecting trails have subsequently been constructed into adjacent neighborhoods and commercial areas. While most of the trails are separated from traffic, others are located adjacent to the curb (sidepaths).

In the northeastern part of the city Munger Park's 32 acres and one mile trail are a focal point for a system of trails that connect to Glen Acres Elementary School and two nearby neighborhoods along Greenbush Street and Pine Lane.

Armstrong Park on the city's south side is 30 acres in size. It is an active recreation facility with a .7 mile trail system. The park is linked to the Linear Trail next to the Norfolk Southern Railroad tracks (1.1 mile) and a sidepath along South 18<sup>th</sup> Street (0.7 mile) to Veterans Memorial Parkway South (0.7 mile). Another sidepath made of pervious concrete is located close to the end of the trail on Veterans Memorial Parkway along Concord Road (0.8 mile long).

The third focal point is located at James Riehle Plaza where the Wabash Heritage Trail follows the Wabash River for nearly 2.5 miles. The surface is paved and both pedestrians and bicycles can use this portion of the trail. From Riehle Plaza, trail connections are made to the west across the Wabash River on the Myers Bridge and to the north connecting with a trail along North 9th Street.

There are two short bike lanes in the city: one along South 9th Street between Logan and Teal Road and one on Greenbush near the Market Square shopping area. Both are only for one direction of travel and each is 0.1 mile in length.

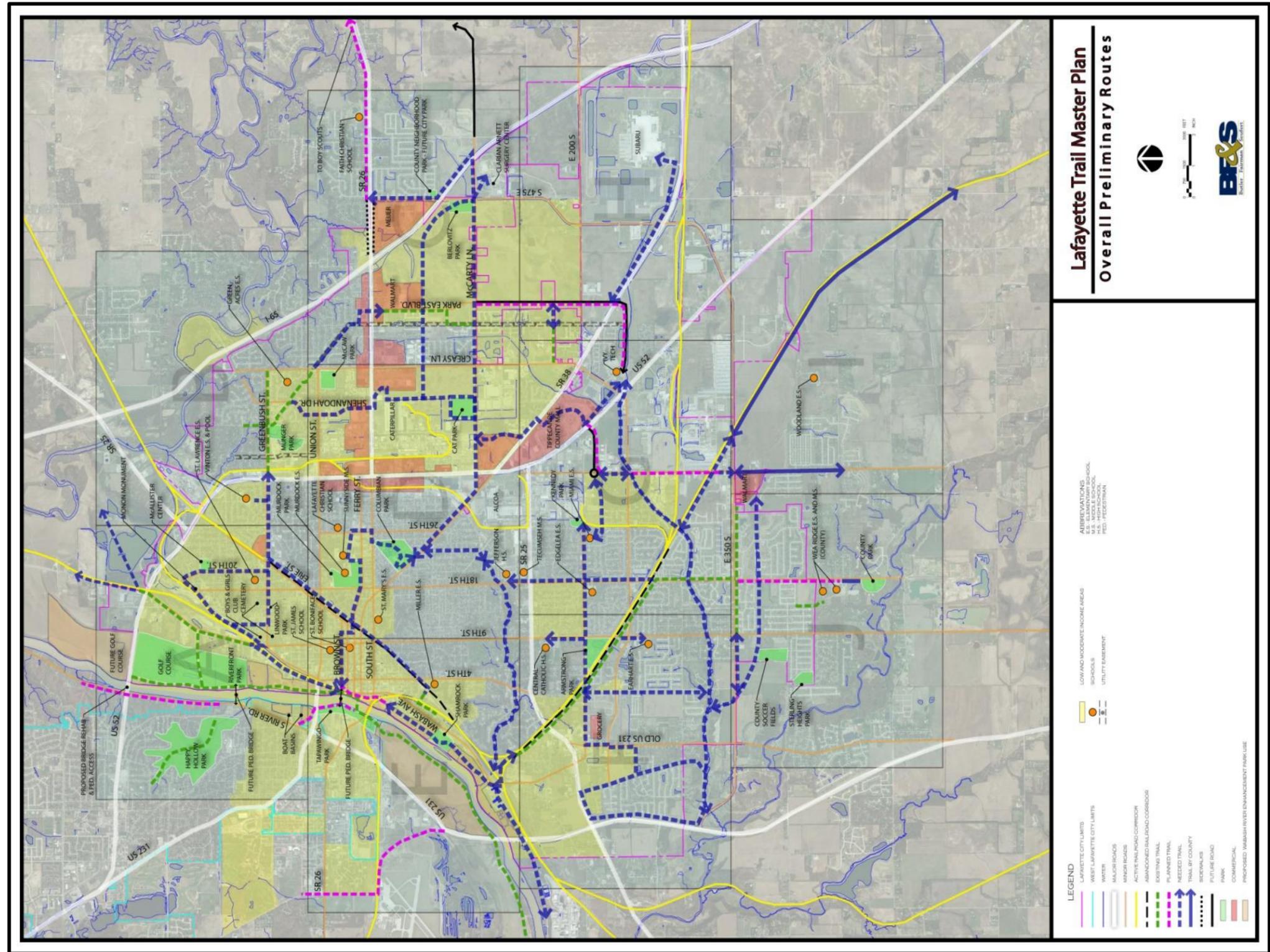
Lafayette's 331.5 miles of sidewalks form an extensive network with few neighborhoods not served. However, sidewalks are noticeably absent along some major roads including Sagamore Parkway (US 52), South Street (SR 26) east of Sagamore Parkway, SR 25/SR 38 and around the Tippecanoe Mall.

There are several active road construction projects that include trails, sidepaths and/or sidewalks. The Concord Road/Maple Point Drive project will have a trail on one side and a sidewalk on the other, as will South 18<sup>th</sup> Street between Veterans Memorial Parkway South and Wea Ridge Middle School. Widening of the next section of Veterans Memorial Parkway will include a trail along the south side of the road. The city will reconstruct Sagamore Parkway, Old Romney Road, and Twyckenham Boulevard to include trails/sidewalks. Federal Transportation Enhancement funds will be used to construct a sidewalk along a portion of SR 25/38. The city will be improving ADA access between Riehle Plaza and the Myers Pedestrian Bridge. These improvements also benefit bicyclists.

Lafayette is finalizing a Master Greenway and Trail Plan **Figure 8** that builds on its existing trail system. The City's goal is to have every citizen within ½ mile of a trail. The trails are designed to connect schools, major parks and neighborhoods with safer separated facilities for all ages and abilities.

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Figure 8, Preliminary Lafayette Master Greenway and Trail Plan



Source: City of Lafayette

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### 3. Tippecanoe County

The County has a long history of trail construction beginning with the Wabash Heritage Trail. It extends north to the Tippecanoe Battlefield National Historic Monuments and south to Fort Ouiatenon. Most of the trail is soft surface, but all of the urban sections and a newly constructed section near Fort Ouiatenon are hard surface. Other trails throughout the county are mostly soft surface.

River Road is officially designated as a State Scenic Byway and attractive to bicyclists. The county has been reconstructing the road for over a decade. The road now includes wider shoulders and a portion of the Wabash Heritage Trail starting at CR 700W.

Local development codes do not require sidewalks outside the urban area so sidewalks are not as prevalent as either city. Since 1981 sidewalks have been required in all new subdivisions. Several major roads do have them, including McCarty Lane, CR 550E, CR 50S and a portion of Old US 231 near McCutcheon High School. Sidewalks are also present in all of the incorporated and non-incorporated towns in the county

The county is currently working on several road projects that include sidewalks and/or trails. McCarty Lane east of Veterans Memorial Parkway is currently under construction and includes a sidewalk on one side. Construction on Cumberland Extension will include a trail on one side and a sidewalk on the other. Several planned road projects will have trails and sidewalks including a portion of Klondike, Lindberg, the Cherry Lane extension and Yeager Road north of the City limits.

### 4. The State of Indiana

Both the INDOT and the IDRN have built non-vehicular facilities in our community. Several trails have been constructed in Prophetstown State Park by IDNR. There are currently 4.15 miles of hiking trails as well as 2.25 miles of hard surfaced pedestrian and bike trails. IDNR is designing an additional 3.1 miles of bike trails to connect to the gatehouse and to Pretty Prairie Road.

INDOT has constructed some bicycle and pedestrian facilities but several state highways do not have facilities for pedestrians and bicyclists. Some of the recent improvements on SR 26 include sidewalks on both sides and through the interchange with I-65. The US 231 Relocation includes several types of bicycle and pedestrian facilities. There are bike lanes on South River Road and the section crossing the Wabash River is signed as a bike route. Sidewalks were also constructed from River Road to Robinson. The new US 231 will have a trail on both sides between SR 26 and US 52. While no pedestrian and bicycle facilities were planned for the section of US 231 from SR 26 south the community is committed to providing some type of facility to meet the need. Recent improvements on SR 25 in the Elston area have included sidewalks and more are planned. Design plans are currently underway for sidewalks between Old Romney Road and Old US 231. In the near term the state will widen the shoulder.

In 1997, APC adopted the *Tippecanoe County Bicycle and Pedestrian Plan* that provided broad base-line policies for bicycle and pedestrian planning. APC has subsequently continued to advocate for bicycle and pedestrian facilities and assisted local jurisdictions in obtaining federal funding for facilities. A corridor analysis of US 52 from the Wabash River to CR 500W was conducted in 2010 in cooperation with West Lafayette, Tippecanoe County and INDOT. It evaluated US 52 and a wide area on both sides. In addition to recommending road improvement is also proposed many pedestrian and bicycle projects not only adjacent to the road but on new right-of-way throughout the study area.

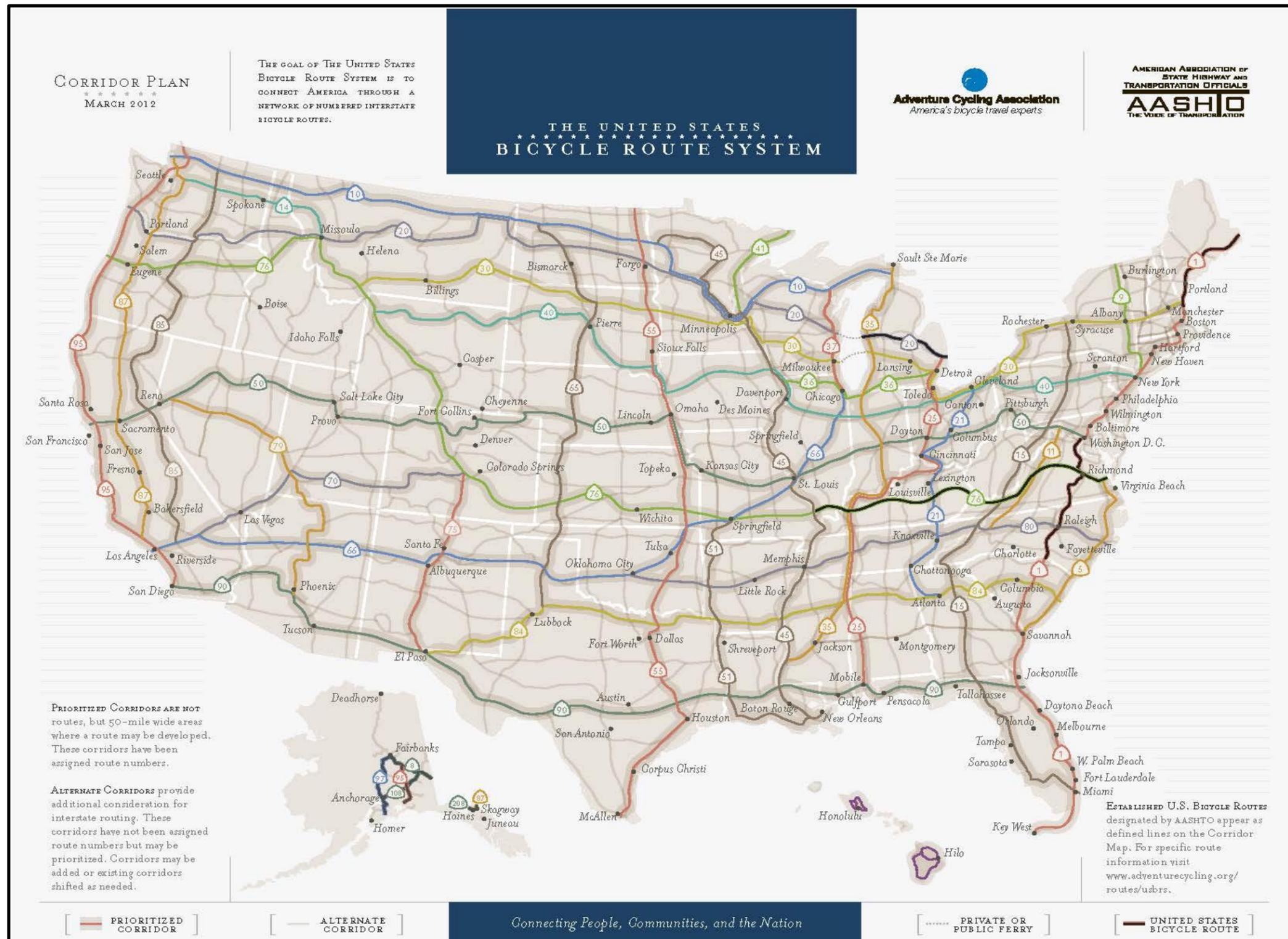
### 5. Inter-city Trail Development

The Farm Heritage Trail is a proposed multi-use trail along the former Big Four rail corridor between Lafayette and Zionsville. A 1½ mile portion of the trail is already constructed from Thorntown to the Sugar Creek Bridge. It extends even further north as a soft surface trail.

The American Association of State Highway and Transportation Officials (AASHTO) in conjunction with Adventure Cycling, has adopted a US Bicycle Route System. Similar to the interstate, these designated routes create a nationwide system of routes for bicyclists. The first routes were designated in 1976 as part of the Bicentennial celebration. More than 40 States are working on the system which will use trails whenever possible but primarily low volume secondary roads (**Figure 9**). Three routes are proposed for Indiana; the Lafayette community is in proximity to two of them: US Bike Route 35 (**Figure 10**), is a north-

south route from Louisville to southwestern Michigan, and USBR 50, an east-west route through the middle of the state.

Figure 9, National US Bike Route System



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Figure 10, US Bike Route 35 – Conceptual Route



Source: Adventure Cycling

## B. Transit

The Greater Lafayette Public Transportation Corporation, known as CityBus, provides public transit services throughout Lafayette, West Lafayette and to the urban area. Founded in 1971, the system offers a mix of transit options, including fixed route service, paratransit service, and a special free-fare trolley service between the downtowns of Lafayette and West Lafayette and the Purdue University campus.

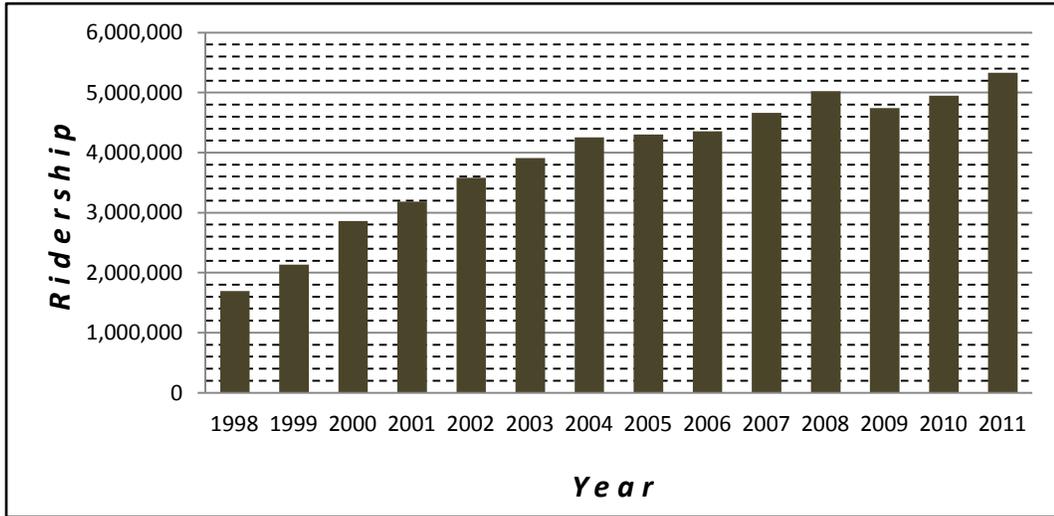
CityBus became a Public Transportation Corporation (PTC) in July of 1971. As a PTC, it is officially recognized as a division of local government and has the authority to collect taxes. It is governed by a board of directors who are appointed by the mayors and city councils of Lafayette and West Lafayette and has the authority to purchase and own real property.

### 1. Current Profile

CityBus' service area was established when it became a PTC. The resolution spells out the service area which includes both cities and a portion of the adjacent urban area. State law defined the urban area as two miles beyond the city boundaries based on the population of both cities. The service area encompasses approximately 74 square miles (Figure 11).



**Figure 12, Ridership, 1998 to 2011**



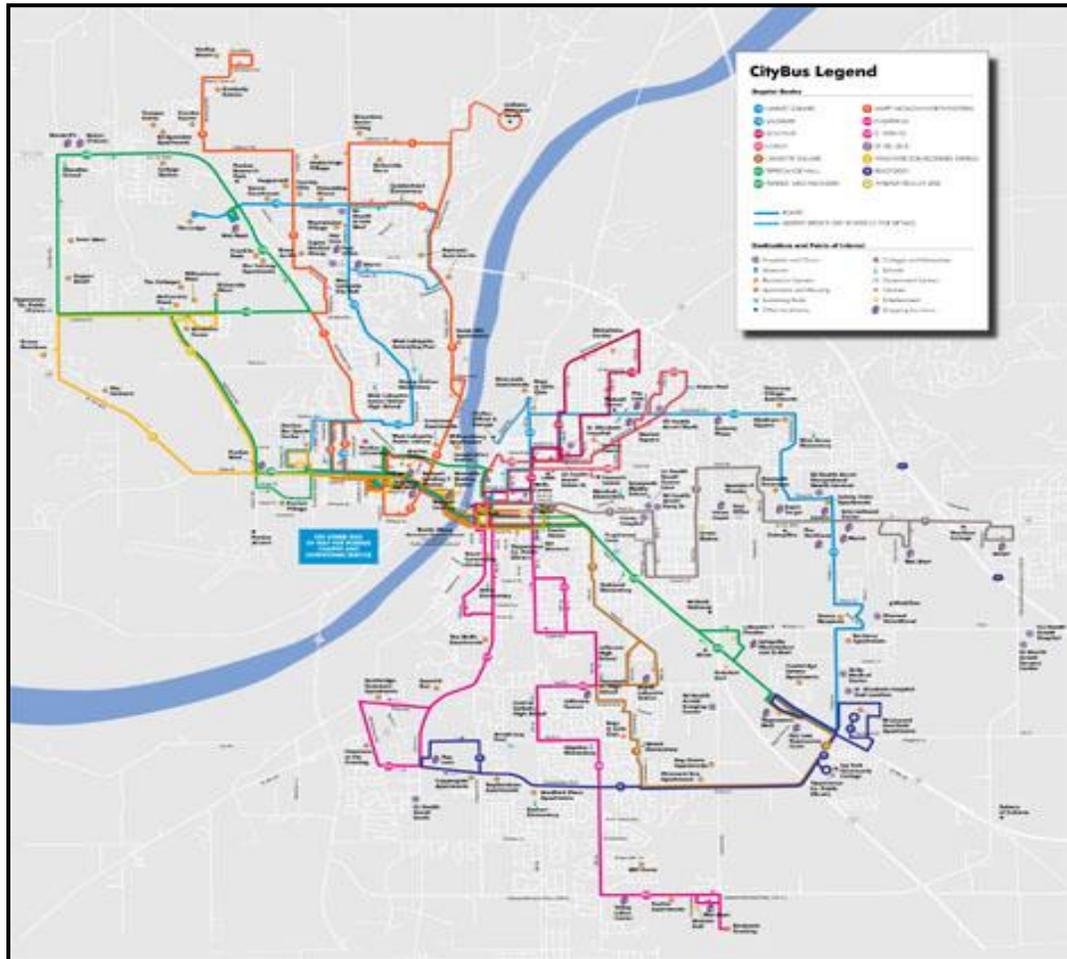
Source: CityBus

**a. Fixed Route Service**

CityBus operates 14 regular fixed routes including the Wabash Trolley Line. Based on a radial structure, nearly all of the routes come and go from the hub at Riehle Plaza in downtown Lafayette. Nine routes serve Lafayette exclusively, five routes serve West Lafayette and the Wabash Trolley serves both cities (**Figure 13**). Ridership on the fixed routes has also grown each year with the exception of 2009 because of the recession.

CityBus has created several routes that do not connect with Riehle Plaza. In Lafayette, Route 9 operates across town along the southern boundary of the service area. Ready2Go shuttles persons from residential subdivisions to shopping nodes at either end of the route. In West Lafayette the Happy Hollow/Northwestern and Willowbrook-Klondike Express routes connect to the Purdue campus. Additionally, seven Campus Loop routes exclusively serve the Purdue campus during the day.

Figure 13, Fixed Bus Routes

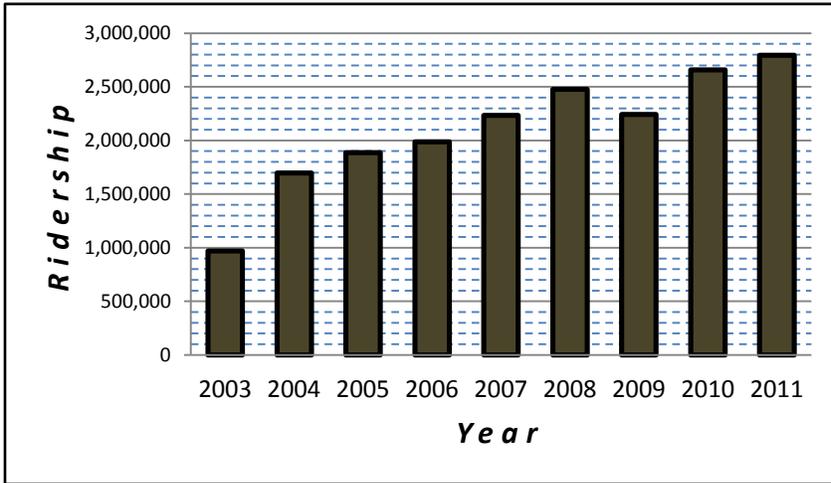


Source: CityBus

Regular routes typically operate with 30 minutes between buses on weekdays and 30-60 minutes on weekends. Buses run from as early as 6:40 in the morning through 7:40 in the evening. On several routes (Market Square, SR 26 and Tippecanoe Mall) service continues to 12:30 am. Limited service is also provided on Sunday.

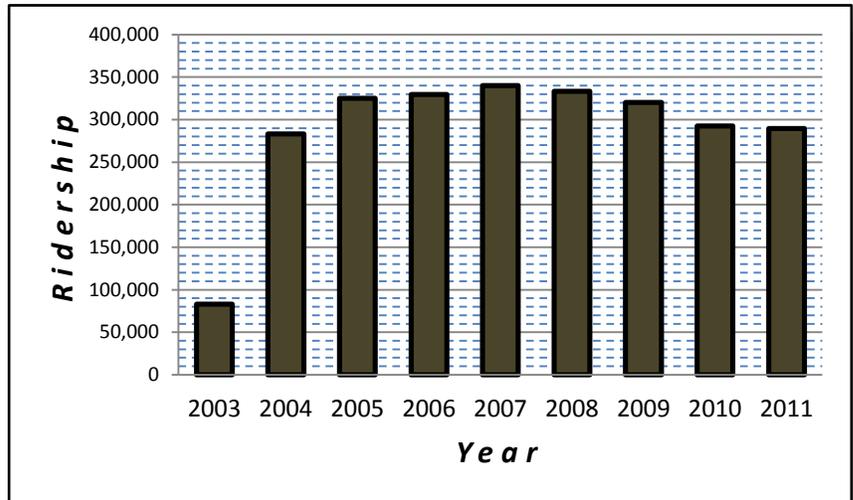
The Wabash Trolley Line links downtown Lafayette, West Lafayette and Purdue University using streetcar replicas. It is free to anyone and offers service to destinations such as Purdue, hotels, restaurants, shops, cultural, arts and entertainment venues. Service is frequent with the ability to catch a bus every 12 to 15 minutes (**Figures 14 and 15**).

**Figure 14, Fixed Route Ridership, 2003-2011**



Source: CityBus

**Figure 15, Wabash Trolley Ridership, 2003-2011**

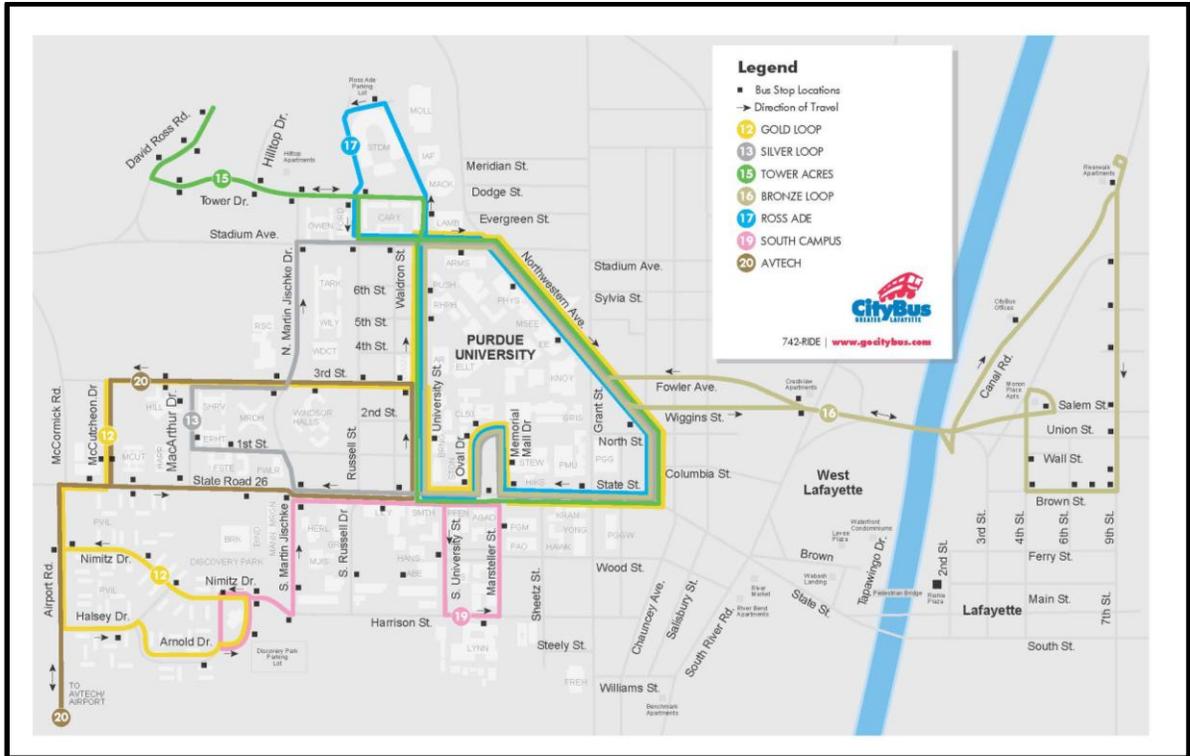


Source: CityBus

CityBus' Purdue service includes seven routes (**Figure 16**) during the day. The Purdue Campus Loops operate on 5-30 minute frequencies and are fare free for Purdue students, faculty and staff with Purdue identification. Evening and late night service is provided on several routes. Campus Loop routes operate during both fall and spring semesters on days when classes are in session, and are well utilized (**Figure 17**).

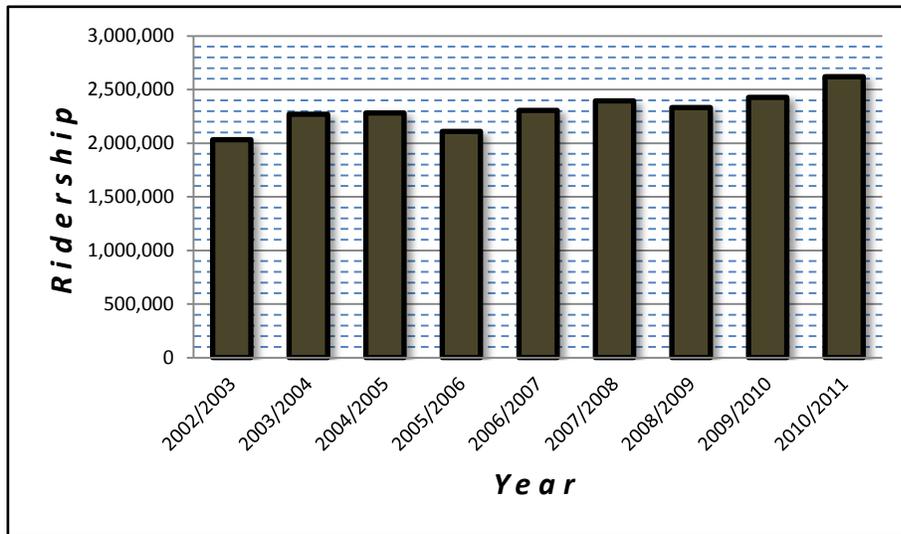
CityBus operates an express service between two apartment complexes northwest of West Lafayette, Campus Suites and College Station. Designated stops are located on the Purdue campus. Operating costs are funded by the owners of both apartment complexes. The service remains open to the general public, but residents of both complexes are entitled to ride free. The service operates on 30-minute schedules from 7:10 am to 5:50 pm during the fall and spring semesters on days when classes are in session.

**Figure 16, Campus Loop Routes**



Source: CityBus

**Figure 17, Campus Loop Routes Ridership, 2003-2011**

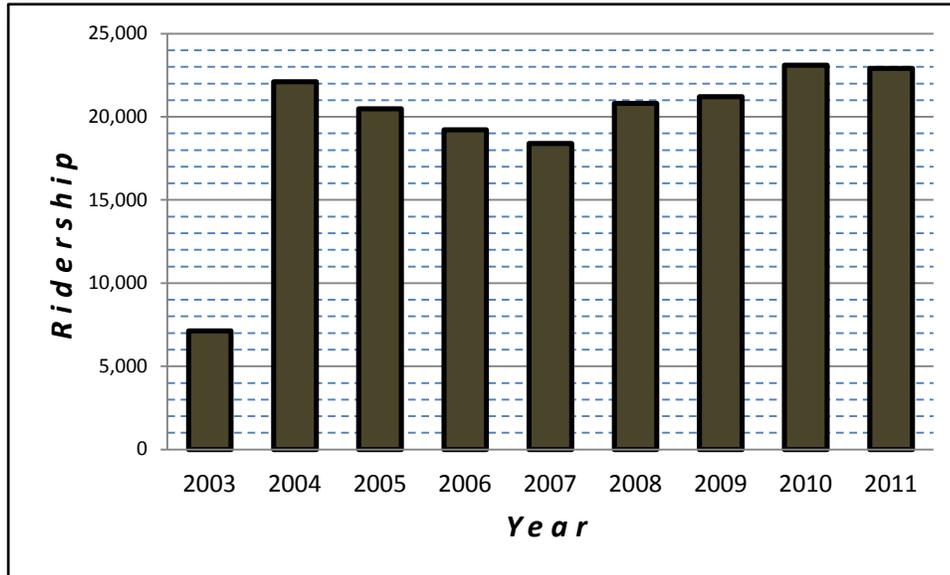


Source: CityBus

**b. ACCESS Service**

ACCESS is the ADA paratransit service for CityBus. ACCESS provides curb-to-curb paratransit service to origins and destinations within 3/4 mile of CityBus fixed routes. ACCESS operates between the hours of 6:00 am and 10:15 pm Monday through Saturday, and 9:30 am to 7:00 pm on Sundays; however, service hours vary by location because service hours mirror those of the fixed route system. Ridership has been steady since its first full year of service (Figure 18).

**Figure 18, ACCESS Ridership, 2003-2011**



Source: CityBus

**c. Fares**

CityBus has set fares to meet the needs of riders. It offers a variety of different payment methods depending on the riders and how frequently they ride. Younger and older riders are offered special discounts. Persons who have a qualifying disability also benefit from discounted fare. Tokens and passes are available for more frequent rider. CityBus strives to keep its fares low and affordable.

The cost to ride a bus is \$1.00 with free transfer to another bus. Children through the sixth grade ride free. Youth who attend either middle school or high school can also ride free by using a youth bus pass. There is a one dollar fee for the special youth pass. Fares are also reduced to 50 cents for elderly and disabled riders.

More frequent riders have a choice of purchasing tokens or a pass. Tokens reduce the ride cost to 75 cents. The monthly pass allows unlimited travel anywhere in the community and costs \$28. A daily pass is offered to those riders who are visiting the community for only a short period of time and cost \$2.

Fare is charged for those who use the ACCESS service. For a single one-way trip, the cost is \$2. An ACCESS ticket is also available and gives the riders ten trips for the cost of \$20. Riders who are pre-certified and eligible to ride ACCESS can also ride any of the regular routes for free.

CityBus has partnered with Purdue University and Ivy Tech to allow their staff, students and faculty to ride free with valid school identification. The service is paid by both schools and allows use of all CityBus services.

#### **d. Facilities & Equipment**

CityBus is one of the largest transit systems in the State and owns significant capital resources. The most visible are the buses that travel throughout the community every day. The other major investments are in physical facilities at four locations. These include the office and maintenance buildings, the downtown transfer center and two childcare facilities.

The office, storage and maintenance facilities are located on Canal Road. Recent additions to the main facilities are three 100Kw wind turbines. Highly visible, they generate electricity to supplement power to both buildings. The turbines were added through a special Federal TIGGER grant.

The most visible facility is the transfer center at Riehle Plaza. This is the hub where most routes begin and end. It allows riders to transfer from one bus to another and travel to most locations in the community. Riehle Plaza is the community's multimodal station accommodating both Greyhound and Amtrak service.

CityBus will be relocating its transfer station to just north of its current location for two major reasons. First, CityBus has grown and is now out of room. The second is to make the system easier to use for those with disabilities. At Riehle Plaza, buses do not have specific parking spaces. When buses pull into the station they line up bumper to bumper in order of arrival. This makes it difficult for persons with certain disabilities to find the bus they need. Additionally, it is not possible for buses to leave on time if the bus in front has to wait for also transfer riders.

CityBus also owns two childcare centers. One is located within a short walk of the downtown transfer center. The other is located at Wabash Landing in West Lafayette. Both are operated by Tippecanoe County Childcare Inc. These facilities enable riders to have a safe and convenient place for their children while at work.

CityBus has a fleet of 73 buses ranging 35 to 60 feet. The larger ones are articulated with an extension at the rear of the bus. These supersize buses are able to carry a large number of passengers. There are currently ten in the fleet and operate on the Purdue Campus. All of the buses in the fleet are low floor and handicapped accessible. All have bicycle storage racks on the front.

CityBus has campaigned to make its fleet greener and more fuel-efficient. Over the past six years, CityBus has purchased hybrid buses and now has a fleet of 20. These buses emit fewer pollutants and also get better miles per gallon. By getting better mileage, less diesel fuel is consumed and operating expenses are lowered.

Not all of the vehicles are large buses. CityBus operates two buses that resemble trolleys. Both trolleys are used exclusively on the downtown trolley route. Other notable vehicles are six ACCESS buses used to provide specialized service to qualifying disabled persons.

### **2. Performance**

#### **a. Expenses and Budget**

CityBus' expense budget for 2012 is \$10.5 million. The largest expense is for its 130 employees. The second largest expense is for fuel. CityBus has budgeted over \$1.4 million for fuel, just over thirteen percent of the total budget. Remaining costs include repair, parts, insurance, utility cost, and maintenance.

CityBus receives its funding from multiple sources. Approximately 30% of revenue comes from fares, passes and tokens. Other local revenue sources include property tax revenue and funds from the County Option Income Tax and the Economic Development Income Tax. CityBus also receives funding from the Indiana Public Mass Transportation Fund which accounts for approximately 30% of revenue. Additionally CityBus receives funds from the federal government that come from the National Mass Transit Account, part of the Federal Highway Trust Fund. These funds account for approximately 22% of total revenue.

#### **b. Transit System Performance Comparison**

In INDOT's Public Transit Annual Report for 2010 CityBus is categorized as a large fixed route system, as are Bloomington, Evansville, Fort Wayne, Gary, Indianapolis, Muncie and South Bend. The following performance measures help understand the strength and efficiency of CityBus and provide a perspective on how it compares to other transit systems in Indiana.

1) Ridership 2010

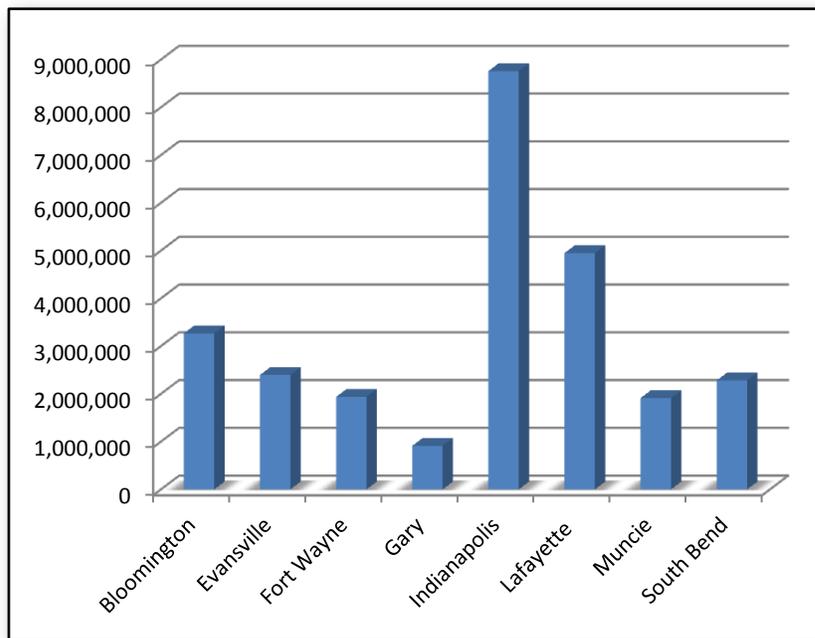
The primary performance measure is ridership. CityBus carried 4,946,242 persons in 2010 (**Figure 19**). In 2011, ridership surpassed five million (5,327,744). These large ridership numbers mean that citizens in our community use transit extensively.

CityBus carries significantly more riders than any other major transit system in the state except Indianapolis. Ridership in our community is significantly more than the second and third most populated cities (Fort Wayne and South Bend). Even though the Indianapolis transit system carried nearly twice as many people, its service area population is over six times as large as that of CityBus (791,926 people compared to 123,046 people).

2) Operating Expenses per Passenger Trip

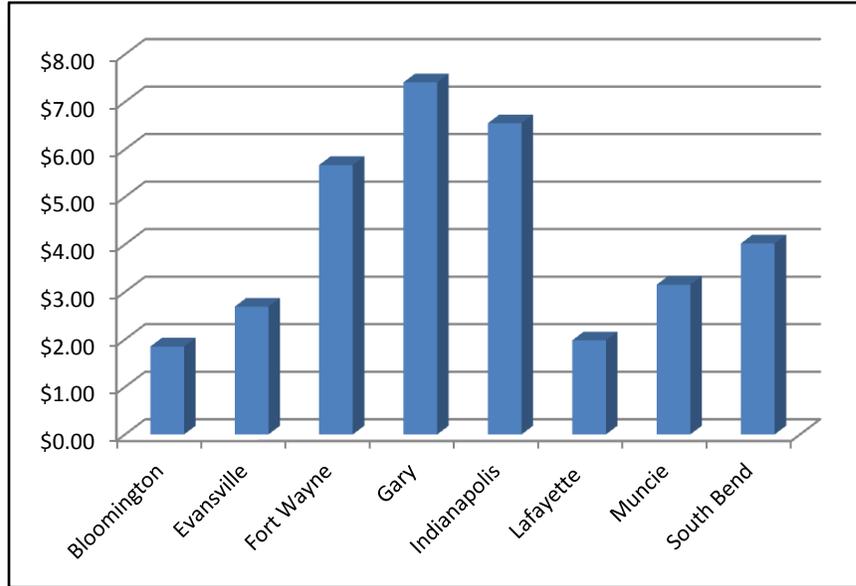
Another good indicator of system efficiency is how much it costs to transport a passenger. CityBus' operating expense per passenger trip is one of the lowest in the state for large transit systems (**Figure 20**). In 2010, the cost per passenger trip on CityBus was \$1.98. This is half the state's average for all of the large fixed route systems and less than one-third that of Gary and Indianapolis.

**Figure 19, 2010 Ridership by Transit System in Indiana**



Source: INDOT, Public Transit Annual Report for 2010

**Figure 20, 2010 Operating Expense per Passenger Trip by Transit System in Indiana**

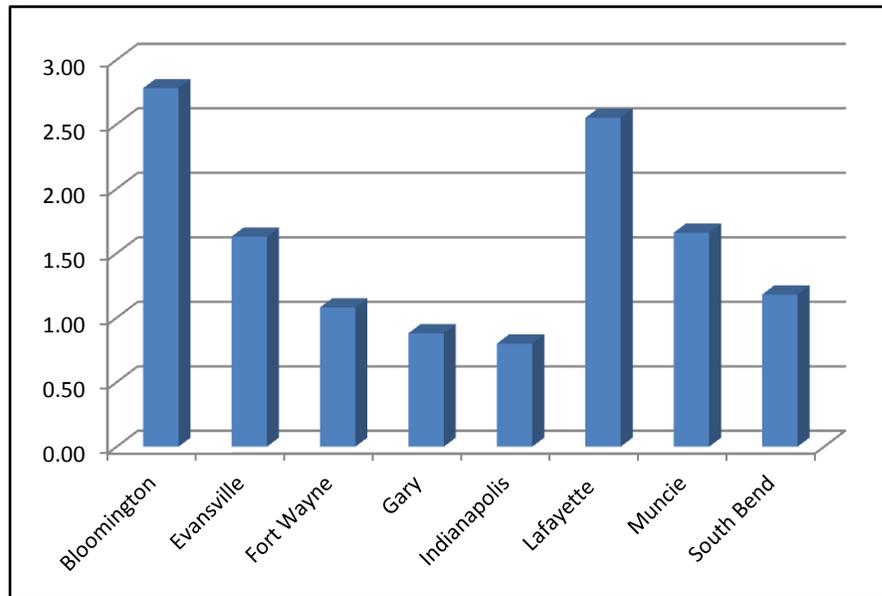


**Source: INDOT, Public Transit Annual Report for 2010**

3) Passenger Trips per Total Vehicle Miles

A good indicator of how efficiently a transit system operates is the comparison of the number of trips people take to the number of miles driven. CityBus has one of the best ratios of passenger trips per total vehicle miles traveled in the state at 2.55 (Figure 21). The Bloomington transit system is slightly higher but other Indiana cities perform only half as well.

**Figure 21, 2010 Passenger Trips per Total Vehicle Miles by Transit System in Indiana**



**Source: INDOT, Public Transit Annual Report for 2010**

4) Operating Expenses per Total Vehicle Mile

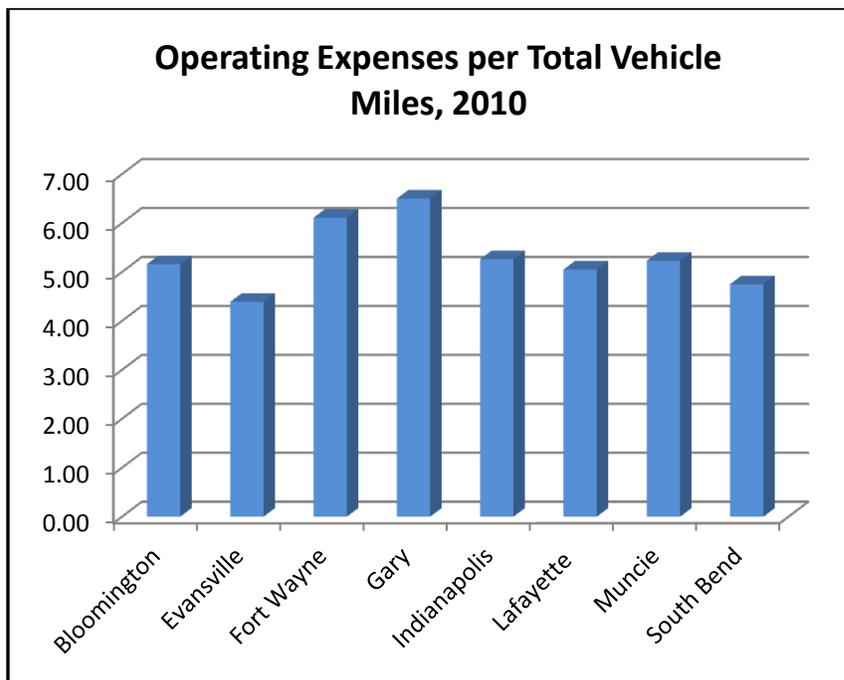
In the transit industry a good measure of cost performance is cost per mile of service. **Figure 22** shows the operating expenses per total vehicle miles for all of the large transit systems in the state. In 2010, it cost CityBus \$5.05 to operate a bus per mile, third in the state and better than the state average of \$5.31.

5) Fare Recovery Ratio

CityBus ranks as one of the best in Indiana in terms of recovering operating cost through passenger fares (**Figure 23**). In 2010, CityBus recovered 23% of its operating costs from passenger fare revenues; only Bloomington had better fare recovery. All other transit systems recovered less with a group average of 16%.

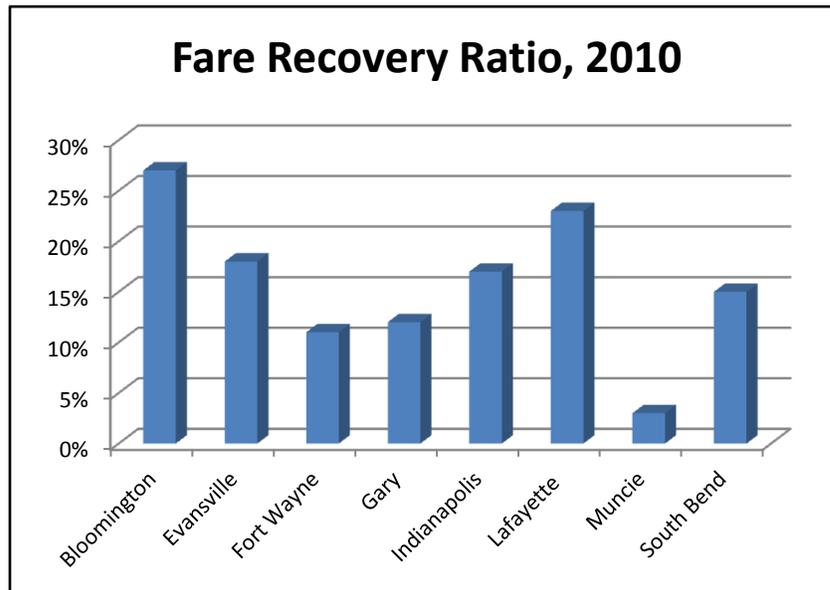
All of these measures show that CityBus is one of the top performing transit systems in the state. Operating costs are kept low and ridership is high.

**Figure 22, 2010 Operating Expenses per Total Vehicle by Transit System in Indiana**



Source: INDOT, Public Transit Annual Report for 2010

**Figure 23, 2010 Fare Recovery Ratio by Transit System in Indiana**



**Source: INDOT, Public Transit Annual Report for 2010**

### **3. Transit Planning**

Transit planning is very different from developing and implementing road projects. Transit projects can usually be implemented relatively quickly compared to the time it takes to construct a road. It can take a year to procure buses, but it can take several years to design and construct a new road.

Planning, development and implementation at CityBus are done at two levels. Short term planning like route changes and some capital investments are generally implemented in less than a year. For some projects it can be less than two months. Longer range planning looks at the next five years and considers longer term, larger capital projects that require major changes to CityBus infrastructure. Using this dual planning model, CityBus has been able to meet the challenges and needs of the citizens of this community.

Short range planning is continually performed at CityBus. Staff constantly monitors ridership and other performance measures determine how efficiently the system operates. Adjustments to routes are made where appropriate to better serve the community. Fuel prices are also closely monitored. Capital investments to the office, garage, transfer station and childcare facilities are made to keep them up-to-date and well maintained. Bus maintenance is constantly monitored to ensure no ongoing problems with specific parts or buses. In order to make all necessary immediate and short term decisions, staff monitor system performance on a daily basis.

Larger projects and policies that require more time to develop and implement are addressed in CityBus' Strategic Plan. Issues addressed in the Strategic Plan include potential major route restructuring, new facility construction, alternative fuels and fleet replacement. Projects included in the plan often require funding above what is normally received on an annually basis.

The largest capital projects that CityBus implements do not take more than five years. Looking beyond five years is challenging because of future funding uncertainty. Long-term changes in the economy and upcoming federal legislation make it difficult to plan beyond the short range future.

## D. Air Services

The Purdue University Airport is a general aviation airport encompassing 500 acres on the south side of the campus in West Lafayette. Passenger service is not currently available but there are two commercial flight services and the airport is home to the Purdue University School of Aviation. With over 100,000 annual airport operations it is one of the busiest airports in the state. Its two runways are supported by a system of parallel taxiways and apron area. There is one passenger terminal building, several hangars and academic buildings for the Aviation Technology program.

### Buildings

- One passenger terminal building
- Five hangars and two small buildings used for academic activities
- Two hangars used for commercial activities
- Seven "T" hangars used for private and corporate aircraft storage (58 units)



### Activity

- 100,000 aircraft operations annually
- Second-busiest airport in Indiana

### Runways

- 10/28 is 6600 feet long and 150 feet wide
- 5/23 is 4230 feet long and 100 feet wide

### Lighting

- 10/28 - High intensity with approach aids, REIL 28, VASI 28, PAPI 10
- 5/23 - Medium intensity with approach aids, REIL 5/23, VASI 23, PAPI 5
- 10/28 - Medium approach lighting system (MALSR)

### Instrument Approaches

- ILS
- VOR
- NDB
- RNAV
- GPS



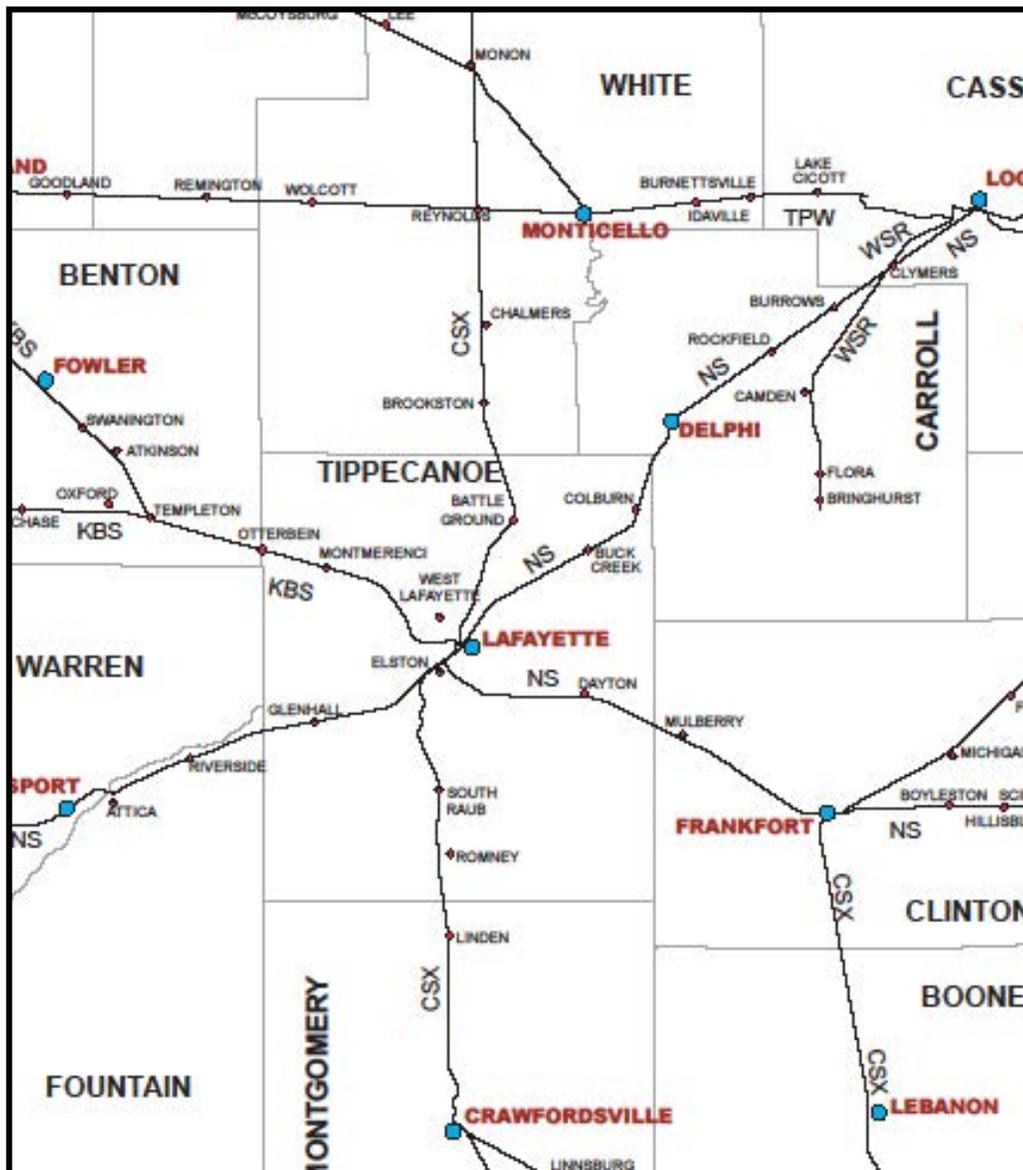
The airport has a systematic capital improvement program to guide development and operations. Planned projects include a runway extension, an additional parallel taxiway and apron improvement. The Airport Master Plan is being updated and should be completed in 2013. Some of the issues that are being addressed in the update include preserving the airport through protective land purchases, mitigating potential noise issues, increasing security measures and minimizing the airport's environmental footprint.

### E. Rail Service

This community has a long history with railroads; most recently developing quiet crossings in Lafayette and eliminating at-grade crossings as part of the Lafayette Railroad Relocation Project and on US 52. Three railroad companies operate in Tippecanoe County: two Class I rail carriers and one short-line railroad (**Figure 24**). The Kankakee, Beaverville, and Southern is a well established short haul operator, Norfolk Southern operates two main line routes, and CSX operates one core line.

According to the Federal Rail Administration there are currently 68 public crossings and 38 private crossings in Tippecanoe County (**Table 15 and 16**). There are few railroad crashes (**Table 17**), averaging 2.5 per year.

**Figure 24, Rail Lines in Indiana**



**Table 5, Public At-Grade Railroad Crossings by Local Jurisdiction**

City	Total	Type of Highway Warning					Whistle Ban
		Cross bucks	Stop signs	Flashing lights	Gates	Quad Gates	
Battle Ground - In	2			1	1		
Battle Ground - Near	2			1	1		
Buck Creek- In	2			1	1		
Buck Creek - Near	6		3	1	2		
Dayton- In	1			1			
Dayton - Near	5		4	1			
Lafayette - In	18	5	1	9	2	1	
Lafayette - Near	11	2	1	3	5		
Linden - Near	1		1				
Montmorenci - In	1			1			
Montmorenci - Near	2		2				
Romney - Near	5		2	2	1		
West Lafayette - Near	5		2	1	2		
West Point - Near	7		3		4		
<b>Total</b>	<b>68</b>	<b>7</b>	<b>19</b>	<b>22</b>	<b>19</b>	<b>1</b>	

**Table 6, Public At-Grade Railroad Crossings by Railroad**

Railroad	Total	Type of Highway Warning					Whistle Ban
		Cross bucks	Stop signs	Flashing lights	Gates	Quad Gates	
CSX Transportation [CSX ]	19	4	3	8	4		
Kankakee, Beaverville & Southern	8		4	2	2		
Norfolk Southern Corp. [NS ]	41	3	12	12	13	1	
<b>Total</b>	<b>68</b>	<b>7</b>	<b>19</b>	<b>22</b>	<b>19</b>	<b>1</b>	

**Table 7, Number of Train-Vehicle Crashes**

	2006	2007	2008	2009	2010	2011
# of Crashes	3	2	4	2	1	3

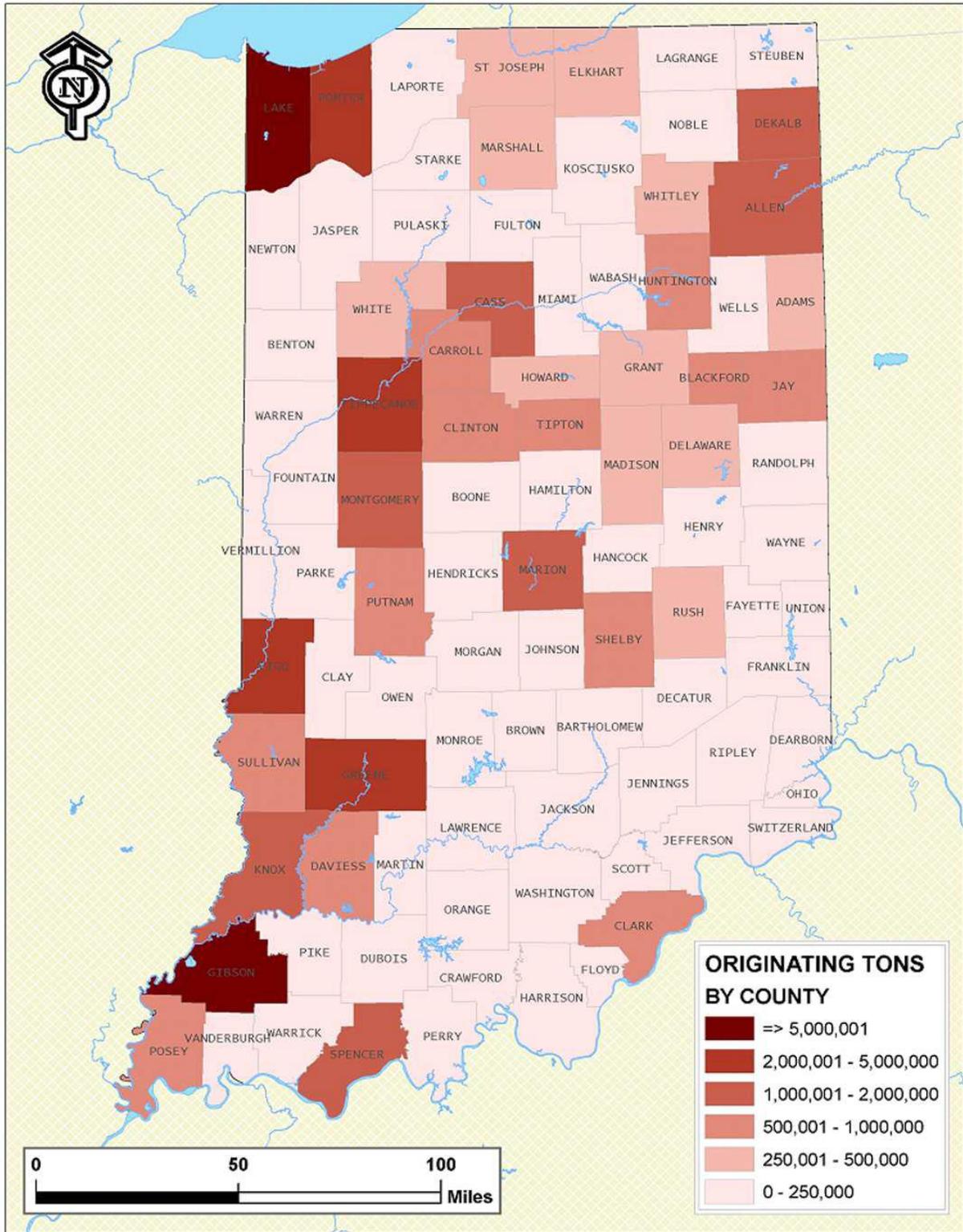
The greater Lafayette area has benefited from daily AMTRAK passenger rail service. Riehle Plaza’s intermodal depot is designated in the *INDOT 2030 Long Range Transportation Plan* as an intermodal facility of statewide significance. There are two regional efforts to enhance passenger rail service that affect this community: The Midwest High Speed Rail Association and the Midwest Regional Rail Initiative. Both will benefit the community and local support needs to continue.

**F. Freight**

Tippecanoe County has benefited from the availability of multiple freight movement choices. The community has good highway and rail networks that strengthen the local economy. The community is served by three railroad companies. The railroads have created significant economic activity in this community. Tippecanoe County is one of the top 5 shipping counties in Indiana based on tonnage (**Figure 25**).

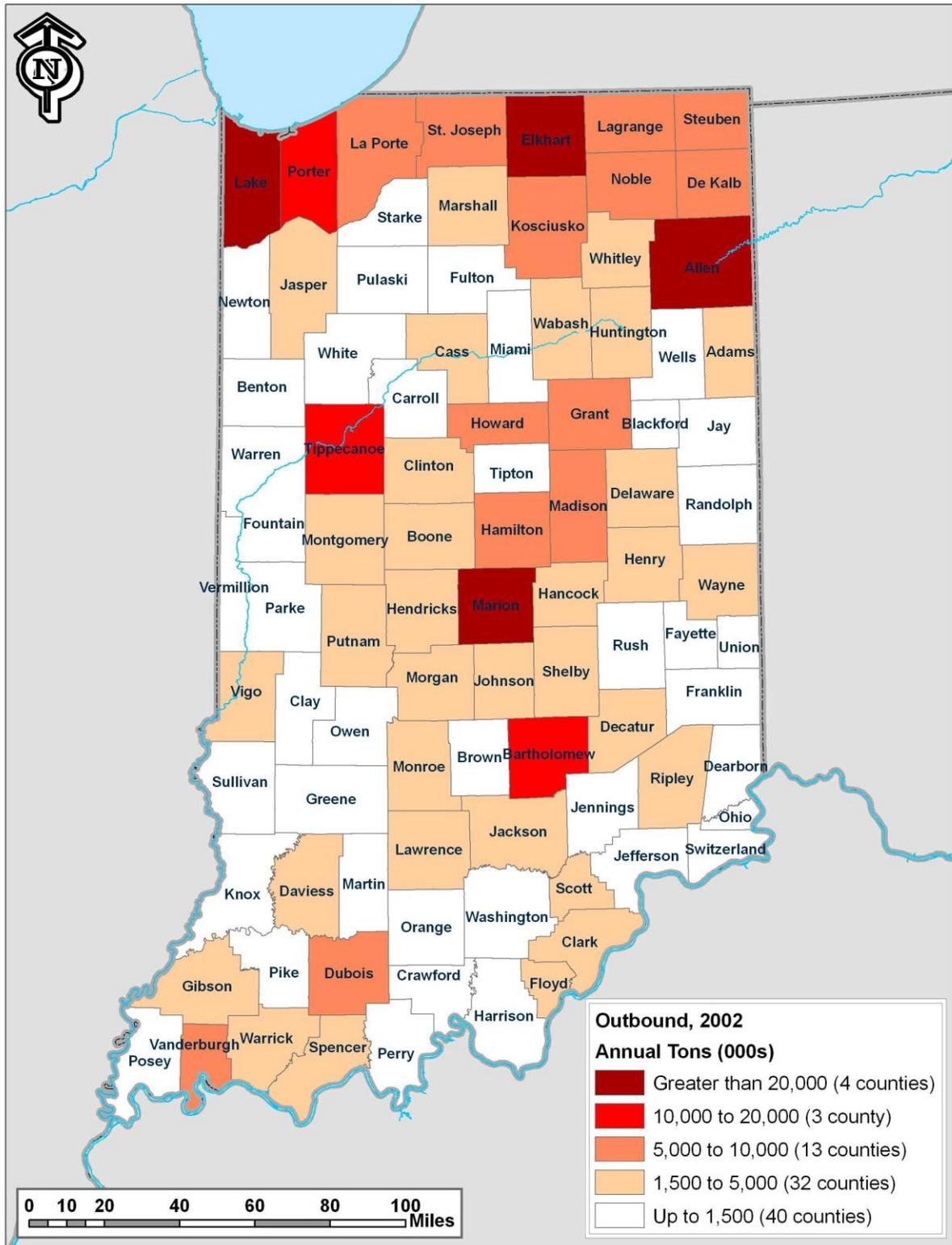
The highway network provides access radiating in all directions from Lafayette. It is comprised of Interstate 65, two U.S. highways (US 52 and 231), five state routes (SR 25, 26, 28, 38, and 43), and other primary and secondary arterials and local roads. Tippecanoe County is also one of Indiana’s top shippers by truck (), and is served by 32 trucking firms (**Figures 26 and 27**).

**Figure 25, Indiana Total Rail Traffic Origins by County**



Source: 2009 Indiana Rail Plan

Figure 26, Indiana Truck Commodity Flow Origins

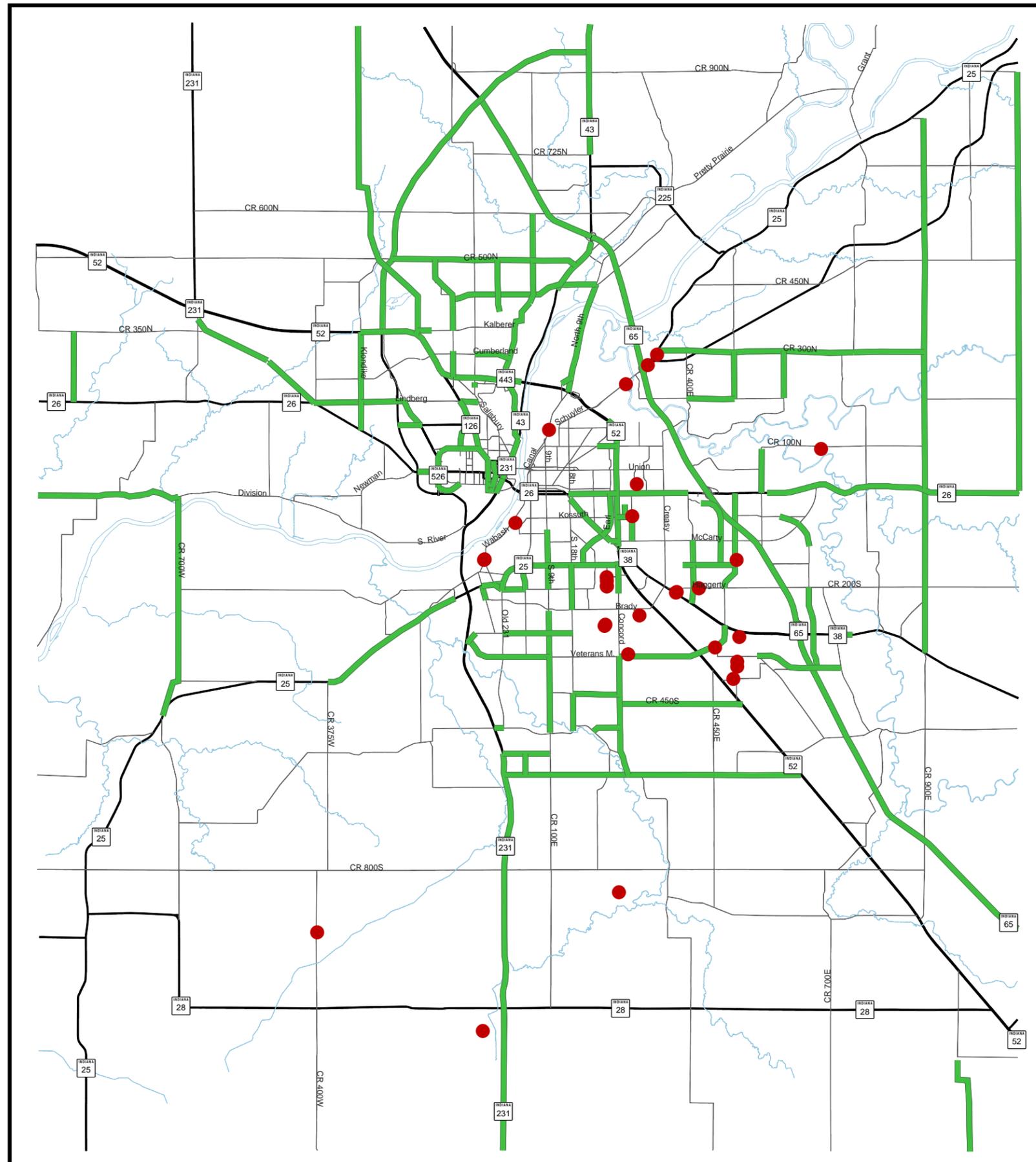


Source: Indiana Multimodal Freight and Mobility Plan

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Figure 27

# Location of Trucking and Hauling Companies



Legend:  
— Road Improvements  
● Company Locations

Scale: 0 1.5 3 4.5 Miles

Prepared by the Area Plan Commission of Tippecanoe County, May 25, 2010

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### G. Intercity Transit

Three intercity transit companies provide regularly scheduled service to the community. They include one national transit provider, Greyhound and two shuttle providers, Star America and Lafayette Limo. Greyhound serves Lafayette between Indianapolis and Chicago, with four buses per day to Chicago and two to Indianapolis. Annual ridership has increased in the last three years with approximately 8,000 people boarding and 7,000 passengers getting off. Star America is a shuttle service offering 18 daily trips to and from the Indianapolis airport. Lafayette Limo also offers Indianapolis airport shuttle service with ten trips daily .

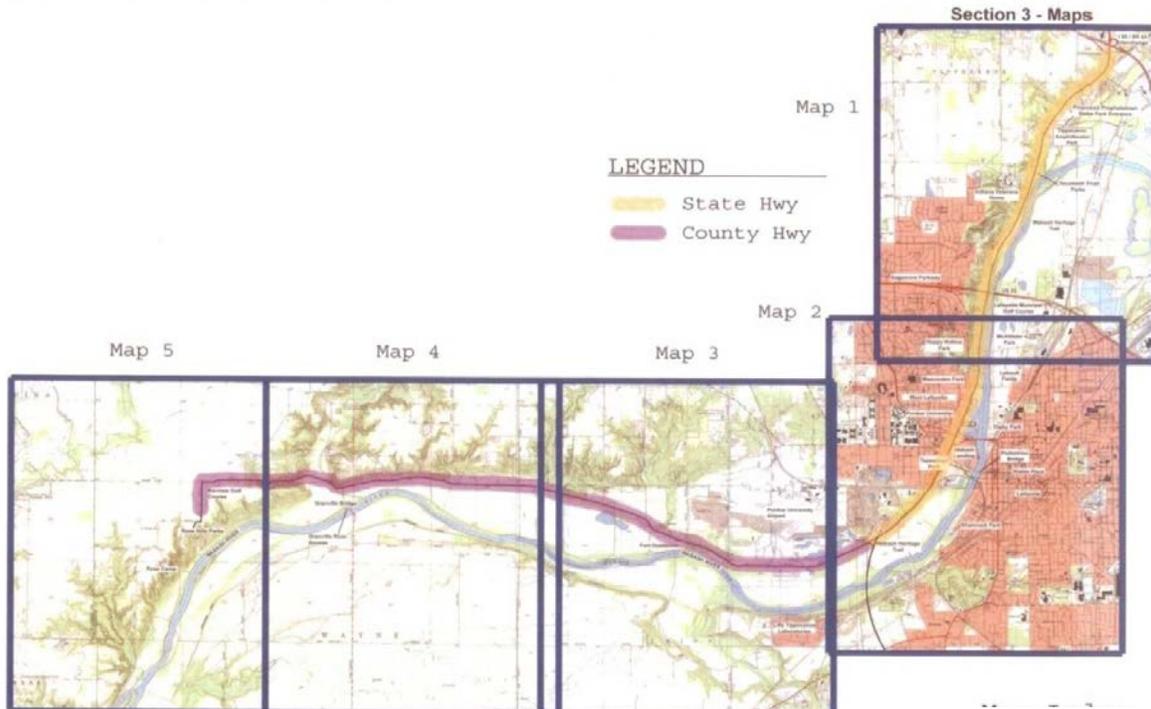
### H. Wabash River Enhancement Corporation

The Wabash River Enhancement Corporation (WREC) is a multi-jurisdictional partnership to improve the Greater Lafayette Region and the Wabash River corridor in a sustainable manner. It was formed by Lafayette, West Lafayette, Tippecanoe County and Purdue University to enhance the quality of life in the Wabash River corridor. The Corporation is creating a comprehensive corridor visions and master plan for the Tippecanoe county section of the Wabash River. Initial programming was supported by a North Central Health Services grant. A Corridor Master Plan was completed in 2010 with both rural and urban Corridor Master Plans, the US Army Corps of Engineers (Corp) completed a Wabash River Reconnaissance and Hydraulic Study in 2011, and IDEM funded a Watershed Management Plan. WREC has initiated land use and acquisition planning including environmental assessments and remediation work, and has acquired six strategic properties along the river.

#### 1. Scenic Byway

Wabash River Enhancement Corporation successfully received Indiana Scenic Byway status for River Road in 2008 (**Figure 28**). The River Road Scenic Byway starts at I-65 at the north and bisects Lafayette and West Lafayette, and ends at Ross Camp, a county park at the south. It received a grant under the National Scenic Byway program for 2011. The grant will help develop an initial Corridor Management Plan for the Byway that will “manage, preserve, and promote the byway’s scenic, natural, recreational, historic, archaeological and cultural intrinsic qualities.” The program has strong local support to preserve and enhance the corridor.

**Figure 28, River Road Scenic Byway**



## I. Safety

APC has a long history of identifying high crash locations in the community by evaluating traffic crash records from local and state police agencies. This information has been used to seek additional funding to address specific locations and assist in project selection. Federal Highway Safety Improvement Program (HSIP) funds have been obtained to address several locations with higher crash histories, including N 9<sup>th</sup> Street at Burnett’s Creek Road, pedestrian safety improvements in Lafayette, West Lafayette and Dayton, signal upgrades on South Street (SR 26) in downtown Lafayette and Sycamore Street traffic calming.

One of the objectives of the 2040MTP is to use crash analysis information to reduce fatalities and injuries. From 2006 to 2010 the number of fatalities in Tippecanoe County has been reduced by over 50% while the number of injuries has been reduced by approximately 20% (**Table 8**). INDOT has a Strategic Highway Safety Plan consistent with the 2040MTP that seeks to reduce traffic crash fatalities and injuries.

**Table 8, Traffic Crashes in Tippecanoe County, 2007-2010**

	All Fatalities	All Injuries	Bicycle Fatalities	Bicycle Injuries	Pedestrian Fatalities	Pedestrian Injuries
2010	10	1379	0	39	3	70
2009	12	1265	0	47	1	58
2008	17	1347	1	47	1	59
2007	22	1451	0	52	5	61

Source: Indiana Criminal Justice Institute and APC

For the first time the 2040MTP includes several components that will enhance safety by including facility recommendations for bicycles and pedestrians, and a Complete Streets Policy to make the community’s rights-of-way safer for all users. This community and the MPO need to continue to committing resources to identify high crash locations and to use that information to seek special funding and allocate funding for local projects.

## J. Operations Management and Maintenance

Our transportation system is a significant asset that needs to be managed and maintained to prolong its life. Without needed maintenance, transportation facilities, equipment and services would quickly deteriorate. Funding both operations and maintenance is necessary to keep the system in optimal condition and to provide the greatest service at the least cost to all users.

Significant amounts of state and local resources are devoted to operation and maintenance activities. Funding comes from state gas taxes through the Local Road and Street (LRS) fund and Motor Vehicle Highway Account (MVH) to our local units of government and INDOT. CityBus supports its operation and maintenance through its fare box revenues and a dedicated local property tax. State support is provided by the Public Mass Transportation Fund (PMTF) and Federal funds are available for operating assistance.

The capital improvements included in the 2040MTP are not limited to those that would add capacity. It also includes projects that reflect the daily operational needs of aging and obsolete facilities.

### 1. Highway Asset Management and Operation

Even a well maintained highway facility has a limited useful life; to preserve and extend that life a systematic program of maintenance is required. This includes monitoring the condition of pavement, filling pot holes and sealing cracks. Roads require resurfacing periodically and often involve grinding off a layer of the road and adding new asphalt. Some concrete streets can also be patched to prolong their useful life. In rural areas, a chip and seal process is used to improve the road surface. Each governmental jurisdiction that owns roadway facilities has a budget for these management and maintenance activities, supported by various funding sources.

Maintenance extends the useful life of facilities for only a limited amount of time. Eventually replacement is needed. The cost of reconstructing a road can include the complete replacement of pavement and is often coupled with minor changes to improve the facility's design. This may include reconstruction with minor widening to increase lane width, drainage improvements with curb and gutter construction and the provision of sidewalks. These are expensive projects that require time and specific planning and development. Often federal funds or special appropriations at the local level are needed for these improvements. **Figure 29** documents the highway improvements been made in the community over the last 20 years. The majority of our arterial road network is shown to be maintained and reconstructed on a regular basis. The map also aids in identify roads that have not received the attention they may need.

Bridges are an important part of our highway infrastructure. Failure of a bridge structure can have catastrophic consequences. INDOT and the Tippecanoe County Highway Department are charged with managing our bridges. Each bridge must be inspected every three years. Inspections include analysis of the support structure, spans and surface. When necessary, bridges are painted, rehabilitated or replaced according to conditions found during inspections.

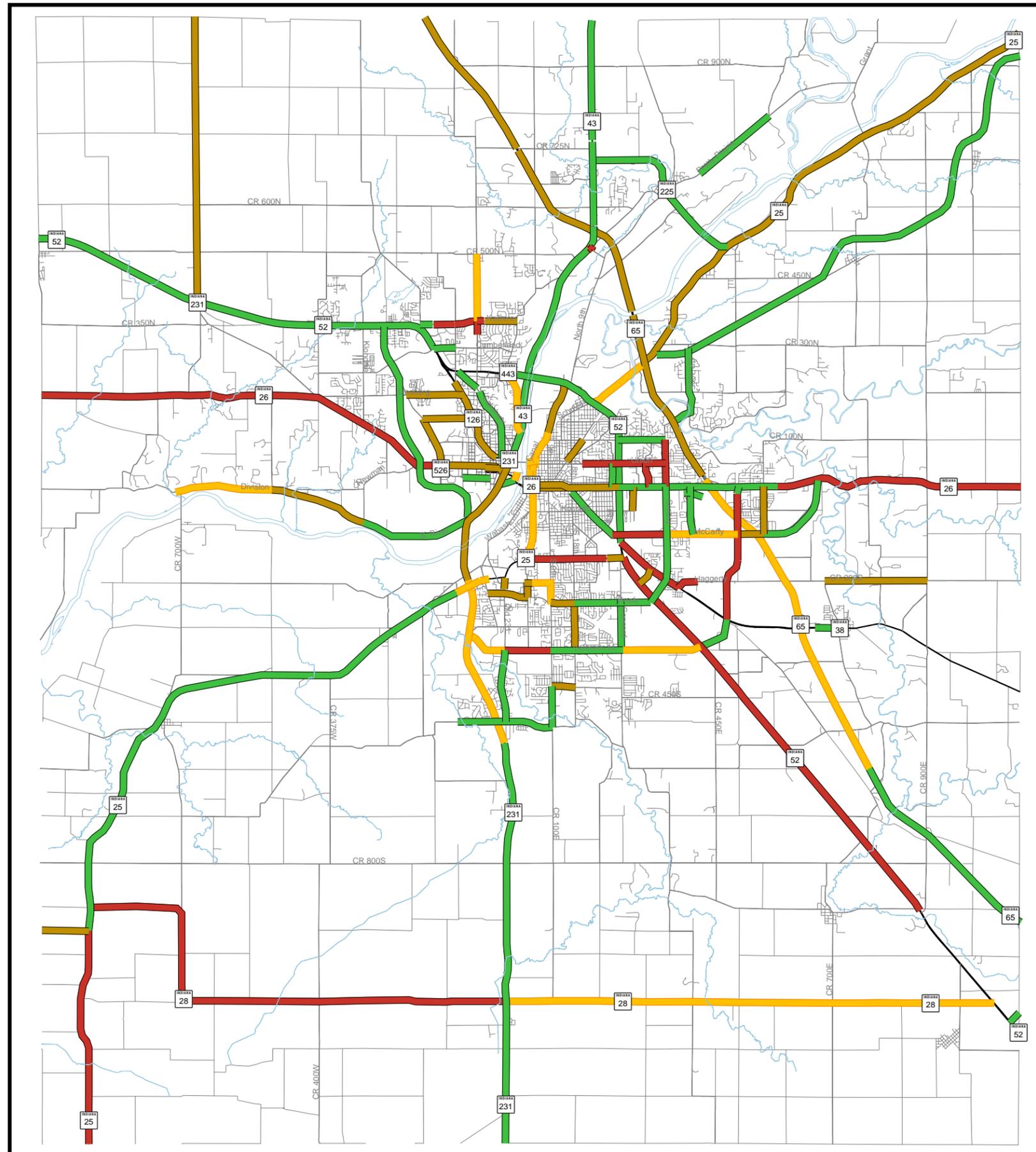
All railroad crossings in our community are owned by railroad companies. In most cases, railroads owned the right-of-way prior to urban development and construction of the street network. Railroad crossings require periodic maintenance to keep the surfaces smooth. Crossings are protected at a minimum, by warning signs and with four-quadrant gates for the greatest protection. Grade separation is desirable when highway volumes are high. Once built, bridges are maintained as part of the bridge inventory.

Highway system operations include day-to-day maintenance provided by local and state agencies to keep the system functioning. This includes funding the electricity for traffic signals and street lights, as well as patching, cleaning and mowing. Highway system maintenance costs vary depending on weather and use.

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Figure 29

# Historic Highway Improvements



**Year of Construction**

- 1995 and Older
- Between 1996 to 1999
- Between 2000 to 2005
- 2006 and Newer

0 1.5 3 4.5  
Miles

Prepared by the Area Plan Commission of Tippecanoe County, May 25, 2012

Source: TIP and Annual Listing of Projects

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## **2. Transit Management and Operation**

CityBus uses various funding sources to maintain its assets and services. Assets include the buses, support vehicles, the downtown transfer station, a large maintenance facility on Canal Road and bus stop shelters. The most significant management cost for CityBus is the maintenance and replacement of vehicles. Also additional costs in operating the bus system include the bus drivers, maintenance of facilities and equipment and fuel for the vehicles.

## **3. Trail Management and Operation**

Pedestrian and bicycle trails are relatively new assets in the community. They are located in the two cities and along the Wabash River. Maintenance and management of trail pavement is a primary concern for local governments. Where trails and roads are grade-separated, the integrity of related bridges must be maintained. Operational expenses related to trails include on-going cleaning and vegetation control in the right of way.

## **4. Support Systems**

All transportation system elements are supported by emergency response services. These include state and local police, local fire departments, TEMA and emergency medical services. These agencies respond to crashes and other emergency situations within the transportation infrastructure. They also enforce laws that are part of efforts to promote safe and efficient operation of these systems. Funding for these agencies is separate from operations and maintenance of the transportation system.

## **K. The Plan, Phasing and Implementation**

Projects proposed in the *2040MTP* are based on extensive community input, and on projects identified but not yet constructed from the technically more rigorous *Transportation Plan for 2025*. The *2040MTP* recommends improvements in four functional areas: highways, bicycle facilities, sidewalks and trails. All projects are prioritized and assigned implementation time ranges to provide flexibility. Highway project costs are estimated and shown along with the fiscally constrained recommended list of projects for Federal funding.

The *2040MTP* is a joint effort by the staffs of APC, Tippecanoe County, Lafayette, and West Lafayette, with input from Purdue University, CityBus, and INDOT. The Plan has been reviewed and approved by the Area Plan Commission and its Citizen Participation, Technical, and Administrative Committees. INDOT maintains a separate list of needed improvements for state highways and the *2040MTP* supports those state projects. However, the community has identified additional needs not yet fully endorsed by the State; those projects have been included in the *2040MTP* for illustrative purposes. The list of those state projects is contained in a letter from INDOT and included in Appendix 7.

The proposed improvements in the *2040MPT* will be implemented over time when the financial resources become available. They cannot be constructed in a short period of time because each improvement must first be fully designed, right-of-way acquired and construction funding secured which can take years depending on a project's complexity.

The Plan forecasts a possible future that will be revisited to meet continuously-changing conditions and needs. It is only one component among many that serve as a way to achieve overall community-wide goals. Responsible local and state implementation agencies need to be alert to the realities of urban development and modify these strategies as needed.

### **1. Highway Recommendations**

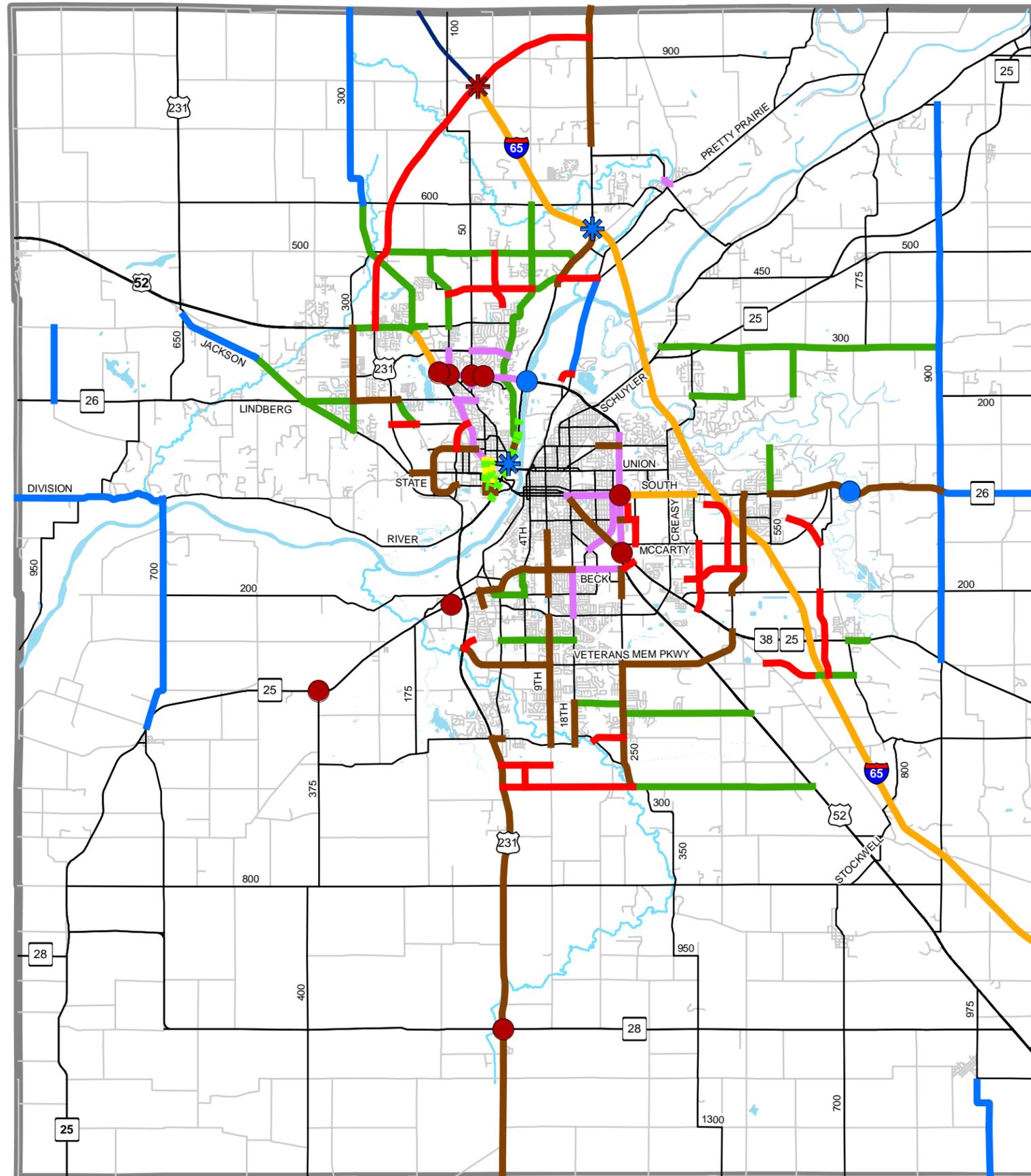
All of the recommended highway projects build on more than 30 years of transportation planning in the community. The *2040MTP* recommends the projects shown in **Figure 30, 31 and 32**, and listed in **Table 9**. The projects recognize existing needs and address the population and economic growth this community anticipates. It continues the previous planning emphasis on improving circulation by upgrading the road network with alternative routes and targeted safety and congestion improvements. The project descriptions in Appendix 4 briefly describe each of the recommended projects.

The list of INDOT projects in Table 9 contains both funded and unfunded/illustrative projects. Both have been included to properly identify future needs as well as financial limitations.

Functional Classification of our roads is one tool to ensure that highway funds are allocated to roads that are most important. The proposed Functional Classification of recommended future roads is shown in Appendix 5. The MPO will update both the Functional Classification and Federal Aid system of roads based on new Urban Area Boundaries after the 2010 Census. That work is programmed in the MPO's FY-2013 Unified Planning Work Program (UPWP).

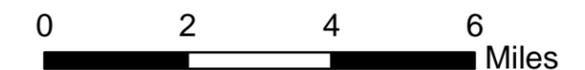
# Figure 30

## Recommended Highway Projects for Tippecanoe County



### Recommended Improvements

- New Road
- Road Reconstruction
- One Way Improvements
- Rural to Urban
- Rural Improvement
- ▤▤▤▤ Corridor Study
- Four Lane Improvement
- Six Lane Improvement
- Intersection Improvement
- ✱ New Interchange
- Bridge Replacement
- ✱ Interchange Improvement



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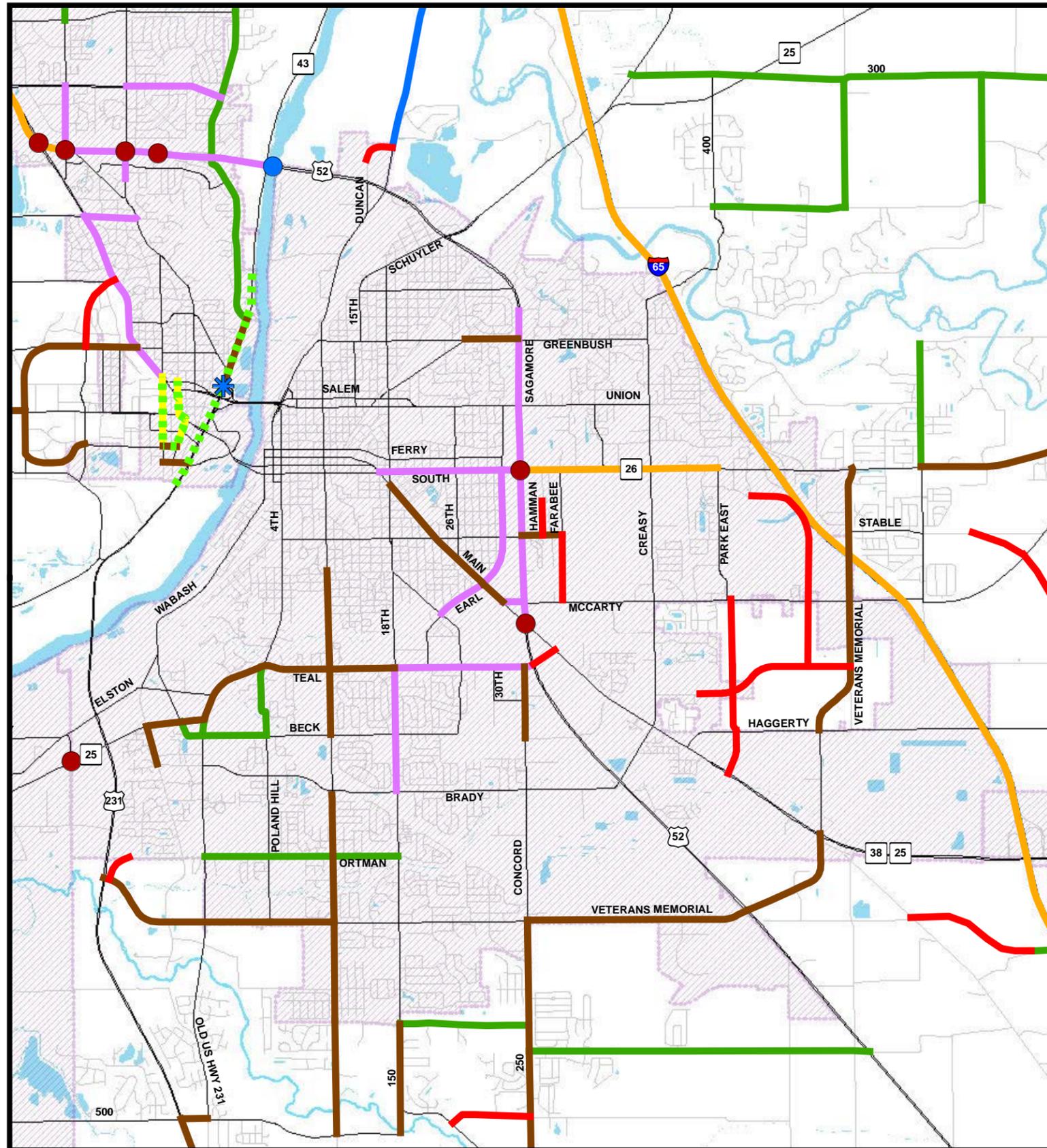
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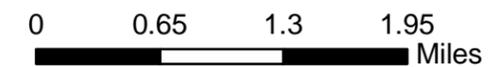
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Figure 31  
 Recommended Highway Projects for Lafayette



**Recommended Improvements**

- New Road
- Road Reconstruction
- One Way Improvements
- Rural to Urban
- Rural Improvement
- ▤▤▤▤ Corridor Study
- Four Lane Improvement
- Six Lane Improvement
- Intersection Improvement
- ✱ New Interchange
- Bridge Replacement
- ✱ Interchange Improvement



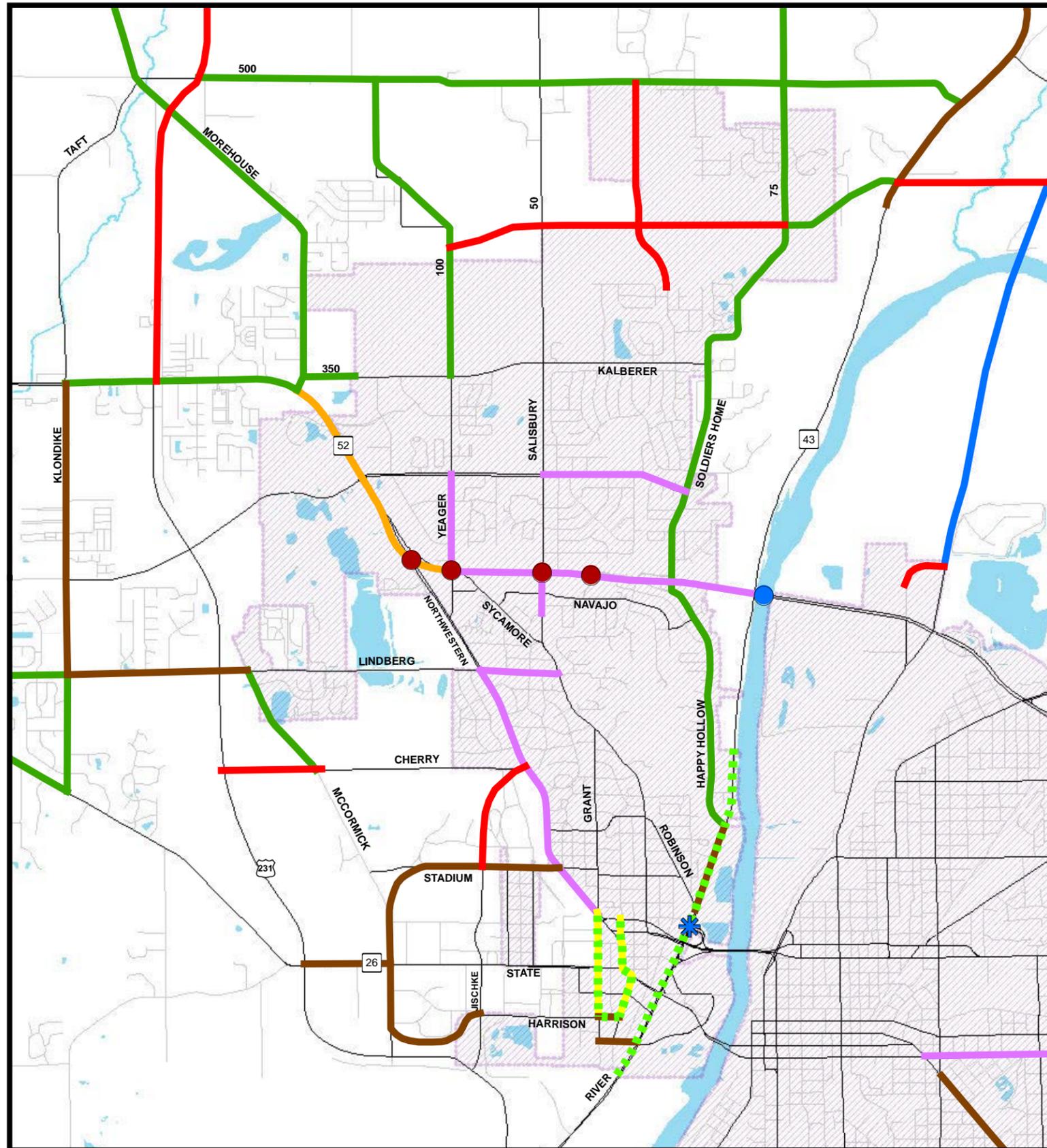
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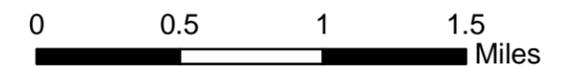
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Figure 32  
 Recommended Highway Projects for West Lafayette



**Recommended Improvements**

- New Road
- Road Reconstruction
- One Way Improvements
- Rural to Urban
- Rural Improvement
- ▨ Corridor Study
- Four Lane Improvement
- Six Lane Improvement
- Intersection Improvement
- ✱ New Interchange
- Bridge Replacement
- ✱ Interchange Improvement



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Date: June 2012

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**Table 9, Highway Projects in the 2040 Metropolitan Transportation Plan**

<b>Project</b>	<b>Location</b>	<b>Priority</b>	<b>Type of Improvement</b>	<b>Project Cost</b>
<b>Lafayette Projects</b>				
Hamman St	Hamman to Kossuth St	In TIP	New Road	2,160,000
Beck Ln	Old US 231 to Poland Hill Rd	In TIP	Rural to Urban	1,820,000
Old Romney Rd	SR 25 to Twyckenham Blvd	In TIP	Four Lane Improvement	3,550,000
Veterans M. P.	Concord Rd to US 52	In TIP	Four Lane Improvement	4,320,000
Sagamore Pkwy	Beech to SR 25/38	In TIP	Reconst. w/ Sidewalks	21,000,000
Earl Ave / 22nd	South St to Teal Rd	High	Road Reconstruction	6,140,000
South St	Earl Ave to Sagamore Pkwy	High	Road Reconstruction	490,000
South St	At Sagamore Pkwy	High	Intersection Improvement	1,930,000
South 9th St	Twyckenham Blvd to Vet. M P	High	Widening & Reconstruction	6,780,000
Greenbush St	Elmwood Ave to Sagamore Pkwy	Medium	Four Lane Improvement	4,470,000
South St	Main St to Earl Ave	Medium	Road Reconstruction	4,290,000
Kossuth St	Sagamore Pkwy to Farabee Dr	Medium	Rural to Urban	510,000
Farabee Dr	Kossuth St to McCarty Ln	Medium	New Road	3,270,000
McCarty Ln	At Main St & to Sagamore Pkwy	Medium	Intersection & Reconst.	690,000
South 9th St	Veterans M. P. to CR 430S	Medium	Four Lane Improvement	11,540,000
South 18th St	Teal Rd to Brady Ln	Medium	Complete Streets	400,000
Veterans M. P.	US 52 to SR 38	Medium	Four Lane w/ Trail	12,730,000
Veterans M. P.	Haggerty Ln to SR 26	Medium	Four Lane Improvement	23,030,000
Poland Hill Rd	Teal Rd to Beck Ln	Medium	Rural to Urban	3,600,000
South St (old SR 26)	Sag. Pkwy. to Park East Blvd	Medium	Six Lane w/ Sidewalks	20,830,000
Main St	18th to McCarty Ln	Low	Four Lane Improvement	17,330,000
Park East Blvd	McCarty Ln to SR 38	Low	New Road	15,960,000
Concord Rd	Teal Rd to Maple Point Rd Ext.	Low	Widening & 3 Lane	7,580,000
South 9th St	Owen St to Teal Rd	Low	Four Lane Improvement	9,210,000
South 9th St	Teal Rd to Beck Ln	Low	Four Lane Improvement	6,770,000
Old US 231	SR 25 to Beck Ln	Low	Rural to Urban	580,000
South Beck Lane	SR 25 to Old US 231	Low	Rural to Urban	1,080,000
Veterans M. P.	New US 231 to South 9th St	Low	Four Lane Improvement	25,860,000
Ortman Ln	Old US 231 to 18th St	Low	Rural to Urban	7,340,000
<b>West Lafayette Projects</b>				
Yeager Rd	Kalberer to City Limits	In TIP	Rural to Urban	4,500,000
Salisbury St	Navajo St to Rainbow Dr	In TIP	Road Reconstruction	2,000,000
Soldiers Home Rd	US 52 to Kalberer Rd	In TIP	Rural to Urban	8,150,000
Soldiers Home Rd	Kalberer Rd to City Limits	In TIP	Rural to Urban	9,800,000
Happy Hollow Rd	North River Rd to US 52	In TIP	Rural to Urban	4,350,000
Traffic Signal Coordination	Throughout City	High	Traffic Signal Upgrade	440,000
Lindberg Rd	Northwestern Ave to Salisbury St	High	Road Reconstruction	1,280,000
River Rd	RR Overpass to N. City Limits	High	Corridor Study	100,000
Northwestern Ave	Lindberg Rd to Grant St	High	Reconst. and Safety Imp.	4,890,000
Yeager Rd	US 52 to Cumberland Ave	Medium	Road Reconstruction	2,470,000
Cumberland Ave	Salisbury St to Soldiers Home Rd	Medium	Road Reconstruction	8,600,000
CR 75E	Soldiers Home Rd to CR 500N	Medium	Rural to Urban	6,820,000
North River Rd	Dehart St to Happy Hollow Rd	Low	Three Lane Improvement	2,020,000
North River Rd	Harrison Bridge Interchange	low	New Ramp Connection	550,000
<b>Tippecanoe County</b>				
Klondike Rd	US 52 to Lindberg Rd	In TIP	Four Lane w/ Trail	7,300,000
Lindberg Rd	McCormick Ln to Klondike Rd	In TIP	Four Lane w/ Trail	3,030,000
McCormick Ln	Cherry Ln to Lindberg Rd	In TIP	Rural to Urban	2,970,000
Cherry Ln Ext.	McCormick Ln to Rel. US 231	In TIP	New Road	4,990,000
North Yeager Rd	Curve Correction/CR 500N	In TIP	Rural to Urban	2,300,000
State St (SR 26)	Airport Rd to Rel. US 231	High	Four Lane w/ Trail	3,650,000
Klondike Rd	Lindberg Rd to State St (SR 26)	Medium	Rural to Urban w/ Trail	1,800,000
Lindberg Rd	Klondike Rd to SR 26	Medium	Rural to Urban	8,290,000
Division Rd	CR 700W to County Line Rd	Medium	Rural Improvement	8,740,000

**Table 9, Highway Projects in the 2040 Metropolitan Transportation Plan (continued)**

<b>Project</b>	<b>Location</b>	<b>Priority</b>	<b>Type of Improvement</b>	<b>Project Cost</b>
<b>Tippecanoe County</b>				
CR 700W	SR 25 to Division Rd	Medium	Rural Improvement	13,560,000
CR 450S	Concord Rd to US 52	Medium	Rural to Urban w/ Trail	10,370,000
CR 430S	South 18th to Concord Rd	Medium	Rural to Urban w/ Trail	3,900,000
Concord Rd	Veterans M. P. to CR 450S	Medium	Four Lane w/ Trail	8,840,000
Concord Rd	CR 450S to CR 600S	Medium	Four Lane Improvement	18,990,000
South 18th St	CR 430S to CR 510S	Medium	Four Lane w/ Trail	8,510,000
South 9th St	CR 430S to CR 510S	Medium	Four Lane w/ Trail	9,170,000
CR 500E	CR 200N to CR 300N	Medium	Rural to Urban	3,860,000
CR 900E	SR 26 to SR 38	Medium	Rural Improvement	9,700,000
CR 900E	SR 26 to CR 300N	Medium	Rural Improvement	8,260,000
CR 900E	CR 300N to CR 800N	Medium	Rural Improvement	14,100,000
North 9th St	Sagamore Pkwy to Swisher Rd	Medium	Rural Improvement w/ Trail	6,720,000
CR 500N	North River Rd to County Farm Rd	Medium	Rural to Urban	8,640,000
CR 500N	County Farm Rd to Rel. 231	Medium	Rural to Urban	6,900,000
Soldiers Home Rd	City Limits to North River Rd	Medium	Rural to Urban	3,310,000
Morehouse Rd	US 52 to CR 600N	Medium	Rural to Urban w/ Trail	11,870,000
CR 350N	Morehouse Rd to City Limits	Medium	Rural to Urban	790,000
Jackson Highway	SR 26 to Urban Area Boundary	Low	Rural to Urban	6,750,000
Jackson Highway	Urban Area Bound. to CR 650W	Low	Rural Improvement	4,240,000
CR 925W	SR 26 to CR 350N	Low	Rural Improvement	5,280,000
CR 975E	Railroad to CR 1300S	Low	Rural Improvement	7,670,000
CR 600S	Wea School Rd to US 52	Low	Rural to Urban	21,680,000
CR 500S	New US 231 to Old 231	Low	Four Lane w/ Trail/sidewalk	2,710,000
CR 350S / CR 400S	New Castle Rd to Dayton Rd	Low	New Road / Rural Imp.	12,150,000
CR 550E	SR 26 to CR 100N	Low	Rural to Urban	4,500,000
CR 600E	CR 200N to CR 300N	Low	Rural to Urban	4,890,000
CR 200N	CR 400E to CR 500E	Low	Rural to Urban	4,990,000
CR 300N	Old SR 25 to CR 750E	Low	Rural to Urban	20,540,000
CR 300N	CR 750E to CR 900E	Low	Rural to Urban	7,340,000
N River Rd (SR 43)	New State park Rd to I-65	Low	Four Lane	7,200,000
East County Line Rd.	SR 25 to SR 26	Low	Rural Improvement	31,360,000
Morehouse Rd	CR 600 N to County Line Rd	Low	Rural Improvement	14,570,000
<b>Purdue Area</b>				
Williams Ave	Sheets St to South River Rd	High	Four Lane Improvement	6,860,000
Grant/Chauncey/Vine	Fowler/Wiggins to Harrison St	High	One Way Improvements	1,500,000
Grant/Chauncey/Vine	Fowler/Wiggins to Harrison St	High	Corridor Study	150,000
Grant/Chauncey/Vine	Fowler/Wiggins to Harrison St	High	Results of Corridor Study	1,800,000
McCormick Ln	State St to Stadium Ave	Medium	Four Lane Improvement	4,690,000
Stadium Ave	Jischke Dr to McCormick Ln	Medium	Four Lane Improvement	4,910,000
Stadium Ave	Jischke Dr to Northwestern Ave	Low	Four Lane Improvement	12,640,000
Airport Rd	State St to US 231	Low	Four Lane Improvement	4,470,000
North Jischke Dr	Stadium Ave to Northwestern Ave	Low	New Road	7,150,000
Northwestern Ave	Jischke Dr to Stadium Ave	Low	Four Lane Improvement	7,630,000
Harrison St	Jischke Dr to Airport Rd	Low	Four Lane Improvement	7,310,000
<b>Town of Dayton</b>				
Yost Dr	SR 38 to Haggerty Ln	Medium	New Road	9,550,000
<b>Town of Battle Ground</b>				
North St	N of Burnett's Cr. to CSX Tracks	In TIP	Road Reconstruction	1,280,000
<b>INDOT (* indicate unfunded/illustrative projects)</b>				
US 52	EB Bridge over Wabash River	In TIP	Bridge Replacement	12,500,000
SR 26	At South Fork of Wildcat Creek	Medium	Replace Bridge	2,040,000
*SR 25	Old Romney to Old US 231	High	Four Lane Improvement	3,730,000
*SR 25	Old US 231 to Teal Rd	High	Four Lane Improvement	5,220,000
*SR 25/Teal Rd	4th St to 9th St	High	Four Lane Improvement	4,310,000

**Table 9, Highway Projects in the 2040 Metropolitan Transportation Plan (continued)**

Project	Location	Priority	Type of Improvement	Project Cost
<b>INDOT (* indicates unfunded/illustrative projects)</b>				
*SR 25/Teal Rd	9 <sup>th</sup> St to 18 <sup>th</sup> St	High	Four Lane Improvement	4,140,000
*SR 25	Teal Rd to SR 25/38	High	New Road	1,970,000
*US 52	At Nighthawk Ln	High	Intersection Improvement	6,910,000
*US 52	At Salisbury St	High	Intersection Improvement	6,910,000
*US 52	Yeager Rd to Morehouse Rd	High	Six Lane w/ Rural to Urban	17,260,000
*US 52	Morehouse Rd to Klondike Rd	High	Rural to Urban	3,590,000
*SR 25	At SR 38	High	Intersection Improvements	1,190,000
*US 231	US 52 to I-65	High	New Road	66,350,000
*I-65	East County Line to South of SR 38	High	Six Lane Widening	151,360,000
I-65	South of SR 38 North of SR 26	High	Six Lane Widening	32,460,000
I-65	North of SR 26 to North of SR 25	High	Six Lane Widening	36,650,000
*I-65	North of SR 25 to SR 43	High	Six Lane Widening	258,320,000
*SR 25/Teal Rd	18 <sup>th</sup> St to US 52	Medium	Road Reconstruction	4,260,000
*SR 26	CR 550E to CR 900E	Medium	Four Lane & Super Two	12,000,000
*SR 43	CR 725N to County Line	Medium	Four Lane Improvement	37,500,000
*I-65 Interchange	At US 231	Medium	New Interchange	25,650,000
*US 231	I-65 to SR 43	Medium	New Road	31,090,000
*US 231	CR 500S to South County Line	Medium	Four Lane Improvement	92,650,000
*US 231	At SR 28	Medium	Intersection Improvement	410,000
*I-65	SR 43 to New US 231	Medium	Six Lane Widening	52,840,000
*SR 25	CR 100W to CR 375W	Low	Intersection Capacity	3,290,000
*SR 26	CR 900E to County Line	Low	Rural Improvements	11,390,000
*SR 38	Phase II, east part of Dayton	Low	Rural to Urban	1,320,000
*US 52	At Yeager Rd	Low	Intersection Improvement	6,910,000
*US 52	At Northwestern Ave	Low	Intersection Improvement	10,590,000
<b>Indiana Department of Natural Resources</b>				
Prophetstown Park	SR 43 to North 9 <sup>th</sup>	Low	New Road	10,130,000
<b>Private Development</b>				
Stable Dr	CR 550E to McCarty Ln	As Dev.	New Road	
Stable Dr	McCarty Ln to CR 650E	As Dev.	New Road	
Yost Dr	SR 38 to CR 400S	As Dev.	New Road	
Duncan Rd	Existing Dead End to N. 9 <sup>th</sup>	As Dev.	New Road	
E-W Collector (Laf)	St. Francis Way to Park East Blvd	As Dev.	New Road	
E-W Collector (Laf)	Park East to Commerce Dr	As Dev.	New Road	
E-W Collector (Laf)	Commerce Dr to Vet. Mem. Pkwy.	As Dev.	New Road	
CR 300S	Existing to Vet. M. P.	As Dev.	New Road	
Commerce Dr	Existing to McCarty Ln	As Dev.	New Road	
Commerce Dr	McCarty Ln to E-W Collector	As Dev.	New Road	
CR 500S	Wea School Rd to Concord Rd	As Dev.	New Road	
CR 550S	US 231 to CR 50E	As Dev.	New Road	
CR 600S	US 231 to CR 250E	As Dev.	New Road	
N-S Collector (Co)	CR 550S to CR 600S	As Dev.	New Road	
N-S Collector (WL)	CR 500N to Kalberer Rd	As Dev.	New Road	
E-W Collector (WL)	Yeager Rd to Soldiers Home Rd	As Dev.	New Road	

**2. Non-motorized Recommendations**

One of the goals of the 2040MTP is to meet the growing need for bicycle and pedestrian facilities. Choosing to walk or bike provides many community benefits including reduced traffic congestion, improved health and fitness and better quality of life. However, motivating people to walk or bike requires developing safe, convenient and attractive facilities.

The 2040MTP focuses on facilities. The broader issues of education, encouragement, enforcement and evaluation will be addressed in a comprehensive bicycle and pedestrian included in the FY 2013 UPWP.

In developing the 2040MTP, we recognized and considered the different abilities of pedestrians and bicyclists. Bicyclists gravitate toward certain facilities depending on their skill level and their perception of its safety. Some cyclists prefer facilities separated from the road. On sidewalks, however, this can create conflicts with pedestrians. Many experienced riders prefer to ride with traffic in the travel lane no matter which road they are on. The proposed network seeks to accommodate all users and recommends various facility designs depending on location and use.

The focus of the 2040MTP is on the creation of a comprehensive network of facilities throughout our community. Priorities for implementing the proposed improvements focus on connecting key destinations and connecting gaps between existing facilities. The facility recommendations in the 2040MTP are not the only facilities that should be constructed. With a Complete Streets Policy in the 2040MTP all federally funded road improvements will consider accommodating all modes of travel. All jurisdictions must take advantage of opportunities to develop bicycle and pedestrian facilities with other infrastructure improvements, and through public/private partnerships.

The lists of recommended bicycle and pedestrian facilities in the 2040MTP are based on comments, suggestions and recommendations from local groups, agencies, organizations, government agencies, and individual citizens. The projects are listed by facility type: sidewalks, bicycle facilities and trails. The proposed trails benefit both pedestrians and cyclists so a separate list was created showing only recommended trails. Several projects recommend both a sidewalk and a trail and are subsequently included on both lists. The individual lists designate which government agency will be responsible for constructing the improvement and provide a general priority and time frame for construction based upon agreed need.

The 2040MTP recommends the projects shown in **Figures 33, 34, and 35** and listed in **Tables 10, 11, and 12**. They build on the existing plans for Lafayette and West Lafayette, and the results of the US 52 Corridor Study. The list of recommendations includes some of the facilities recommended in these plans. These recommended facilities were raised up in public discussions so often that their additional emphasis is appropriate. All facilities in the plans are an integral part of the comprehensive sidewalk, trail and bicycle network.

The 2040MTP recommends that connections to the Farm Heritage Trail along the former Big Four rail corridor between Lafayette and Zionsville be pursued by the community. The 1½ mile portion of the trail already constructed outside of Tippecanoe County has overcome some unresolved railroad ownership issues. The Farm Heritage Trail organization will first have to research those issues in Tippecanoe County. When built, the trail will provide a non-motorized link to Indianapolis. In Tippecanoe County a proposed routing would have the trail follow the old railroad corridor to CR 450S, and then use a future trail along Concord Road to connect to existing city trails.

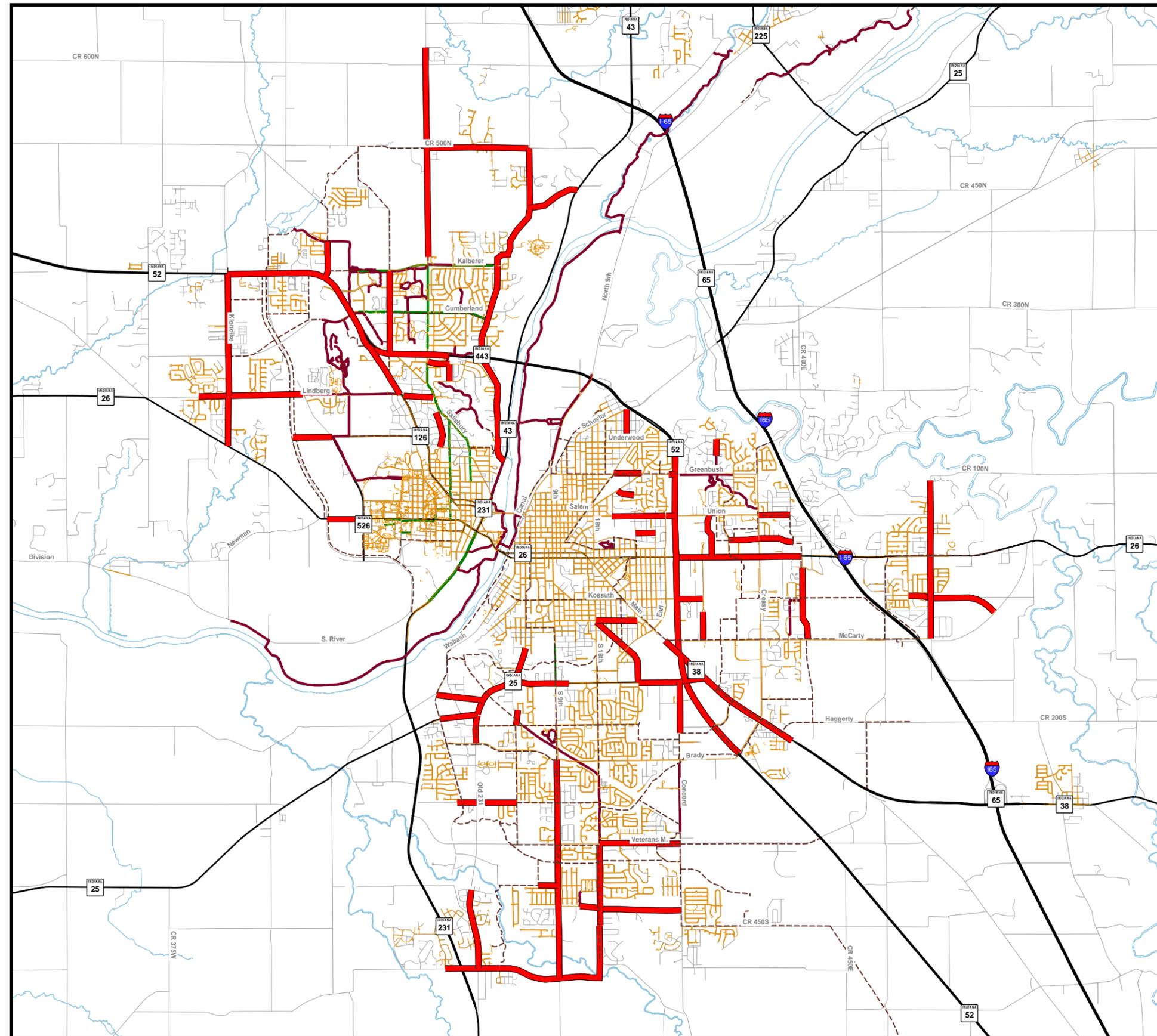
The 2040MTP recommends the widespread use of the yellow “Share the Road” signs on roads that are important to bicyclists. They have the dual purpose of informing motorists that bicyclists have the right to use the road and also remind them they may encounter cyclists. The signs are most important on roads that act as exits and entries into the urban area and on rural roads often used by the Wabash River Cycle Club and other recreational riders. **Figure 36** shows the recommended routes for Share the Road signs.

The AASHTO in conjunction with Adventure Cycling has adopted a US Bicycle Route System. The preliminary location of USBR-35 is to the east of our community. The 2040MTP recommends at a minimum developing a proposed route to link to USBR 50 and USBR 35, and ideally to change the routing of USBR 35 to go directly through our community.

Recognizing the importance and necessity of sidewalks, trails and bicycle facilities, the 2040MTP recommends that 10% of this community’s Federal Surface Transportation Program funds, or its equivalent in future transportation acts, be designated for independent non-motorized projects that are not a part of a larger highway project.

Figure 33

# Recommended Sidewalk Projects



**Existing Facilities**

- Trail
- Bike Lane
- Sidewalk

**Proposed Facilities**

- Proposed Trails by Others
- Sidewalk Improvements

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Miles



Prepared by the Area Plan Commission of Tippecanoe County, May 25, 2012

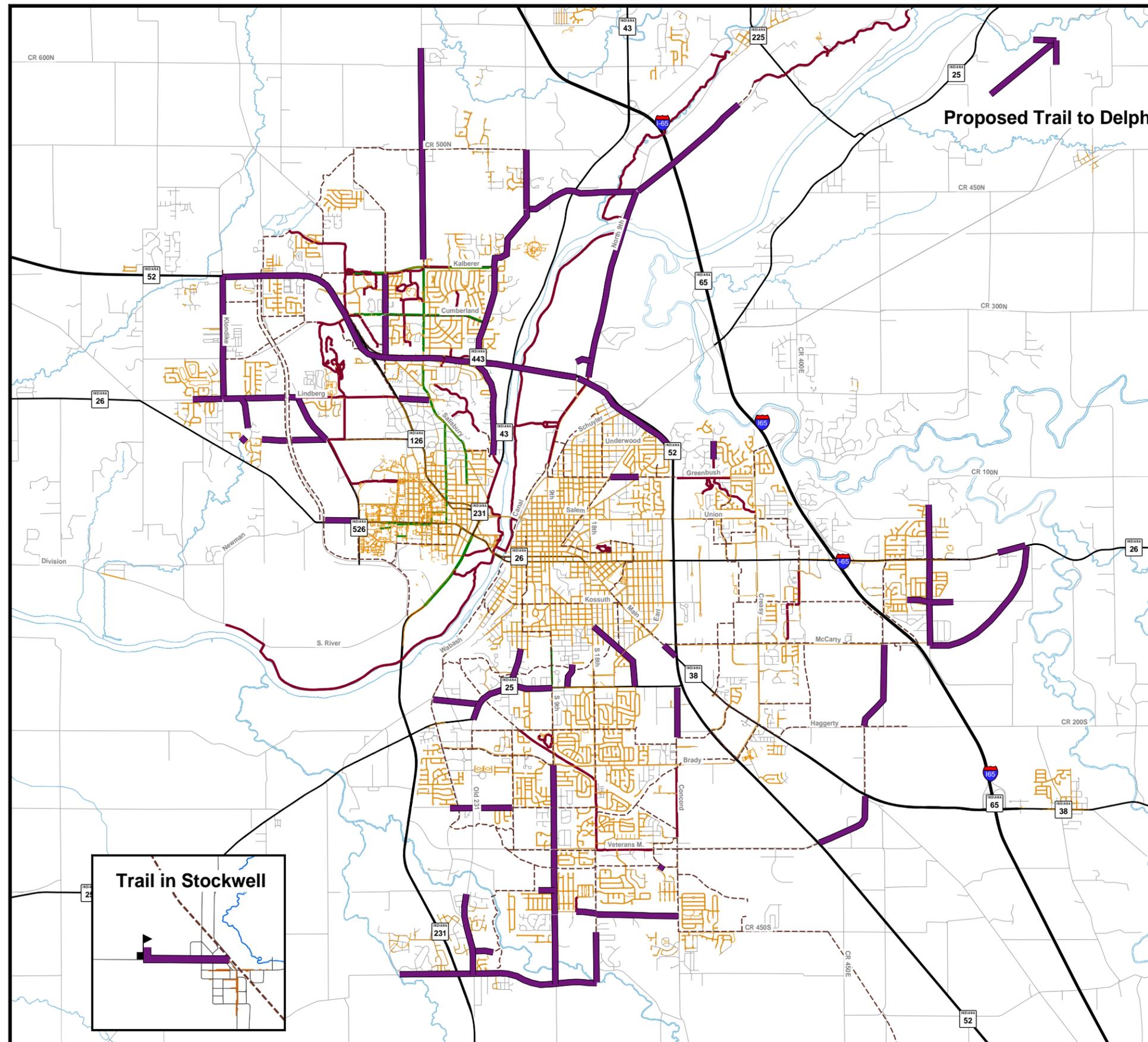
Information about the location of existing trails, sidewalks, sidepaths and bike lanes is from aerial photography taken in 2010

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Figure 34

# Recommended Trail Projects



**Existing Facilities**

- Trails
- Sidewalks
- Bike Lanes

**Proposed Trails**

- Proposed Trails by Others
- Recommended Trails

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Miles

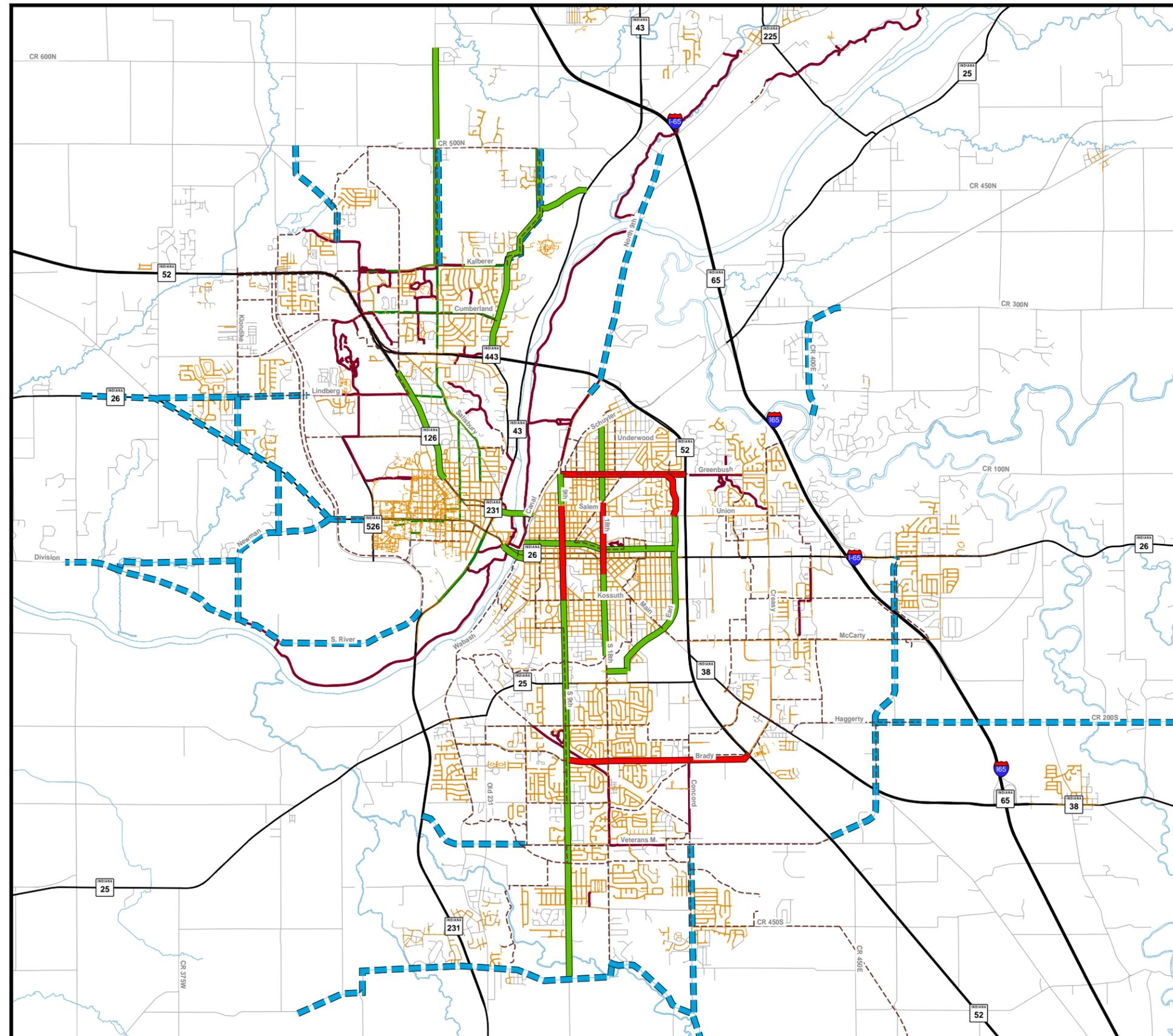
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Note: The location of existing trails, sidepaths and bike lanes are based on 2010 aerial photography.

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Figure 35  
**Recommended  
 Bicycle  
 Projects**



**Existing Facilities**

- Trail
- Bike Lane
- Sidewalk

**Bicycle Recommendations**

- Bike Lanes
- Sharrows
- - - Shared Road Signage

0 .5 1 1.5  
 Miles

Prepared by the Area Plan Commission  
 of Tippecanoe County, May 25, 2012

Information about the location of existing trails,  
 sidewalks, sidepaths and bike lanes is from  
 aerial photography taken in 2010

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**Table 10, Recommended Sidewalk Projects<sup>1</sup>**

<b>Route/Road</b>	<b>Location</b>	<b>Facility Type</b>	<b>Jurisdiction</b>
<b>Short Range (&lt;10 years)</b>			
Lindberg Rd	Klondike Rd to Cousteau Dr	Sidewalk & Trail	County
Lindberg Rd	McCormick Ln to Klondike Rd	Sidewalk & Trail	County
Klondike Rd	Lindberg Rd to US 52	Sidewalk & Trail	County
CR 430S	18 <sup>th</sup> St to Concord Rd	Sidewalk on one side	County
State St (SR 26)	Rel. US 231 to Airport Rd	Sidewalk & Trail	County
Cherry Ln Ext.	Rel. US 231 to McCormick Ln	Sidewalk & Trail	County
South 18 <sup>th</sup> St	Veterans M.P. to Wea Ridge M.S.	Sidewalk & Trail	Lafayette
Greenbush St	Erie St to Elmwood Ave	Sidewalk & Trail	Lafayette
Union St	Hedgewood Dr to Sag. Pkwy.	Sidewalk on both sides	Lafayette
Rome Dr	Creasy Ln to Shenandoah Dr	Sidewalk on both sides	Lafayette
Park East Blvd	Commerce Dr to McCarty Ln	Sidewalk on both sides	Lafayette
Kossuth St	Sagamore Pkwy to Farabee Ln	Sidewalk on both sides	Lafayette
Farabee Dr Ext.	Existing to McCarty Ln	Sidewalk on both sides	Lafayette
36 <sup>th</sup> St	South St to Union St	Sidewalk on both sides	Lafayette
Veterans M.P.	Concord Rd to 18 <sup>th</sup> St	Sidewalk on north side & accessible bus stops	Lafayette
Poland Hill Rd	Beck Ln to Poland Ln	Sidewalk on both sides	Lafayette
South St.	Sagamore Pkwy to Park East Blvd	Sidewalk on both sides	Lafayette
Sag. Pkwy (US 52)	SR 25/38 (Main) to Underwood	Sidewalk on both sides	Lafayette
Soldiers Home Rd	Happy Hollow Rd to Kalberer Rd	Sidewalk, Bike Lane and Trail	West Lafayette
Soldiers Home Rd	Kalberer Rd to CR 75E	Sidewalk, Bike Lane and Trail	West Lafayette
Lindberg Rd	Northwestern Ave to Salisbury St	Sidewalk & Trail	West Lafayette
Yeager Rd	US 52 to Kalberer Rd	Sidewalk & Trail	West Lafayette
Happy Hollow Rd	N River Road to Soldiers Home Rd	Sidewalk & Trail	West Lafayette
SR 25W	Old Romney Rd to Old US 231	Sidewalk on both sides	INDOT
SR 25	S 4 <sup>th</sup> St to Old US 231	Sidewalk & Trail	INDOT
SR 25 (Teal)	S 4 <sup>th</sup> St to 9 <sup>th</sup> St	Sidewalk & Trail	INDOT
SR 25 (Teal)	9 <sup>th</sup> to Existing Sidewalk	Sidewalk on south side	INDOT
SR 25	26 <sup>th</sup> St to US 52	Sidewalk on both sides	INDOT
<b>Medium Range (10-20 years)</b>			
Klondike Rd	Lindberg to SR 26	Sidewalk on both sides	County
Morehouse Rd	US 52 to Trail	Sidewalk on both sides	County
Brown St	26 <sup>th</sup> to 30 <sup>th</sup>	Sidewalk on both sides	Lafayette
Union St	Salem to Hedgewood	Sidewalk on both sides	Lafayette
State St & 26 <sup>th</sup> St	18 <sup>th</sup> to SR 25	Sidewalk & Trail	Lafayette
Old US231	SR 25 to Twyckenham	Sidewalk on one side	Lafayette
South 9 <sup>th</sup> St	Twyckenham to City Limits	Sidewalk & Trail	Lafayette
South 9 <sup>th</sup> St.	Ortman to City Limits	Sidewalk & Trail	Lafayette
Navajo St	Salisbury to Huron	Sidewalk on both sides	West Lafayette
Huron Rd	Navajo to Indian Trail	Sidewalk on both sides	West Lafayette
Ravinia Rd	Leslie to Riley	Sidewalk at least on one side	West Lafayette
Northwestern Ave	Lindberg to US 52	Sidewalk & Bike Lane	West Lafayette
CR 75E	Soldiers Home Rd to CR 500N	Sidewalk, Bike Lane & Trail	West Lafayette
SR 25/38	Main St to Maple Point Dr	Sidewalk on both sides	INDOT
<b>Long Range (20-30 years)</b>			
Old US 231	Creekview Dr to CR 500 S	Sidewalk & Trail	County
CR 500S	Admirals Pt to Snowberry Ln	Sidewalk & Trail	County
CR 500S/510S	18 <sup>th</sup> to Snowberry Ln	Sidewalk & Trail	County
South 9 <sup>th</sup> St	City Limits to Red Oak Ln	Sidewalk & Trail	County
South 9 <sup>th</sup> St.	Red Oak Ln to CR 510S	Sidewalk & Trail	County
CR 430 S	18 <sup>th</sup> St to Trail	Sidewalk & Trail	County
South 18 <sup>th</sup> St	Wea Ridge M.S. to CR 510S	Sidewalk & Trail	County
CR 550E	Blackberry Ln to SR 26	Sidewalk & Trail	County
CR 550E	SR 26 to McCarty Ln	Sidewalk & Trail	County
Soldiers Home Rd	CR 75E to N River Rd	Sidewalk, Bike Lane & Trail	County
Stable Dr	S Brookfield Dr to School	Sidewalk & Trail	Developer/County

**Table 10, Recommended Sidewalk Projects<sup>1</sup> (continued)**

<b>Route/Road</b>	<b>Location</b>	<b>Facility Type</b>	<b>Jurisdiction</b>
<b>Long Range (20-30 years)</b>			
CR 400S	9 <sup>th</sup> St to Soccer Fields/Trail	Sidewalk & Trail	Lafayette
Ortman Ln	Poland Hill Rd to Cromwell Ln	Sidewalk & Trail	Lafayette
South 4 <sup>th</sup> St	Montefiore St to SR 25	Sidewalk & Trail	Lafayette
Elston Rd	SR 25 to Old Romney Rd	Sidewalk & Trail	Lafayette
Concord Rd	SR 25 to Maple Point Dr	Sidewalk & Trail	Lafayette
Main St	McCarty Ln to SR 25	Sidewalk & Trail	Lafayette
Central St	18 <sup>th</sup> St to 26 <sup>th</sup> St existing walk	Sidewalk on both sides	Lafayette
Rainbow/Tulip Ln	Elmwood Ave to existing walk	Sidewalk on one side	Lafayette
Union St	Creasy Ln to Courtland Ave	Sidewalk on one side	Lafayette
23 <sup>rd</sup> St	Schuyler Ave to Underwood St	Sidewalk on one side	Lafayette
Pine Ln	Mulberry Dr to Cypress Ln	Sidewalk & Trail	Lafayette
Rome Dr	Creasy Ln to Courtland Ave	Sidewalk on both sides	Lafayette
CR 500N	County Farm Rd to CR 75E	Sidewalk on one side	WL and County
Salisbury St	CR 500N to Sinclair Dr	Sidewalk & Trail	WL and County
SR 25/38	Maple Point Dr to Creasy Ln	Sidewalk on both sides	INDOT
SR 25/38	Creasy Ln to Lighthouse Ave	Sidewalk on both sides	INDOT
SR 25	SR 25/38 (Main) to SR 25 (Teal)	Sidewalk on both sides	INDOT
US 52	SR 25 (Teal) to Maple Point Dr	Sidewalk on both sides	INDOT
US 52	Maple Point Dr to Creasy Ln	Sidewalk on both sides	INDOT
US 52	Nighthawk Ln to Klondike Rd	Sidewalk & Trail	INDOT

<sup>1</sup>The listed facilities are in addition to existing and recommended facilities in Lafayette's, West Lafayette's and Purdue's Plans, the Farm Heritage Trail Plan and the US 52 Corridor Study. Facility recommendations listed as Trail/Sidewalk are included in both the list of recommended trails as well as pedestrian facilities.

**Table 11, Recommended Trail Projects <sup>1</sup>**

<b>Route/Road</b>	<b>Location</b>	<b>Facility Type</b>	<b>Jurisdiction</b>
<b>Short Range (&lt;10 years)</b>			
South 18 <sup>th</sup> St	Veterans M.P. to Wea Ridge M.S.	Trail & Sidewalk	Lafayette
Greenbush Ave	Erie St to Elmwood Ave	Trail & Sidewalk	Lafayette
Happy Hollow Rd	Soldiers Home Rd To N River Rd	Trail & Sidewalk	West Lafayette
Lindberg Rd	Northwestern Ave to Salisbury St	Trail	West Lafayette
Soldiers Home Rd	Happy Hollow Rd to Kalberer Rd	Trail, Sidewalk & Bike Lane	West Lafayette
Soldiers Home Rd	Kalberer Rd to CR 75E	Trail, Sidewalk & Bike Lane	West Lafayette
Yeager Rd	US 52 to Kalberer Rd	Trail & Sidewalk	West Lafayette
Lindberg Rd	Klondike Rd to Cousteau Dr	Trail & Sidewalk	County
Lindberg Rd	McCormick Ln to Klondike Rd	Trail & Sidewalk	County
Klondike Rd	Lindberg Rd to US 52	Trail & Sidewalk	County
State St (SR 26)	Rel. US 231 to Airport Rd	Trail & Sidewalk	County
Cherry Ln Ext.	US 231 to West of US 231	Trail & Sidewalk	County
SR 25	S 4 <sup>th</sup> St to Old US 231	Trail & Sidewalk	INDOT
SR 25	S 4 <sup>th</sup> St to 9 <sup>th</sup> St	Trail & Sidewalk	INDOT
<b>Medium Range (10-20 years)</b>			
State St & 26 <sup>th</sup> St	18 <sup>th</sup> St to Teal Rd	Trail & Sidewalk	Lafayette
South 9 <sup>th</sup> St	Twyckenham Blvd to City Limits	Trail & Sidewalk	Lafayette
South 9 <sup>th</sup> St	Ortman n to City Limits	Trail & Sidewalk	Lafayette
McCormick Rd	Lindberg Rd to Cherry Ln	Trail	County
CR 900S	Cole Ele. To Farm Heritage Trail	Trail	County
North 9 <sup>th</sup> St Rd	US 52 to Swisher Rd	Trail	County and Lafayette
CR 75E	Soldiers Home Rd to CR 500N	Trail, Sidewalk & Bike Lane	WL and County
The Orchard Trails	Three Connections to Subdivisions	Trail	Private
Duncan Rd	Sagamore Pkwy. to N 9 <sup>th</sup> St	Trail	Lafayette

**Table 11, Recommended Trail Projects <sup>1</sup> (continued)**

<b>Route/Road</b>	<b>Location</b>	<b>Facility Type</b>	<b>Jurisdiction</b>
<b>Long Range (20-30 years)</b>			
CR 400S	9th to Soccer Fields/Trail	Trail & Sidewalk	Lafayette
Ortman Ln	Poland Hill Rd to Cromwell Ln	Trail & Sidewalk	Lafayette
South 4 <sup>th</sup> St.	Montefiore St to SR 25	Trail & Sidewalk	Lafayette
Elston Rd	SR 25 to Old Romney Rd	Trail & Sidewalk	Lafayette
Concord Rd	SR 25 to Maple Point Dr Ext.	Trail & Sidewalk	Lafayette
Stones Crossing Link	Ensley St to Walmart	Trail	Lafayette
Main St	McCarty Ln to SR 25	Trail & Sidewalk	Lafayette
Pine Ln	Mulberry Dr to Cypress Ln	Trail & Sidewalk	Lafayette
Sagamore Parkway	Underwood St to Duncan Rd	Trail	Lafayette
Old US 231	Creekview Dr to CR 500S	Trail & Sidewalk	County
CR 500S	Admirals Pt to Snowberry Ln	Trail & Sidewalk	County
CR 500/510S	18 <sup>th</sup> St to Snowberry Ln	Trail & Sidewalk	County
McCutcheon Link	Old US 231 to Proposed Trail	Trail	County
South 9 <sup>th</sup> St.	City Limits to Red Oak Ln	Trail & Sidewalk	County
South 9 <sup>th</sup> St.	Red Oak Ln to CR 510S	Trail & Sidewalk	County
South 18 <sup>th</sup> St.	Wea Ridge M.S. to CR 510S	Trail & Sidewalk	County
CR 430S	18 <sup>th</sup> St to existing Trail	Trail & Sidewalk	County
CR 550E	Lux Blvd to SR 26	Trail & Sidewalk	County
CR 550E	SR 26 to McCarty Ln	Trail & Sidewalk	County
McCarty	CR 550S to SR 26	Trail	County
Stable Dr.	South Brookfield Dr to School	Trail & Sidewalk	Developer/County
Salisbury	Kalberer Rd to Sinclair Dr	Trail, Sidewalk & Bike Lane	WL and County
Sagamore P. / US 52	Duncan Rd to Nighthawk Ln	Trail	Lafayette, WL, INDOT
US 52	Nighthawk Ln to Klondike Rd	Trail & Sidewalk	INDOT
SR 26	Cary Camp to McCarty Ln	Trail	INDOT, County
Veterans M. P.	Haggerty Ln to McCarty Ln	Trail	Lafayette & County
Veterans M. P.	US 52 to SR 25/38	Trail	Lafayette & County
Prophetstown Rd	N. River Rd to Swisher Rd	Trail	State & County
Soldiers Home Rd	CR 75E to North River Rd	Trail, Sidewalk & Bike Lane	W. Lafayette & County
Swisher	N 9 <sup>th</sup> St to Prophetstown Gate	Trail	State & County
Stockwell Trail	Cole Elementary to Farm H. Trail	Trail	County
Delphi Connection	Prophetstown Park to Delphi	Trail	County

<sup>1</sup> The listed facilities are in addition to existing and recommended facilities in Lafayette's, West Lafayette's and Purdue's Plans, the Farm Heritage Trail Plan and the US 52 Corridor Study. Facility recommendations listed as Trail/Sidewalk are included in both the list of recommended trails as well as pedestrian facilities.

**Table 12, Recommended Bicycle Facilities <sup>1</sup>**

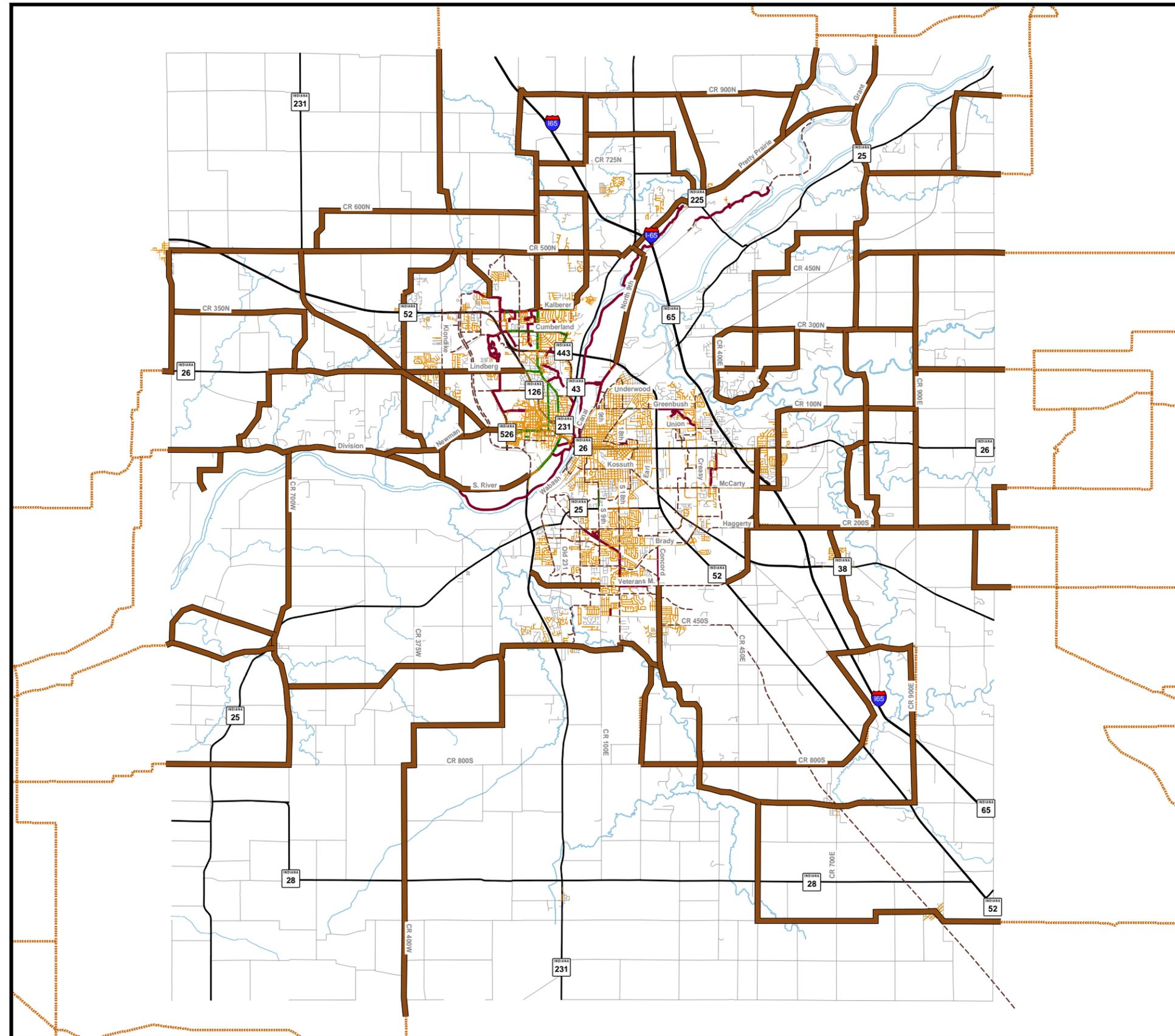
<b>Route/Road</b>	<b>Location</b>	<b>Facility Type</b>	<b>Jurisdiction</b>
<b>Immediate Action Plan</b>			
9th St.	Kossuth St to Tippecanoe St	Shared Road-Sharrow	Lafayette
South 18th St.	Ditch to Center St	Bike Lane	Lafayette
18th St.	Center St to Erie St	Shared Road-Sharrow	Lafayette
North 18th St.	Erie St to Schuyler Ave	Bike Lane	Lafayette
Veterans M.P.	US 231 to South 9th St	Shared Road-Signage (STR)	Lafayette
Twyckenham/Brady Ln	9th St to US 52	Shared Road-Sharrow	Lafayette
Hyatt Dr	18th St. to 22nd St	Bike Lane	Lafayette
Earl Ave	Hyatt Dr to Union St	Bike Lane	Lafayette
Ferry St	2nd St to Earl Ave	Bike Lane	Lafayette
Hedgewood Dr	Union St to Greenbush St	Shared Road-Sharrow	Lafayette
Greenbush St	9th St to Sagamore Pkwy	Shared Road-Sharrow	Lafayette
Veterans M.P.	US 52 to SR 26	Shared Road-Signage (STR)	Lafayette & Co
Wea School Rd	S. 18th St. to CR 800S	Shared Road-Signage (STR)	County
Concord Rd	Vet. M.P. to Wea School Rd	Shared Road-Signage (STR)	County
Wabash Ri Bridges	South, Columbia & Harrison Br	Bike Lane Feasibility Analysis	County
Lindberg Rd	McCormick Ln to Klondike Rd	Shared Road-Signage (STR)	County
Lindberg Rd	Klondike Rd to SR 26	Shared Road-Signage (STR)	County
State St (SR 26)	Rel. US 231 to Airport Rd	Shared Road-Signage (STR)	County
Klondike Rd	Lindberg Rd to SR 26	Shared Road-Signage (STR)	County
Newman/CR 300W	US 231 to South River Rd	Shared Road-Signage (STR)	County
CR 500S	Old US 231 to CR 150W	Shared Road-Signage (STR)	County
CR 500S/CR 510S	Old US 231 to Wea School Rd	Shared Road-Signage (STR)	County
McCarty Ln	Veterans M.P. to CR 550E	Shared Road-Signage (STR)	County
CR 400E	Clegg Gardens to CR 300N	Shared Road-Signage (STR)	County
North 9th St Rd	Duncan Rd to Burnett's Rd	Shared Road-Signage (STR)	County
Soldiers Home Rd	Kalberer Rd to CR 75E	Shared Road-Signage (STR)	County
CR 75E	Soldiers Home Rd to CR 500N	Shared Road-Signage (STR)	County
Salisbury St	Kalberer Rd to CR 600N	Shared Road-Signage (STR)	County
Morehouse Rd	Trail to CR 500N	Shared Road-Signage (STR)	County
SR 26	Newman Rd to CR 75W	Shared Road-Signage (STR)	County
South River Rd	Rel. US 231 to Division Rd	Shared Road-Signage (STR)	County
Division Rd	Newman Rd to County Line	Shared Road-Signage (STR)	County
Sharron Chapel Rd	Lindberg Rd to SR 26	Shared Road-Signage (STR)	County
<b>Short to Medium Range (10-20 Years)</b>			
South 9th St	CR 510S to Kossuth St	Bike Lane	Lafayette
North 9th St	Tippecanoe St to Greenbush Ave	Bike Lane	Lafayette
Soldiers Home Rd	Happy Hollow Rd to Kalberer Rd	Bike Lane, Sidewalk and Trail	West Lafayette
Soldiers Home Rd	Kalberer Rd to CR 75E	Bike Lane, Sidewalk and Trail	West Lafayette
Northwestern Ave	Stadium Ave to Yeager Rd	Bike Lane	West Lafayette
Salisbury St	Kalberer Rd to Sinclair Dr	Bike Lane, Sidewalk and Trail	W. Lafayette & Co
CR 75E	Soldiers Home Rd to CR 500N	Bike Lane and Sidewalk	W. Lafayette & Co
<b>Long Range (20-30 Years)</b>			
Soldiers Home Rd	CR 75E to North River Rd	Bike Lane, Sidewalk and Trail	West Lafayette

<sup>1</sup> The listed facilities are in addition to existing and recommendations found in Lafayette's, West Lafayette's and Purdue's Plans, the Farm Heritage Trail Plan and the US 52 Corridor Study.

<sup>2</sup> STR=Share The Road, see Figure 36.

Figure 36

# Share the Road Signed Routes



**Proposed Routes**  
— Share the Road Signed Routes  
- - - WRCC Routes

**Existing Facilities**

- Trails
- Bike Lanes
- Sidewalks

0 1.5 3 4.5  
Miles

Prepared by the Area Plan Commission of Tiptecanoe County, May 25, 2012

Information about the location of existing trails, sidewalks, sidepaths and bike lanes is from aerial photography taken in 2010

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### **3. Transit Recommendations**

#### **a. The Five-Year Strategic Plan**

CityBus adopts a short range strategic plan every five years. The current plan was adopted in February 2008 and will be updated in the near future.

The Strategic Plan is comprehensive. It begins with a broad review and inventory of existing conditions and issues. The current service, operating statistics, performance data and studies were assembled and evaluated. It also looked at the operating environment including community demographics, growth and development, the regional road network, planned road projects, parking and Purdue University. The results included stakeholder input and a peer review.

The second phase was a “SWOT” analysis - strengths, weaknesses, opportunities and threats. The review shows that CityBus has many strengths, including a stable staff, a number of operating efficiencies, good community relationships, a very positive image (internally and externally) and stable funding. Most of the agency’s identified weaknesses are due to limited resources and lack of a strategic vision.

A new mission statement was created along with objectives and needed actions. The new mission statement for CityBus is:

*“CityBus is a proactive community partner. The organization strives to improve the quality of life by (1) operating safe, reliable and environmentally friendly transit service, and (2) partnering in local economic development activities. With employees who take pride in their work, CityBus provides excellent customer service and offers efficient, convenient access to destinations throughout Lafayette and West Lafayette.”*

The goals identify what CityBus needs to accomplish and represent its primary concerns. For each of the seven goals the Strategic Plan identifies at least one measurable objective, and for each objective identifies a variety of actions to be taken.

The Goals identified in the 2008 Strategic Plan are:

- Address the mobility needs of transit-dependent persons in the CityBus service area,
- Provide CityBus service in a friendly, courteous and professional manner,
- Increase the accessibility and convenience of public transportation in the CityBus service area,
- Integrate transportation, economic development and land use planning in the Greater Lafayette area,
- Operate an environmentally sound transit system,
- Maintain facilities that meet the day-to-day operating needs of CityBus,
- Provide efficient and effective transit service.

In the Plans final phase identified actions were refined into a series of Action Plans. The Action Plans represent a wide range of projects and programs. Each action includes a discussion of its proposed activity, its strategic value, key implementation steps and considerations, responsibility, costs, and funding opportunities. Each of the 43 Action Plans was assigned a priority.

The Strategic Plan reported that CityBus provides a very high quality transit service to many portions of the service area, has a dedicated staff providing quality service, has an excellent public image, provides good transit service, and thrives on innovation and being a unique type of transit provider. It also recommends areas of improvement, in particular the need for a more aggressive bus replacement program to reduce operating cost.

#### **b. Long-Range Discussion**

Looking beyond five years for any transit system is challenging and difficult. There are numerous variables which make it difficult to predict their 10-20 year impact. Even minor changes can have profound unforeseen circumstances including a significant reduction or elimination of service.

This discussion of long-range issues looks at three of those variables. The first, funding, is the most important. The second is operations and associated expenses. The final consideration is future land use development. This community will continue to grow in both population and jobs based on the

*Comprehensive Land Use Plan.* The location of new homes and jobs will affect operations, bus routes and efficiency.

#### 1) Funding

In order to continue operation at its current level, continuous and predictable funding is essential. At this time there is significant funding uncertainty at all government levels.

##### a) Federal Funding & Legislation

CityBus is presently funded thru the Federal Highway Trust Fund, more specifically, the Mass Transit Account. These funds come from a tax on motor fuel paid when purchasing gasoline. The current tax rate is 18.4 cents per gallon which has not increased since 1993.

The Highway Trust Fund is not taking in as much as it is paying out. Over several decades the amount of funds collected has steadily declined. One reason is inflation. The dollar today is worth less than in 1993. Increased fuel efficiency is another reason. Cars today are more efficient than in the past. All of these reasons combine to create a shortfall in the Highway Trust Fund. The trust fund recently had to be infused with cash from the general fund twice and will need another unless something changes.

Another reason why transit systems may see reduced federal funding is that transit funding is part of the national debate to find ways to reduce the national debt.

The last federal transportation act, SAFETEA-LU, expired on September 30, 2009. Continuing resolutions have funded all federal transportation programs since. Congress has yet to act on a new long term Federal authorization adding to funding uncertainty for CityBus.

##### b) State Funding & Legislation

CityBus received funding from the former Public Mass Transportation Fund (PMTF). This fund received 0.67% of the state's sales and use tax. In 2011, the State eliminated this 30 year old funding program. Transit funding is now just a line item in the state's general fund and INDOT has the discretion to fund public transportation. Funding for 2012 remained in place but with 2013 funding frozen at the 2012 levels. While transit systems will likely continue to receive state funding, it will not be based on performance measures such as passenger trips, total vehicle miles and locally derived income. With the elimination of PMTF transit systems no longer have a predictable and stable source of state funding.

##### c) Local Funding

Local property taxes support CityBus and provide additional financial stability. The State of Indiana has enacted a property tax cap limiting the amount of property taxes collected from landowners. The benefit to property owners is that capped taxes will not exceed a percentage of their property's assessed value. The tax cap was set to 1% of property value for homesteads, 2% for other residential property and farmland, and 3% for all other property.

A report by the State of Indiana's Department of Local Government Finance, titled *Impact of the Property Tax Caps, 2011* (August 5, 2011) shows how local governments were affected by the tax cap. In Tippecanoe County, 3,501 homesteads (10%) received a tax credit, or a reduction in taxes. Even more properties in the "other residential and farmland" category, (7,650 or 21%), received a tax credit. There was no tax cap relief for owners in the "other property" category.

Landowners in Tippecanoe County saw savings of over \$5 million. Owners of homesteads saved \$882,508.24, and owners of other residential properties and farmland saved \$4,415,715.47.

Property tax caps reduced CityBus funding by more than \$96 thousand. All local government agencies in Indiana rely on property taxes as their main source of funding. Property tax caps reduce the amount of taxes local jurisdictions can collect. While the loss of revenue appears small for CityBus it does have an impact. Wider loss from local, state and federal sources easily leads to cuts in service, and reduction in the workforce.

## 2) Operations

CityBus provides superior transportation service to the citizens in our community. To maintain this level of service it needs to be on time, dependable and frequent while at the same time managing costs. Cost increases affect service. This section discusses several factors that influence costs.

### a) Route Efficiency & Alternatives

CityBus staffs continually monitor the performance of all routes. They look at established performance measures plus other route specific factors that impact service. Underperforming routes are evaluated, solutions developed and implemented. Operating costs are reduced by improving route performance. This type of review is one of CityBus' strength.

CityBus has a hub and spoke route system. Continued growth can make some routes too long and no longer support acceptable headways. There are already some routes not part of the hub and spoke system and do not travel downtown. In addition to these cross town routes, a possible alternative is satellite centers. These centers are similar to the downtown transfer. With satellite centers new routes can extend into developing areas. Express routes can then be used to connect the downtown transfer center to the hubs.

Another option is to operate an inner or small loop route. This is only effective when development is dense and ridership is high. Service would be frequent and headways short. The ideal location for this type of service is on the Purdue Campus using routes that are shorter than the existing campus loops.

### b) Fuel

Approximately fourteen percent of CityBus' budget is dedicated to diesel fuel. CityBus purchases fuel at a reduced cost but prices fluctuate and CityBus is subject to changes that affect everyone.

CityBus has been proactive in minimizing fuel costs. It monitors prices daily in order to get the best price. It also monitors the performance of each route and makes adjustments when opportunities arise to improve efficiency.

CityBus has also purchased hybrid buses to reduce fuel consumption since 2006. Hybrid buses use both electricity and diesel fuel. Batteries store energy and recharge when buses decelerate. When demand for power exceeds battery capacity the diesel engine provides extra power. Currently, 27% of the fleet are hybrid buses. Hybrid buses should continue to be seriously considered in future bus replacement.

Alternative fuels also need to be investigated. The most promising is compressed natural gas or CNG. It is significantly less expensive and would result in a reduction in fuel costs. CNG is a cleaner burning fuel that emits 80% less ozone precursors and over 95% fewer particulates according to the US EPA.

Converting the fleet to CNG requires a substantial initial investment. Bus engines, ignition systems and new fuel tanks are required and can cost \$50,000-\$60,000. Additionally, CNG fueling stations are larger and more complex, can cost \$1 million-\$1.5 million and would probably require a new site. A detailed CNG analysis is needed to assess the full costs and benefits.

### c) Fleet Replacement

Timely bus replacement is critical to providing quality service and controlling cost. Buses have a usable life span of 12-15 years. Routine replacement is necessary because buses average over 40,000 miles each year. Fleet replacement will remain critical to the quality of service provided by CityBus.

CityBus has a fleet of 73 full size fixed route buses, manufactured between 1998 through 2011. The average fleet age is 8.5 years as of March 2012. The majority are in good to excellent shape. However, 39% have exceeded their useful life span and are in declining condition. The older buses need to be replaced.

CityBus has purchased buses retired from other transit companies to meet service demands. These buses exceeded their 12 year recommended life when placed into service by CityBus. They account for 21% of the current fleet. CityBus' extensive and proactive maintenance program allows the older buses to be cost effective. Critical elements are monitored and parts are examined and replaced as needed. It is essential that this maintenance program continue.

CityBus has adopted a bus fleet management plan know as the “CityBus Vehicle Replacement Schedule.” This delineates a timeline for the replacement of buses over a fifteen-year period. CityBus has not been able to meet its planned bus replacement schedule because of funding shortfalls. There is currently a backlog of thirty-one buses to have been replaced by 2012.

In 2011, five new buses were added to the fleet. Three were hybrid articulated buses while the other two were standard 40’ low floor buses. CityBus has submitted a “State of Good Repair” application for federal funds to replace 12 buses. If approved, these new buses will lower the average fleet age to 7.2 years.

#### d) Facilities

CityBus facilities include the operations, maintenance and storage facilities on Canal Road, a downtown transfer station and two child-care facilities. All buildings need proper maintenance and updating. Maintenance, updating and facility expansion translate to additional costs. Additional federal, state or local funds will be needed when any of the facilities require updating or expansion.

#### e) Health Insurance

The 2<sup>nd</sup> largest expenditure for employees is the cost of health insurance after salaries for staff and drivers. The 2011 increase was kept down (3.2%), but the average annual increase for the previous 4 years was almost 20%.

### 3) Land Use Development

Our community is fortunate to be economically healthy and growing. The 2040MTP forecasts that both will continue to grow. For CityBus the location of these growth areas has a direct relationship to its operating costs. Distant development equals greater cost. It is simply not feasible to provide transit service to all areas that are distant from the urban core.

The number of people who live and work within a particular area also influence operating costs. It is difficult and costly to serve areas that have low densities. CityBus can provide service at a lower cost and be most efficient where development is dense and compact. APC continues to recommend residential densities at all levels in growth areas. **Figure 2** shows the population density for Tippecanoe County.

The 2040MTP forecasts compact development. New development needs to be located near existing transit routes and existing development to make service feasible. Service can not automatically be extended when a new development is built.

## 4. Environmental Sustainability

The ability of our community to maintain its physical and social infrastructure into the future without compromising our quality of life depends on the impacts of the decisions we make today. Projects recommended in the 2040MTP will affect the community for an extended period of time. Negative consequences need to be avoided, minimized or mitigated. The 2040MTP addresses the sustainability of our decisions in several ways. The prior sections discussed SAFETEA-LU and Environmental Justice is one dimension of how the 2040MTP addresses social and environmental impacts.

Appendix 3 contains an extensive environmental analysis of the potential social, cultural and environmental impacts of the recommended highway projects. While not replacing the detailed Environmental Impact Statement requirements of the National Environmental Policy Act it does provide a preliminary assessment at a planning level of some impacts needing to be address in the EIS for each project. The analysis includes the project’s impact on several social and environmental factors using proximity analysis and tabulation. In Appendix 3 each factor is discussed, followed by a list of projects that may have a potential impact on that social or environmental factor.

## L. Financial Plan

Obtaining the financial resources to implement the projects in the Plan will be the greatest challenge facing the community’s transportation needs. As listed in Table 13, the total estimated year of construction cost of all highway projects is over \$1.6 billion dollars. Proposed State Highway needs make up 57% of the total and improvements to our local street and highway network account for 43% (this does not include road construction costs to be borne by private developers as part of the cost of new development).

One of the primary funding sources for improvements to the transportation system is the US DOT. With uncertainties in federal funding beyond SAFETEA-LU we can only estimate the nature and amount of federal funding available over the next 28 years. The 2040MTP is fiscally constrained (**Table 13**) because it anticipates requesting Federal STP funds within a range of what this community might reasonably expect to receive through 2040 (see Appendix 8 for calculation methodologies that were reviewed by FHWA and Appendix 11 for complete list of prioritized local projects ).

**Table 13, Fiscally Constrained Federal Aid Project List**

<b>Project</b>	<b>Location</b>	<b>Priority</b>		<b>CN Cost Est.</b>	<b>80% CN Est.</b>
Bicycle, Pedestrian and Trail Facilities				13,800,000	11,040,000
Earl Ave/ 22 <sup>nd</sup> St	South St to Teal Rd	Laf	High	6,140,000	4,912,000
Happy Hollow Rd	North River Rd to US 52	WL	In TIP	4,350,000	3,480,000
Klondike Rd	US 52 to Lindberg Rd	Co	In TIP	7,300,000	5,840,000
Lindberg Rd	McCormick Rd to Klondike Rd	Co	In TIP	3,030,000	2,424,000
Lindberg Road Rd	Northwestern Ave to Salisbury St	WL	High	1,280,000	1,024,000
Soldiers Home Rd	US 52 to Kalberer Rd	WL	In TIP	8,150,000	6,520,000
South St	Earl Ave to Sagamore Pkwy	Laf	High	2,420,000	1,936,000
Northwestern Ave	Lindberg Rd to Grant St	WL	High	4,890,000	3,912,000
State St (SR 26)	Airport Rd to Rel. US 231	Co	High	3,650,000	2,920,000
River Rd	RR Overpass to North City Limits	WL	High	100,000	80,000
Signal Coordination	Throughout City	WL	High	440,000	352,000
Soldiers Home Rd	Kalberer Rd to City Limits	WL	In TIP	9,800,000	7,840,000
McCarty Ln	Main St to Sagamore Pkwy	Laf	High	690,000	552,000
Park East Blvd	Haggerty Ln to SR 25/38	Laf	High	1,500,000	1,200,000
South 9 <sup>th</sup> St	Twyckenham Blvd to Vet. M. P.	Laf	High	6,780,000	5,424,000
Yeager Rd	US 52 to Cumberland Ave	WL	Medium	2,470,000	1,976,000
Cumberland Ave	Salisbury St to Soldiers Home Rd	WL	Medium	8,600,000	6,880,000
CR 450S	Concord Rd to US 52	Co	Medium	10,370,000	8,296,000
CR 430S	South 18 <sup>th</sup> St to Concord Rd	Co	Medium	3,900,000	3,120,000
Greenbush St	Erie St to Sagamore Pkwy	Laf	Medium	4,470,000	3,576,000
North 9 <sup>th</sup> St Rd	Sagamore Pkwy to Swisher Rd	Co	Medium	6,720,000	5,376,000
Concord Rd	Veterans M. P. to CR 450S	Co	Medium	8,840,000	7,072,000
Lindberg Rd	Klondike Rd to SR 26	Co	Medium	8,290,000	6,632,000
Klondike Rd	Lindberg Rd to SR 26	Co	Medium	1,800,000	1,440,000
Park East Blvd	McCarty Ln to SR 38	Laf	Medium	15,960,000	12,768,000
Poland Hill Rd	Teal Rd to Beck Ln	Laf	Medium	3,600,000	2,880,000
Veterans M. P.	US 52 to SR 38	Laf	Medium	12,730,000	10,184,000
South 18 <sup>th</sup>	CR 430S to CR 510S	Laf	Medium	8,510,000	6,808,000
CR 350N	Morehouse to City Limits	Co	Medium	790,000	632,000
Kossuth	Sagamore Pkwy to Park East	Laf	Medium	510,000	408,000
<b>Total Project Cost</b>				<b>\$171,880,000</b>	<b>\$137,504,000</b>
<b>Reasonably Available From The Federal Highway Trust Fund</b>					<b>\$138,054,655</b>

## **M. Performance Measures**

Performance measures are increasingly being used to gauge progress toward meeting objectives. Performance measures are ideally an outcome from an effort that is: specific, measurable, achievable, realistic, and have a target date. However, they can also be a simple desired output from a task and are usually a mix of outcomes and outputs. The following performance measures will be used to assess progress toward our vision and objectives:

### **1. Objective: Improve Sustainability (the long term maintenance of our economy, environment and social institutions)**

Performance Measures:

- a. Reduce single vehicle occupancy to 2001 levels (1.13 persons/vehicle from 1.1 in 2010) within 10 years.
- b. Upgrade or install sidewalks to Public Rights-of-Way Accessibility Guidelines (PROWAG) standards within a quarter mile of all transit stops by 2020.
- c. Develop the procedure manual to implement the Complete Streets Policy within six months of its adoption.
- d. Allocate 10% of the MPO's STP funds to bicycle and pedestrian projects that are not part of a jurisdiction's road construction and reconstruction projects.
- e. Update the Bicycle and Pedestrian Plan by 2014.
- f. Achieve increased housing density and mixed-use development near Purdue campus areas and near downtown neighborhoods close to the new CityBus transfer station.
- g. Annually allocate all APC UPWP Section 5303 funding resources to provide program assistance to CityBus.

### **2. Objective: Preserve the capacity and improve efficiency of existing facilities**

Performance Measures:

- a. Reduce vehicle miles traveled per capita by 2% by 2020
- b. Maintain existing peak period travel times on arterials by 2020.
- c. Ensure all scheduled traffic counts are taken and information published within 30 days of receiving count data from LPAs.
- d. Expand the advanced traffic signal management system beyond the City of Lafayette by including all signals in West Lafayette and unincorporated Tippecanoe County by 2020.
- e. Adopt an Access Management Plan by 2015.
- f. Develop a tracking system for traffic crash clearance times in conjunction with public safety agencies.

### **3. Objective: Enhance mobility and accessibility**

Performance Measures:

- a. Allocate 10% of the MPO's STP funds to bicycle and pedestrian modes on roads not included in LPA construction and reconstruction projects.
- b. Annually allocate all APC's UPWP Section 5303 funding resources to provide program assistance to CityBus.
- c. Update Bicycle and Pedestrian Plan by 2014.
- d. Expand the advanced traffic signal management system beyond the City of Lafayette by including all signals in West Lafayette and unincorporated Tippecanoe County by 2020.
- e. Achieve increased housing density and mixed use development on near-Purdue campus areas and near downtown neighborhoods close to the new CityBus transfer station.
- f. Update the Thoroughfare Plan by 2013.

### **4. Objective: Improve the safety and security of all road users**

Performance Measures:

- a. Work with local public safety agencies to reduce severe and fatal crashes by 5% by 2020.
- b. Create crash analysis report within 30 days of final crash report submission to ISP.
- c. Work with local public safety agencies to address high crash locations
- d. Ensure that projects utilize current best practice design standards to minimize conflicts between all modes of transportation
- e. Annually allocate all APC UPWP Section 5303 funding resources to provide program assistance to CityBus.
- f. Reduce bicycle and pedestrian crashes by 10% by 2020

#### 5. Objective: Reduce the Effects of Climate Change

##### Performance Measures:

- a. Implement mitigation projects developed in each 5 year Multi-Hazard Mitigation Plan.
- b. Annually allocate all APC UPWP Section 5303 funding resources to provide program assistance to CityBus.
- c. Update Bicycle and Pedestrian Plan by 2014.
- d. Increase percentage of the population within a half mile of a bicycle or pedestrian facility.
- e. Increase percentage of the population within a quarter mile of a transit route.
- f. Achieve increased housing density and mixed use development near Purdue campus areas and near downtown neighborhoods close to the new CityBus transfer station.
- g. Advocate for extensive landscape plans on public highway projects and within subdivisions.

### **N. Management Systems, TIP and Thoroughfare Plan**

There are several infrastructure management system tools we use in the transportation planning process in addition to the *2040MTP*. Two of these are the *Transportation Improvement Program (TIP)* and the *Thoroughfare Plan*. Both help implement the *2040MTP*.

A transportation plan takes a long-range, system-wide approach while management systems are short-range plans for maximizing system efficiency, and are an adjunct to the transportation plan. Projects from infrastructure management systems complement long range plans with smaller, short-range projects that emphasize a more limited scope and designed to make the system more efficient.

Lafayette, West Lafayette and Tippecanoe County have roadway management systems that seek to preserve existing transportation facilities through maintenance and repair programs as well as to utilize existing transportation facilities more efficiently (e.g. signal coordination, pavement marking, and intersection improvements). Additionally, Tippecanoe County has a bridge inventory and management system. All jurisdictions are now adding Americans with Disabilities Act needs as part of their roadway management systems. All use their systems to document and establish priorities.

CityBus has adopted several strong system management practices that promote safety and mobility and more efficiently use their existing transportation infrastructure. Ridership increases are evidence that their aggressive programs of fleet maintenance and acquisition, marketing, schedule adherence and strategic planning contribute to a system that successfully provides an alternative to the automobile.

The next step, after adoption of *2040MTP*, is for the MPO to focus on each of its management systems and capital improvement plans. The TIP is a capital budgeting tool that establishes an ongoing multi-year timetable for funding transportation improvements. These projects come from both the transportation plan and other local management systems. The TIP includes all projects whether or not they receive USDOT funding.

The TIP is prepared for adoption every one or two years corresponding with the upcoming fiscal year. It specifies a timetable, funding sources, and the agency responsible for completing each project listed. These projects may originate from any one of the nine implementing agencies: the Cities of Lafayette and West Lafayette, Dayton, Battle Ground, Clarks Hill, Tippecanoe County, INDOT, CityBus and the Purdue Airport. This community receives an annual allotment of federal funds for approved projects.

The *Thoroughfare Plan* is another element of the adopted *Comprehensive Plan for Tippecanoe County*. It combines the classification of roads (freeways, arterials, collectors and locals) with specific design standards for each classification. As such, it links the transportation plan to the *Unified Subdivision Ordinance of Tippecanoe County* and includes design standards required of project developers.

In the *Thoroughfare Plan* roads are classified as either urban or rural as defined by the US Census Bureau's Urbanized Area Boundary. Urban and rural roads are then further classified as being residential, nonresidential or arterial. There are three types of residential roads (place, local road, collector), two types of nonresidential roads (local road, collector) and three types of arterials (secondary, primary and divided primary). For each type, standards are established regarding minimum right-of-way width, minimum pavement, sidewalks, curb and gutter, side ditch and shoulder widths, maximum grade and characteristics dealing with the geometry of curves, cul-de-sacs and connectivity.

The *Thoroughfare Plan* ensures that local governments and private developers will build new roads and widen existing ones to accepted standards and in accord to the Complete Streets Policy, and helps implement the transportation plan.

The most recent *Thoroughfare Plan* was adopted in 1981 and amended seven times since. An update to the *Thoroughfare Plan* is a top priority for the MPO as are revisions to the community's Functional Class and the Urbanized Area Boundary.