# THE GREEN HILLS
# *REGIONAL TRANSPORTATION PLAN*

2011

Produced by
the Green Hills Regional Planning Commission Transportation Advisory Committee
under the aegis of an agreement between
the Missouri Department of Transportation
and
the Missouri Association of Councils of Government

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# CHAPTER 1

## Introduction

The Green Hills Regional Planning Commission, working on behalf of our local governments, now has a real and meaningful role to play In Transportation Planning. The development and implementation of the Missouri Department of Transportation's *Planning Framework* has made us a partner at the decision making table.

As we work in partnership with the Missouri Department of Transportation, we now have the opportunity to offer new and different viewpoint that can be brought to bear on transportation decisions; as local users of the system, we are able to offer unique perspectives previously missing from the process. With this opportunity also comes responsibility. As a partner in the decision making process we will also share the responsibility of the final outcome. We must represent the views or our local elected officials and their constituents, and bring to the forefront information that is necessary for those officials, TAC Board Members, and staff to make sound, prudent, and defendable recommendations.

To date, the Regional Planning Commission– through its' partnership with the Missouri Department of Transportation – has been focusing on the State Highway System and prioritizing those needs and projects. That work will continue, but to better serve all transportation customers, this emphasis will be expanded to consider all modes of transportation and all systems, including those owned and maintained by counties and municipalities. It is important to consider how the different systems work together, now and in the future.

The Missouri Department of Transportation, through this effort, is providing system management data and mapping information to the Planning Commission. The intent is for the Planning Commission to analyze this information from a

regional perspective, develop different scenarios using the data that may generate new information, consider issues that may have been overlooked in the past and consider local perspectives when deciding what information to analyze. It is the prerogative of the Planning Commission, through its TAC board, to involve local officials throughout the region in determining what information is needed, and what type of analysis will facilitate the best recommendations for the region.

## Study Organizations

The Green Hills RPC is one of nineteen sister offices operating as part of the Missouri Association of Councils of Government (MACOG) - An organization of sub-state planning and development agencies serving the State of Missouri. The Commission is organized as a voluntary association of local governments whose' duly elected board meets monthly, and has retained a staff of professionals who work on projects intended to foster improved quality of life throughout all communities within the 11 county "Green Hills" region.

In this mission, the Green Hills Regional Planning Commission addresses a broad cross-section of issues, including comprehensive planning; economic development, marketing, industrial park development, operation of revolving loan funds, and coordination with industrial prospects and various agencies and organizations involved In economic development. The Commission routinely deals with infrastructural issues, such as public water supply; sanitary sewage collection and treatment; planning for various modes of transportation, including local streets and roads, highways, airports, and port development. The Commission is also, from time to time, involved in park, recreational and open space planning and issues; development of various ordinances, such as subdivision regulations, zoning ordinances, mobile home park ordinances and the like; coordination of programs on behalf of county and municipal members with state and federal agencies; solid waste planning; hazardous waste planning; storm water damage and flood control, including the National Flood Insurance Program; working for improved educational and training facilities; manpower planning and job training issues; health and health facilities needs; and planning for compatible land usage.

The Commission also prepares grant applications for implementation of various capital improvements and initiation of various programs.

The Commission assists county and municipal government in administration of grants-in-aid ranging from agricultural issues to housing development, and provides of a variety of direct services under an agreed upon basis with member units of government.

The Commission also provides some mapping and drafting services for their memberships.

The prime role of the GHRPC is to provide a technical staff capable of providing sound advice to its membership and the coordination of various planning and infrastructural needs among the various counties and municipalities, as appropriate. The Commission conducts a considerable amount of research as a matter of course in their day-to-day operations and often has a considerable amount of data and information available for use by their members and citizens of the region.

The Green Hills Regional Planning Commissions provides an effective way for local governments to work together to address common problems and to share technical staff for problems that cross border lines or boundaries and need an area wide approach. The Commission also can effectively deliver programs which cannot be afforded on an individualized basis by county and municipal governments, but can be afforded on a collective basis where all share staff and/or resources. The Commission brings an organized and professional approach to addressing a broad range of issues affecting the region.

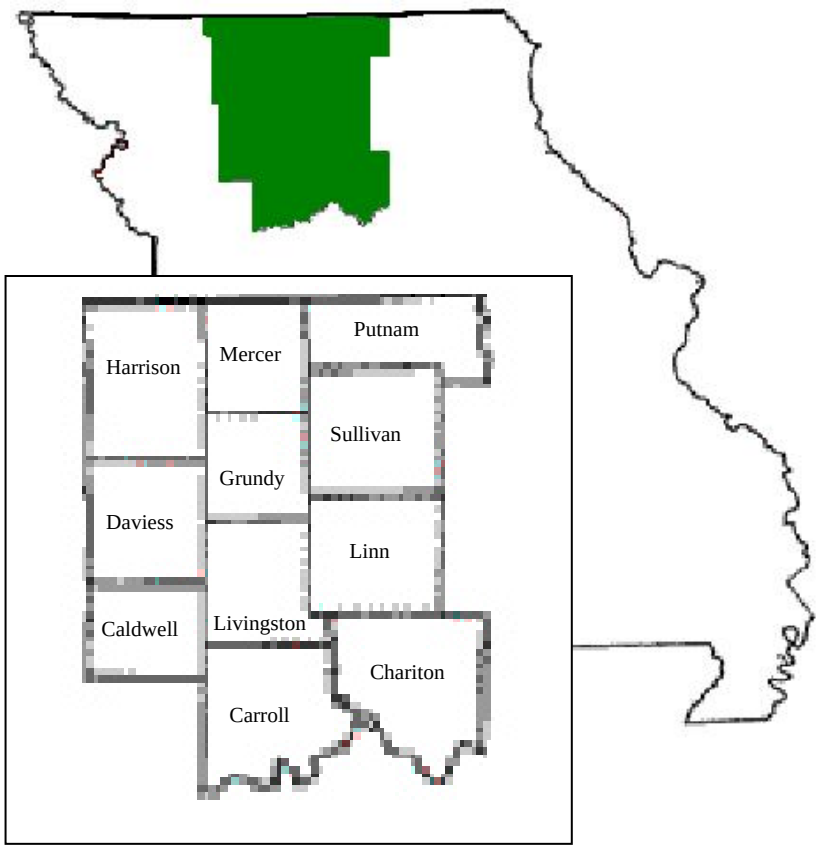
In 1993 the Missouri Department of Transportation chose to employ the Regional Planning Commissions in gathering local Input for their statewide transportation planning efforts. Initially the Regional Planning Commission were required to appoint a Regional Transportation Advisory Committee (TAC) composed of local officials and citizens, to gather general transportation comments and work actively with MoDOT. The success of the initial phase led to the expansion of the RPC planning activities in 1995. The expanded process directed each RPC to develop an annual transportation work program that identified specific transportation planning activities that they would conduct for the department. The additional items included an evaluation process of transportation needs, a public involvement process, development of regional data, and professional staff development. The program was successful in providing transportation information for use in MoDOT's decision making process and has continued through the years to assist with updates to the LRTP and the selection of projects to meet the transportation goals outlined in it.

## TAC Membership Board 2010

| | | |
|---|---|---|
| **Caldwell County** | **Dale Hartley** | **Presiding Commissioner** |
| | **Dale Wallace** | **Administrator, City of Hamilton** |
| | **Dean Hales** | **Citizen, City of Hamilton** |
| **Carroll County** | **Nelson Heil** | **Presiding Commissioner** |
| | **Kim McAuliffe** | **Mayor, Town of Carrollton** |
| | **Debbie Henry** | **Citizen, Town of Carrollton** |
| **Chariton County** | **Tony McCollum** | **Presiding Commissioner** |
| | **James Ramsey** | **City of Salisbury** |
| | **Terry Smith** | **Citizen, City of Brunswick** |
| **Daviess County** | **Danny Heldenbrand** | **Associate Commissioner** |
| | **Zachary Johnson** | **City Administrator, City of Gallatin** |
| | **Mike Grant** | **Citizen, City of Gallatin** |
| **Grundy County** | **Rick Hull** | **Presiding Commissioner** |
| | **Kerry Sampson** | **City Administrator, City of Trenton** |
| | **Phil Hoffman** | **Citizen, City of Trenton** |
| **Harrison County** | **Jack Hodge** | **Presiding Commissioner** |
| | **Bob Wilcoxson** | **Alderman, Village of Eagleville** |
| | **Sabra Hamilton** | **Economic Developer, City of Bethany** |
| **Linn County** | **Randy Wade** | **Associate Commissioner** |
| | **Elizabeth Cupp** | **Manager, City of Marceline** |
| | **Don Walsoworth** | **Citizen, City of Marceline** |
| **Livingston County** | **Tod Rodenburg** | **Associate Commissioner** |
| | **Hugh Mussellman** | **Citizen, City of Chillicothe** |
| | **LH Hinnen** | **Citizen, City of Chula** |
| **Mercer County** | **Clifford Shipley** | **Presiding Commissioner** |
| | **Gerald Holman** | **Citizen, City of Princeton** |
| | **Phyllis Johnson** | **Citizen, City of Mercer** |
| **Putnam County** | **Charlie Fowler** | **Presiding Commissioner** |
| | **Karl Klinginsmith** | **Citizen, City of Unionville** |
| | **James Rhoades** | **Citizen, City of Lucerne** |
| **Sullivant County** | **James Howard** | **Associate commissioner** |
| | **Gary Billington** | **Mayor, City of Green City** |
| | **Robert Wilson** | **Citizen, City of Milan** |

## Study Area

The Green Hills Region of north-central Missouri is composed of Harrison, Daviess, Caldwell, Mercer, Grundy, Carroll, Mercer, Livingston Chariton, Sullivan, and Linn Counties.




Geographically, the region is largely uniform and is predominated by rolling uplands and stream valleys, though in the southernmost counties there are wide stretches of flood plain.

There are several US highways and one major interstate passing through the region, and many hundreds of miles of state maintained asphalt roadways and bridges. There are no major airports, but a number of small private and public access runways, and there are several major railways in the region. There are several minor ports in the counties which border the Missouri River.

## Connection to the Planning Framework

MoDOT understands it cannot independently determine the future of the state's transportation system. Transportation infrastructure is an important part of the state's well-being and it is affected by decisions made in the public and private sectors. MoDOT recognizes it must work with other state and federal agencies, metropolitan

planning organizations, regional planning commissions, local organizations, businesses and communities to address issues and identify unforeseen circumstances and opportunities that might affect the transportation decision-making process.

With all planning organizations, needs identification and project prioritization processes will continue to be developed cooperatively. These processes will be based on the previously identified transportation investment goals and other important considerations. Separate needs identification and project prioritization processes for the state highway and bridge system will be developed for maintenance and operations, rehabilitation and reconstruction and major project activities. These processes will be developed in coordination with MoDOT's transportation partners and used to add projects to future Statewide Transportation Improvement Programs.

Federal and state laws establish different working relationships between MoDOT and various public entities.

## Connection to MoDOT LRTP

The LRTP (Long Range Transportation Plan) sets the transportation direction for Missouri. MoDOT collaborates with the metropolitan planning organizations, regional planning commissions, local officials, the general public and other stakeholders to facilitate the LRTP development. This sets the vision for Missouri's transportation system and defined transportation goals that can take Missouri toward that vision.

Because they are established with broad public support, the LRTP goals will form the foundation of this Regional Transportation Plan (RTP). In the planning process, these basic goals will be refined to fit the unique nature of the region. This includes prioritizing goals and defining broad transportation strategies to help identify transportation needs to effectively meet the highest priority goals.

The Statewide significant needs and priorities established in RTPS will feed directly back into the statewide LRTP updates. The efforts are both iterative, with updates taking place approximately every five years. As these updates take place, the link between the plans will grow stronger.

## Planning Process used to develop plan

Safe and efficient transportation systems do not happen by accident. They require highly coordinated planning between federal, state and local officials, centered on focus areas such as system preservation, safety, access to opportunity, sustainable development, and the movement of goods.

The Regional Planning Commissions (RPCs) are the linchpin to ensuring that all relevant parties have a voice in Missouri's transportation planning process. The RPCs will contribute in many ways to the overall planning effort; from

facilitating rural local officials' involvement in the planning process, to providing technical assistance to MoDOT.

Federal Highway Administration and Federal Transit Administration regulations give local governments the opportunity to be involved in the statewide transportation planning process. MoDOT now has a documented planning process to collect and analyze the input of local government officials, especially those from non-metropolitan areas. This new process should give rural concerns greater impetus in state financing.

Data for this plan was collected through several different venues. The TAC members were instructed to speak with their constituents within their counties to collect needs within the communities. Members were encouraged to talk with citizens that utilize the region's transportation system regularly which included bus drivers, over-the-road truck drivers, farmers, patrolmen and several others. Needs were also collected through individual public meetings with each county commission. At these meetings, needs were brought to the table that the TAC may be not be aware exist.

Once all needs were collected, the TAC board prioritized them. The needs and projects that are addressed in this plan are the opinions of the current TAC members, elected officials, and members of the general public residing within the region.

Other sources that have been utilized to complete this plan include the US Census Bureau, Office of Social and Economic Data Analysis, the Missouri Department of Natural Resources, the Missouri Spatial Data Information Service, and the Center for Agriculture, Research and Environmental Systems.

## Goals and Objectives

The Transportation Equity Act for the Twenty-first Century (TEA-21) 1991 mandates that in transportation planning: "Each state shall carryout a transportation planning process that provides for consideration of projects and strategies that will:

A. Support the economic vitality of the United States, the States, and metropolitan areas, especially by enabling global competitiveness, productivity, and efficiency.
B. Increase the safety and security of the transportation system for motorized and non-motorized vehicle users.
C. Increase the accessibility and mobility options available to people and for freight.
D. Protect and enhance the environment, promote energy conservation, and improve quality of life.
E. Enhance the integration and connectivity of the transportation system, across and between modes throughout the State, for people and freight.
F. Promote efficient system management and operation.
G. Emphasize the preservation of the existing transportation system"

In keeping with this mandate, the Green Hills Regional Planning Commission has set forth the goals and objectives listed below. These will be used during phase one of the Green Hills Regional Transportation Plan (RTP) as a guide in research and planning.

**Goal #1: Plan, develop and maintain a multi-modal transportation system that benefits all residents and commuters within the eleven counties.**

**Objectives:**

1.1 Improve existing infrastructure and build new as needed.

1.2 Maintain current transportation systems.

1.3 Make the transportation system accessible for all residents.

1.4 Account for freight movement on surface transportation systems and adjust to fit traffic patterns.

1.5 Continue to research the feasibility of a rural public transportation system within the eleven county area.

1.6 Encourage alternate forms of transportation to the automobile, including bicycle, pedestrian, public transit, air travel, barge and other modes.

**Goal #2: Promote a safe and reliable transportation system in North Central Missouri.**

**Objectives:**

2.1 Reduce traffic crashes.

2.2 Provide for quick emergency response in the event of accidents.

2.3 Encourage communities to define needs and strategies for safer travel through communities.

2.4 Develop pedestrian friendly communities and roadways.

2.5 Encourage law enforcement agencies to increase enforcement along high traffic corridors, reinforcing speed and seat belt laws.

2.6 Expand and maintain proper signage and visibility on roadways, including speed limits signs, horizontal curve signs, proper lighting, etc.

**Goal #3: Develop a transportation system that enhances the quality of life for the communities within the eleven counties and promote economic development across the region.**

**Objectives:**

3.1 Improve the effectiveness of the region's transportation system, providing convenient modes of transportation of goods and services.

3.2 Maintain a transportation system that minimizes the impact to a community's integrity and is sensitive to local businesses.

3.3 Utilize current and future land use plans in transportation decisions and projects.

3.4 Preserve, whenever possible, agricultural and forested lands.

3.5 Ensure communities are knowledgeable of all the resources for public transportation improvements and additions.

3.6 Evaluate City and County Planning and Zoning Regulations to best implement the plans into transportation projects.

3.7 Encourage development of statewide corridors serving the region.

**Goal #4: Provide a planning process which is open to public comment, credible and complies with state regulations.**

**Objectives:**

4.1 Utilize citizen input in the planning of the transportation system's maintenance and new projects.

4.2 Rationalize on a regional level when planning and preparing for new projects throughout the region and state.

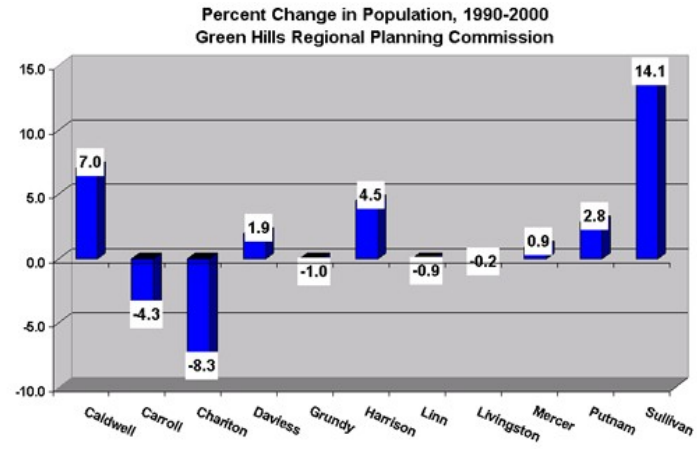
4.3 Educate the public on the inner workings of the region's transportation systems, including projects, travel trends and safety.

# CHAPTER 2

## Population

The combined population of the region as of the 2000 census was 99,501 persons. The population is distributed fairly evenly throughout the region, with slightly higher densities along Interstate 65, State Highway 6 and especially US Highway 36, the regions only four lane highway, which bisects the southern part of the region east to west, passing through Caldwell, Livingston, and Linn counties. (See Population Density Maps, Pages 15 and 16)

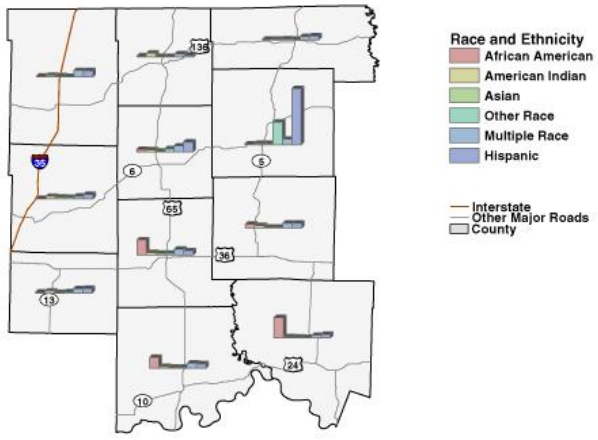
**Fig. 2-1**




The region was undergoing a period of steady decline for about eight decades, until the period between 1990 and 2000 , when the population shifted in different directions in different counties, some experiencing decline while others experienced marked growth (see figure 2-1). Sullivan County has experienced the most significant growth, a perplexing statistic reflecting on one of the poorest and least densely populated counties in the region; especially since it has suffered a corporate pull-out from one of the two large industrial facilities that form the backbone of the economy there. One possible explanation for this jump in population is the influx of immigrant (Hispanic) labor employed by the remaining corporate industry.

**Fig. 2-2**

Green Hills Regional Planning Commission Percent of Total Population by Race and Ethnicity, by County, 2000




Source: USDC, Bureau of the Census, Census of Population and Housing [2000 SF1]
Prepared for MoDOT by: Office of Social and Economic Data Analysis (OSEDA)
Map Generated on 10.2.2002

Growth in Caldwell County can be attributed in most part to urban exodus, as many people from the KC metropolitan area move to outlying rural locations to take advantage of less expensive real estate, lower costs of living, and low crime rates. Some are retired, and some are commuters who basically use the smaller towns and villages as "bedroom communities". Despite the risks of gentrification this situation carries with it, there does not seem to have been a major negative impact yet.

To some extent, Daviess County's growth can also be attributed to the same phenomenon, particularly due to the draw of Lake Viking, a real estate association established on a man-made recreational lake. Some of these residents are seasonal, summer only, and others are living out their retirement.

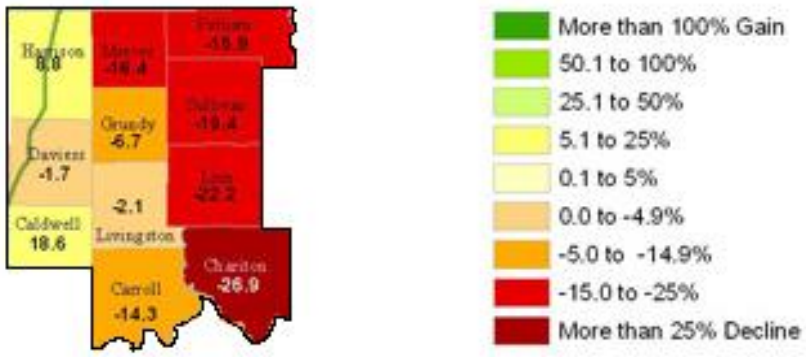
Harrison County also has experienced significant population growth, most likely because a major interstate (I-35) runs through it. The presence of I-35 facilitates commuter residency and makes it easier for cities such as Bethany to attract and keep large employers.

Those counties that did not experience significant growth were fairly stable or experienced slight population loss. However, two counties underwent significant

population loss; Carroll and Chariton Counties, the two southernmost counties in the region which border the Missouri River. These counties are extremely rural in nature, the largest cities having less than 3000 people. The local economies are almost exclusively agricultural, and employment is difficult to find within the area. Population loss could also result from the difficulties of urban expansion in these counties, which is severely limited by the presence of flood plains throughout.

Projections predict slight growth for Caldwell and Harrison County and population decline -in some cases severe – for the rest of the region. This largely mirrors the existing trends as they have been described in this document.

**Projected Percent Change in Population, 2000 to 2030**




Source: Missouri Economic Research and Information Center
www.missourieconomy.org

## Special Groups

There are several groups within the Regional population that need to be identified separately, that their unique needs and concerns may be addressed during the planning process.

Two very important groups which have some overlap are the elderly and the disabled.

**Fig. 2-3**

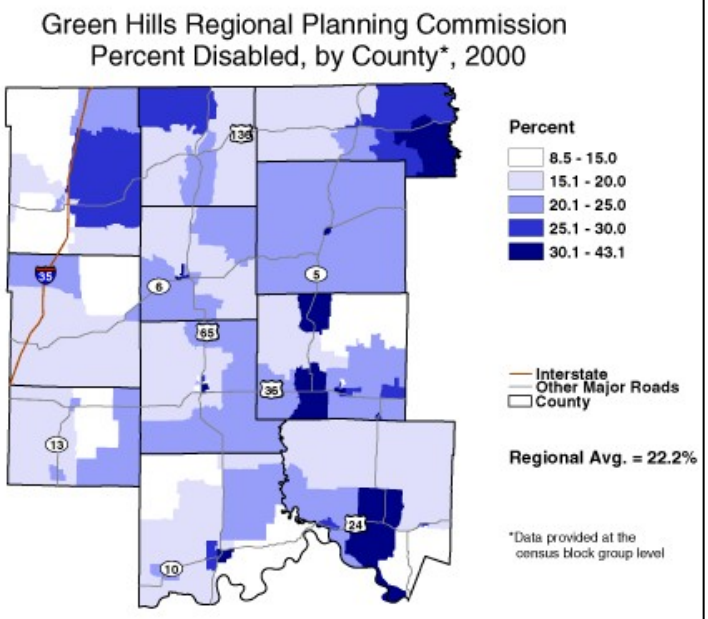
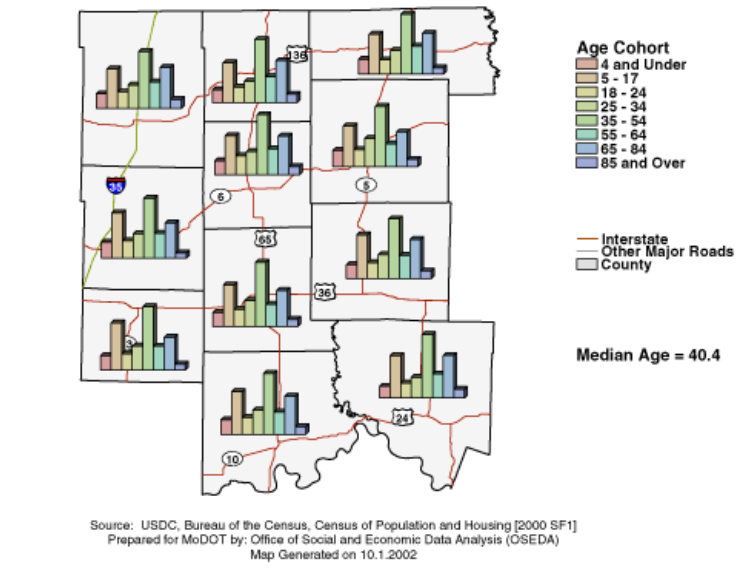



**Fig. 2-4**




As of the 2000 census, the total population of the region was 99,501. Of that population, almost one fifth (19.9%) are over the age of 65, and more than half of those (50.9%) are disabled. In addition, more than one out of ten (12.3%) persons between the age of 16 and 64 are disabled.

These are groups of substantial size with specific needs and concerns, which should be addressed first with an analysis of their geographic distribution throughout the region (see figure 2-3 & 2-4) and the transportation routs in their locations. Also, how transportation issues affect services and organizations like the Health Department, EMS, hospital transportation, and the OATS system should be considered.

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An Amish buggy makes its way along Oaklahamo Ave. in Trenton, MO

Another group that warrants special consideration in the Green Hills Region is the Amish. The largest Amish settlement in Missouri is found near the City of Jamesport in Daviess County. There are more than 150 large families residing in the area. With growing populations in Mercer, Harrison, Caldwell, and Grundy Counties as well the Amish population is expected to double by 2020.


Horse-drawn buggies are the preferred mode transportation for the Amish, who use horse-drawn farm equipment to work their The average buggy is 6 feet wide, built of light material, and travels at a speed from five to eight miles an Hour. Sharing the winding roads and hilly terrain of the region with these buggies are cars, trucks, and motorcycles. A four thousand pound car traveling 55 mph will close a 500-foot

gap on a buggy traveling 5 mph in 6 ½ seconds. When motorized vehicles collide with horse-drawn buggies, the result is often serious injury or death for the buggy passengers and/or horse. This danger is made all the more prevalent in the region due to poor quality or non-existent shoulders common throughout the region. In addition to this, what shoulders there are may be composed predominately of gravel, and do not hold up well under heavy buggy traffic. The narrow wheels cut furrows into the gravel, which become filled with water and erode with drainage, sapping the shoulders' strength and shortening its functional lifespan.

In many states there are statute laws that require any animal-drawn vehicle have a slow moving vehicle (SMV) emblem and/or reflective material mounted on it so as to be visible from a distance of no less than five hundred feet to the rear when illuminated by standard low-beam headlamps. Historically, the Amish have been resistant to such regulation because they felt it infringed on the practice of their religious aesthetic, which demands simplicity and the avoidance of anything that attracts attention or could be construed as prideful. However, as time has gone by (and more people have been injured or killed in accidents) Amish communities have become more receptive to the safety practices and materials than they were in the past.

## Employment

The Green Hills Region is an agricultural area still undergoing a prolonged period of economic restructuring that began more than 20 years ago. This transitional economy has undergone extensive changes in the past decades due to restructuring and consolidation in the agriculture industry, and the growth of corporate farms. Up to the late 1970s the region was primarily agricultural, with a dominance of single-family farms, which at the time were relatively prosperous. What little industry existed within the region at that time was predominately involved with metal fabrication, printing/publishing, and textiles. The 1980s were a period of prolonged and severe economic adjustment for the region; most of the textile industry was lost to plant closings, and the agricultural idustry underwent restructuring that bankrupted many family farms and smaller auxillary business, such as farm supply outlets.

Wages throughout the region continue to lage behind state averages.

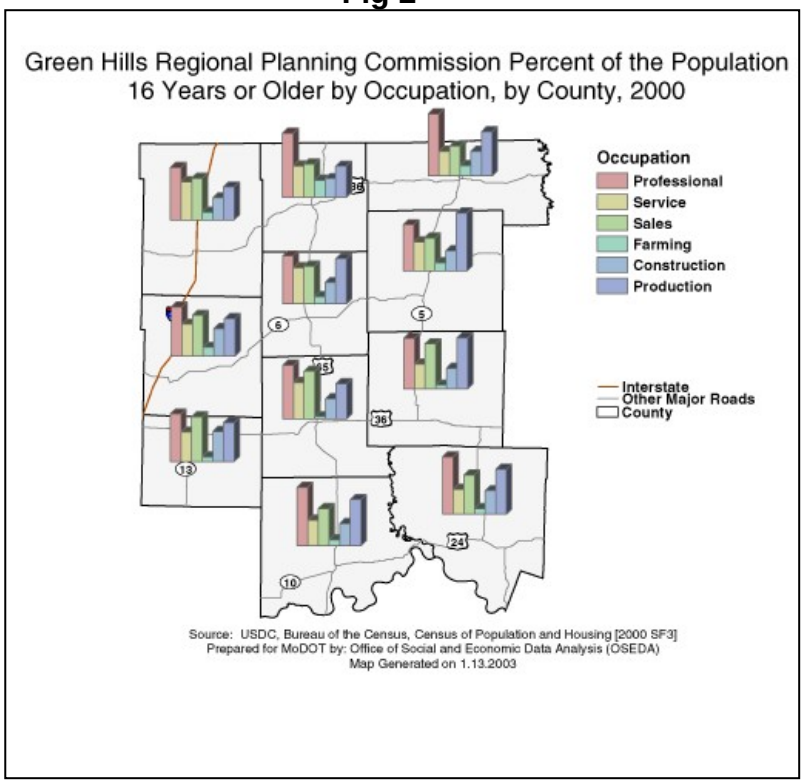
**Total Wages for All Industries: Public and Private**
**Source: MERIC (Missouri Economic Research and Information Center)**

| County | Avg Annual Wages | Avg Hourly Wage |
|---|---|---|
| CALDWELL | $27,009 | $12.99 |
| CHARITON | $24,191 | $11.63 |
| DAVIESS | $23,724 | $11.41 |
| GRUNDY | $27,927 | $13.43 |
| HARRISON | $22,895 | $11.01 |
| LINN | $28,833 | $13.86 |
| LIVINGSTON | $28,387 | $13.65 |
| MERCER | $28,282 | $13.60 |
| PUTNAM | $24,158 | $11.61 |
| SULLIVAN | $32,240 | $15.50 |
| **STATEWIDE** | **$40,024** | **$19.24** |

## Employment Trends and Projections

Today, the region is still stabilizing, as the economy becomes more diversified and less reliant on any one sector of industry. (see Figure 2)
Between 1990 and 2000, the unemployment rate (regional average) dropped 1.7 percent. This trend is expected to continue.

**Fig 2-**




Caldwell County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 4,314 | 3,817 | 497 | 11.5% |
| February | 4,275 | 3,794 | 481 | 11.3% |
| March | 4,261 | 3,781 | 480 | 11.3% |
| April | 4,248 | 3,849 | 399 | 9.4% |
| May | 4,277 | 3,876 | 401 | 9.4% |
| June | 4,312 | 3,908 | 404 | 9.4% |
| July | 4,282 | 3,883 | 399 | 9.3% |
| August | 4,201 | 3,824 | 377 | 9% |
| September | 4,139 | 3,799 | 340 | 8.2% |
| October | 4,151 | 3,818 | 333 | 8% |
| November | 4,180 | 3,807 | 373 | 8.9% |

Carroll County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 5,038 | 4,414 | 624 | 12.4% |
| February | 5,156 | 4,514 | 642 | 12.5% |
| March | 5,167 | 4,546 | 621 | 12% |
| April | 5,188 | 4,677 | 511 | 9.8% |
| May | 5,116 | 4,613 | 503 | 9.8% |
| June | 5,022 | 4,532 | 490 | 9.8% |
| July | 4,766 | 4,269 | 497 | 10.4% |
| August | 4,637 | 4,137 | 500 | 10.8% |
| September | 4,823 | 4,363 | 460 | 9.5% |
| October | 4,860 | 4,412 | 448 | 9.2% |
| November | 4,724 | 4,243 | 481 | 10.2% |

Chariton County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 3,826 | 3,398 | 428 | 11.2% |
| February | 3,919 | 3,472 | 447 | 11.4% |
| March | 3,996 | 3,548 | 448 | 11.2% |
| April | 3,975 | 3,633 | 342 | 8.6% |
| May | 3,915 | 3,567 | 348 | 8.9% |
| June | 3,921 | 3,561 | 360 | 9.2% |
| July | 3,813 | 3,453 | 360 | 9.4% |
| August | 3,713 | 3,365 | 348 | 9.4% |
| September | 3,791 | 3,448 | 343 | 9% |
| October | 3,873 | 3,547 | 326 | 8.4% |
| November | 3,786 | 3,426 | 360 | 9.5% |

Daviess County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 3,751 | 3,320 | 431 | 11.5% |
| February | 3,809 | 3,370 | 439 | 11.5% |
| March | 3,840 | 3,390 | 450 | 11.7% |
| April | 3,758 | 3,436 | 322 | 8.6% |
| May | 3,697 | 3,378 | 319 | 8.6% |
| June | 3,768 | 3,433 | 335 | 8.9% |
| July | 3,635 | 3,299 | 336 | 9.2% |
| August | 3,476 | 3,152 | 324 | 9.3% |
| September | 3,648 | 3,328 | 320 | 8.8% |
| October | 3,751 | 3,451 | 300 | 8% |
| November | 3,651 | 3,330 | 321 | 8.8% |

Grundy County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 4,616 | 4,204 | 412 | 8.9% |
| February | 4,720 | 4,301 | 419 | 8.9% |
| March | 4,777 | 4,341 | 436 | 9.1% |
| April | 4,682 | 4,353 | 329 | 7% |
| May | 4,637 | 4,298 | 339 | 7.3% |
| June | 4,682 | 4,310 | 372 | 7.9% |
| July | 4,642 | 4,261 | 381 | 8.2% |
| August | 4,520 | 4,145 | 375 | 8.3% |
| September | 4,716 | 4,372 | 344 | 7.3% |
| October | 4,777 | 4,445 | 332 | 6.9% |
| November | 4,696 | 4,361 | 335 | 7.1% |

Harrison County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 4,612 | 4,172 | 440 | 9.5% |
| February | 4,731 | 4,283 | 448 | 9.5% |
| March | 4,757 | 4,313 | 444 | 9.3% |
| April | 4,601 | 4,287 | 314 | 6.8% |
| May | 4,527 | 4,211 | 316 | 7% |
| June | 4,591 | 4,246 | 345 | 7.5% |
| July | 4,503 | 4,157 | 346 | 7.7% |
| August | 4,330 | 3,981 | 349 | 8.1% |
| September | 4,382 | 4,042 | 340 | 7.8% |
| October | 4,299 | 3,984 | 315 | 7.3% |
| November | 4,217 | 3,870 | 347 | 8.2% |

**Linn County during 2010**

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 6,438 | 5,703 | 735 | 11.4% |
| February | 6,533 | 5,790 | 743 | 11.4% |
| March | 6,686 | 5,907 | 779 | 11.7% |
| April | 6,453 | 5,948 | 505 | 7.8% |
| May | 6,452 | 5,914 | 538 | 8.3% |
| June | 6,575 | 5,931 | 644 | 9.8% |
| July | 6,341 | 5,689 | 652 | 10.3% |
| August | 6,193 | 5,566 | 627 | 10.1% |
| September | 6,320 | 5,715 | 605 | 9.6% |
| October | 6,454 | 5,833 | 621 | 9.6% |
| November | 6,451 | 5,753 | 698 | 10.8% |

**Livingston County during 2010**

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 7,288 | 6,652 | 636 | 8.7% |
| February | 7,363 | 6,728 | 635 | 8.6% |
| March | 7,426 | 6,778 | 648 | 8.7% |
| April | 7,325 | 6,842 | 483 | 6.6% |
| May | 7,254 | 6,728 | 526 | 7.3% |
| June | 7,315 | 6,773 | 542 | 7.4% |
| July | 7,348 | 6,800 | 548 | 7.5% |
| August | 7,016 | 6,490 | 526 | 7.5% |
| September | 7,089 | 6,565 | 524 | 7.4% |
| October | 6,946 | 6,448 | 498 | 7.2% |
| November | 6,864 | 6,332 | 532 | 7.8% |

Mercer County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 1,690 | 1,552 | 138 | 8.2% |
| February | 1,773 | 1,621 | 152 | 8.6% |
| March | 1,786 | 1,632 | 154 | 8.6% |
| April | 1,716 | 1,588 | 128 | 7.5% |
| May | 1,641 | 1,509 | 132 | 8% |
| June | 1,647 | 1,508 | 139 | 8.4% |
| July | 1,606 | 1,461 | 145 | 9% |
| August | 1,556 | 1,407 | 149 | 9.6% |
| September | 1,696 | 1,559 | 137 | 8.1% |
| October | 1,915 | 1,782 | 133 | 6.9% |
| November | 1,805 | 1,668 | 137 | 7.6% |

Putnam County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 2,364 | 2,180 | 184 | 7.8% |
| February | 2,403 | 2,219 | 184 | 7.7% |
| March | 2,454 | 2,245 | 209 | 8.5% |
| April | 2,372 | 2,224 | 148 | 6.2% |
| May | 2,355 | 2,191 | 164 | 7% |
| June | 2,373 | 2,199 | 174 | 7.3% |
| July | 2,329 | 2,139 | 190 | 8.2% |
| August | 2,248 | 2,061 | 187 | 8.3% |
| September | 2,359 | 2,181 | 178 | 7.5% |
| October | 2,429 | 2,254 | 175 | 7.2% |
| November | 2,347 | 2,166 | 181 | 7.7% |

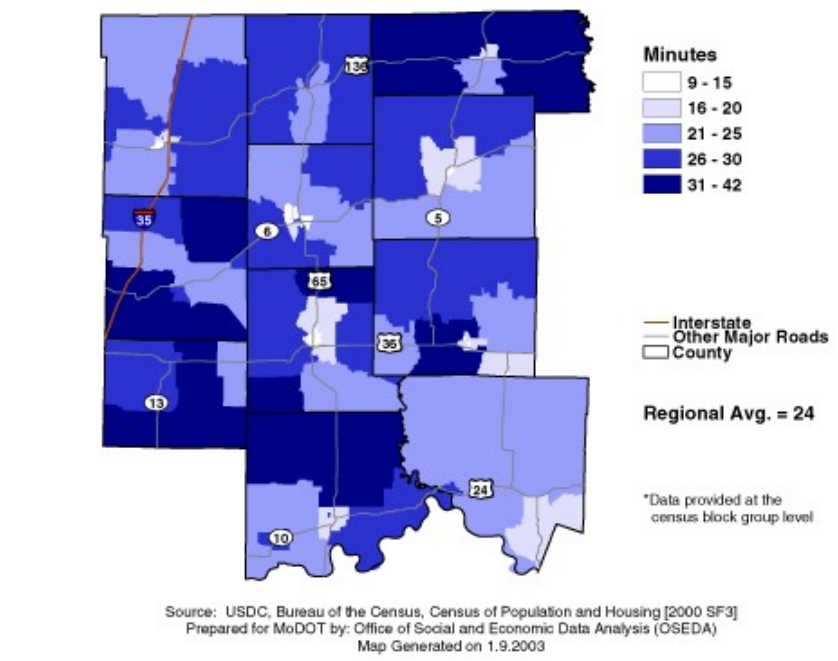
Sullivan County during 2010

| Month | Labor Force | Employment | Unemployment | Rate |
|---|---|---|---|---|
| January | 3,525 | 3,254 | 271 | 7.7% |
| February | 3,623 | 3,343 | 280 | 7.7% |
| March | 3,643 | 3,352 | 291 | 8% |
| April | 3,603 | 3,396 | 207 | 5.7% |
| May | 3,541 | 3,329 | 212 | 6% |
| June | 3,534 | 3,315 | 219 | 6.2% |
| July | 3,582 | 3,349 | 233 | 6.5% |
| August | 3,492 | 3,253 | 239 | 6.8% |
| September | 3,586 | 3,357 | 229 | 6.4% |
| October | 3,668 | 3,449 | 219 | 6% |
| November | 3,598 | 3,352 | 246 | 6.8% |

Economic development is a key concern for most communities in the region, and most exert constant efforts to attract new businesses and employers, and to build on and expand existing ones. The Economic hub of the region is the City of Chillicothe, in Livingston County. Situated at the intersection of highways 36 and 65, this city is home to a great deal of industrial and commercial activity, and the largest employers in the region. Construction of new businesses and expansions to existing facilities are fairly constant in the City, and the recent acquisition of a new state Women's Prison to be built there will bring millions of dollars into the region. People commute from many other counties to work in Chillicothe. Other factors in the region include the usual commercial endeavors (department stores, gas stations, etc) and corporate farm operations. Con-Agra/ PSF has confined animal feeding operations all over the region, particularly the northern half. Their headquarters are located in Mercer County, while the City of Milan in Sullivan County is home to their major processing facility. Other than that, employment propositions in the region are pretty thin, and many people commute as much as an hour drive from where they live to where they work (see fig 2-).

As seen in fig. 2-4, most of the commuters who travel the longest distances live in the North East and South West corners of the region. In the North East (Putnam County), many workers commute north into Iowa, towards Centerville and Ottumwa, or east towards Kirksville Missouri.

**Fig 2-**




In the South Western part of the region (Caldwell and Carroll Counties), many are commuting south west, towards the prisons in Cameron or beyond to the Kansas City Metro Area.

**Land Use/Demand Forecast**

Land use in the Green Hills Region is still predominately agricultural, though the focus of that use has shifted from single-family farms to corporate concerns, with some residential development of rural land.

The trend of slight growth for some counties and population decline for others projected for the region will be accompanied by small land use changes, as new property is annexed for residential, commercial, or industrial expansion in a few

cities. This can be expected to be most visible in the area of Chillicothe, in Livingston County. Land use is not expected to change drastically, with the exception of two recreational lakes slated to be constructed in Caldwell and Sullivan Counties. Not yet built, their effect s on local and regional traffic patterns and volumes remain to be seen.

When it becomes available, more detailed information on these lakes (such as dam safety plans) will be included as appendixes to this document and the lakes themselves will be factored in to Transportation planning.

# CHAPTER 3

## Existing Transportation Facilities

### Roadways and Bridges

The preliminary step of any transportation planning process must be to take an inventory of the existing roads and bridges; the number, classifications, use, and condition.

The Green Hills Region has many miles of State maintained roadway - two interstate highways and about a dozen state highways, with a great number of lettered highways, in varying conditions. One American Legion Memorial Highway (65) runs through the region and is the focus of a concerted effort along its length throughout the Missouri to upgrade it to four lanes. There is one VFW Memorial Highway (36) which bisects the region from east to west, a major traffic way that runs the width of the State from the Missouri River in the west to the Mississippi river on in the east, and is four lane for most of its length. Par t of the Louise and Clark Trail also runs through the southern part of the region, along highways 10, 24, and 5 in Carroll and Chariton Counties.

Generally, the larger roads with heavy traffic loads receive more maintenance attention and are in better shape. Interstate Highways 35 and 36 are generally kept in good conditions and most of the numbered routs, while lacking comfortably sized shoulders, are adequate. Of these major roads, 65 is in the poorest conditions, and the call for maintenance has evolved into a push to upgrade it to four lanes for its entirety throughout the State, spearheaded by a coalition of Interested parties situated along it.

Many of the lettered routes are in varying states of disrepair. Poor to nonexistent shoulders and large “chuck holes” are commonly reported problems.

These rural routes are where many of the regions' narrow and dilapidated bridges are found. There are just over 700 State maintained bridges or culverts in the Region. Of those, 633 are single lane bridges. Many have one of their three components (superstructure, substructure, or deck) rated as being in poor or serious condition, meaning that they are in desperate need of maintenance.

**Railroads**

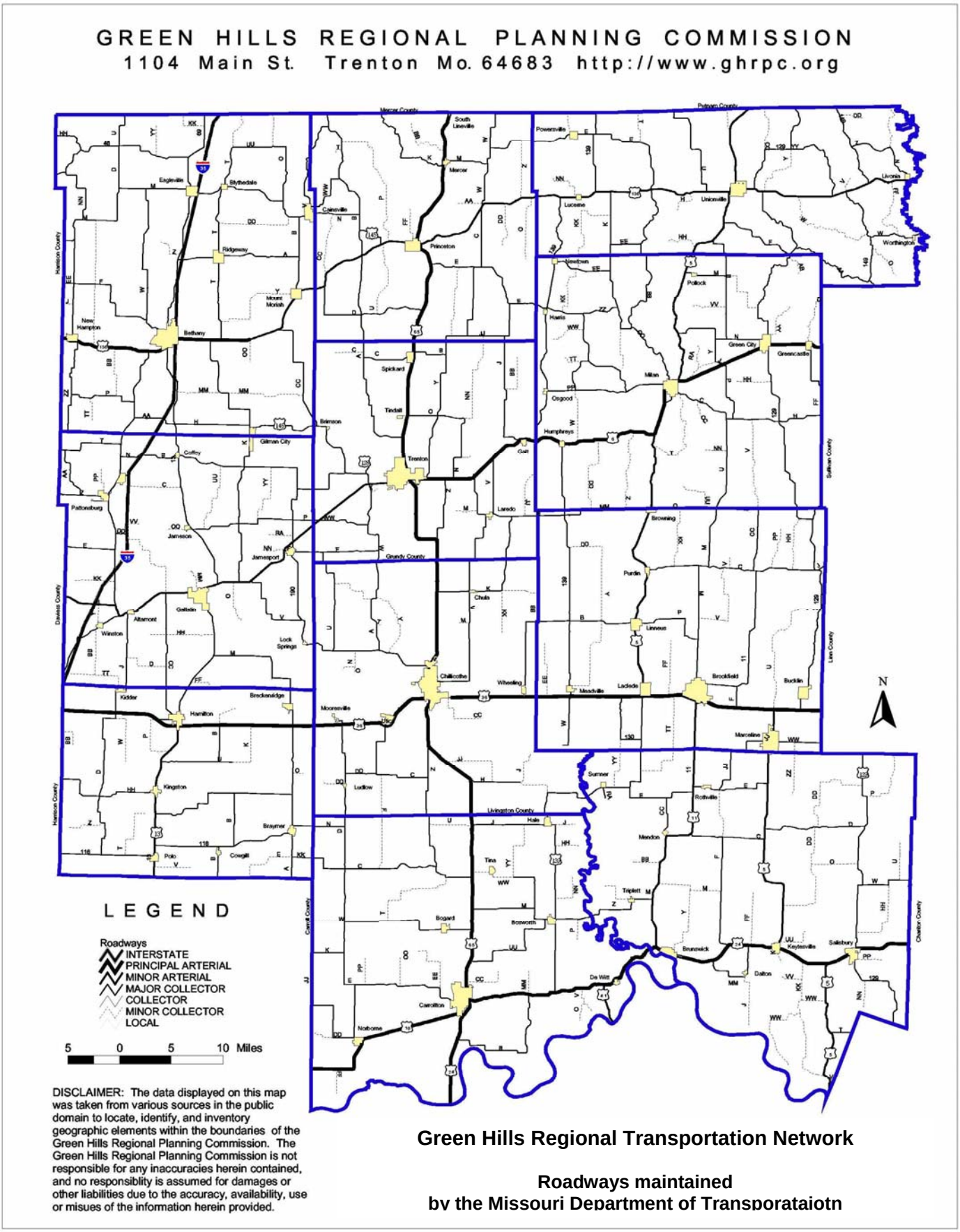
Railroads first made their way across the region in the late 1850s with the construction of the Hannibal and St. Joseph railroad. After the end of Civil War, the sale of surplus railroad land was intensely advertized and resulted in increased immigration of easterners to the region. In 1887 the Milwaukee railroad crossed the southern counties of the region. There were as many as seven different railroad companies traversing the region, but today there are three left operating the remaining functional track, which all run south east to north west. Burlington Northern has two lines running through Carroll, Chariton, and Linn Counties. Norfolk and Western has a line running through Caldwell, Livingston, Sullivan, and Putnam, and Union Pacific runs through Caldwell, Grundy, and Mercer.

**Airports**

There are 18 Airports, mostly which are private and commercial use only. (There are no "major" airports in the region) Most of these are easily capable of receiving helicopter traffic as well. There are four dedicated heliports in the region, all private, at hospitals for medical transport. There are three ports; all located along the Missouri River in Carroll or Chariton Counties.

## Bike/Pedestrian Facilities

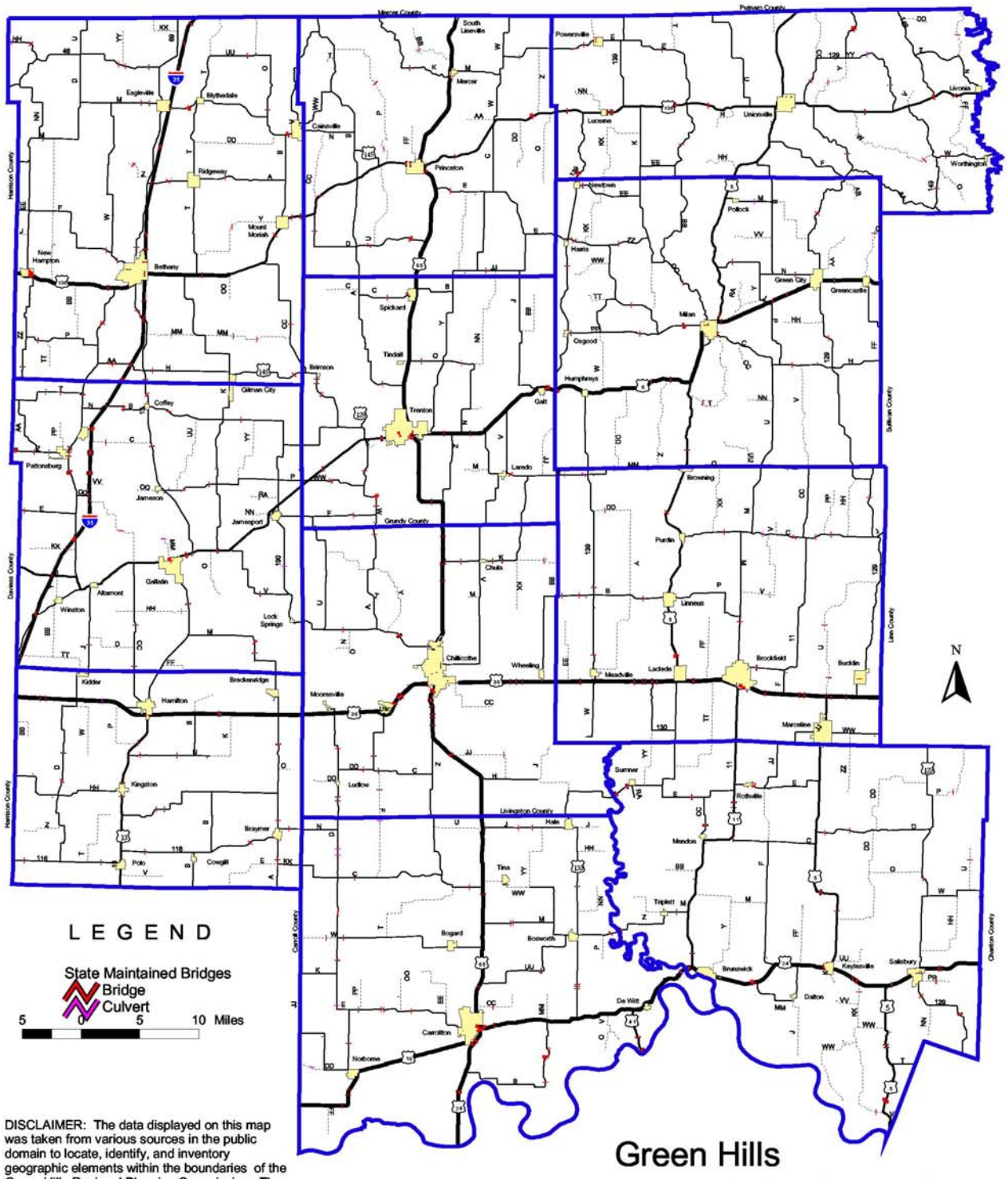
Being mostly rural, bicycle and pedestrian paths are limited in the Green Hills Region. Most communities with a school have a football field and a track where people go to walk or run, but most of those discourage or outright disallow biking. Some communities, like Trenton and Chillicothe, have fair sized park systems with allow them space for walking paths, but again most are not designed for bicycling. One location in particular that is striving for the installation of a bike path is the City of Chillicothe, where local authorities feel that it would increase safety along Hwy 190 along the north edge of town, where the high school is located.

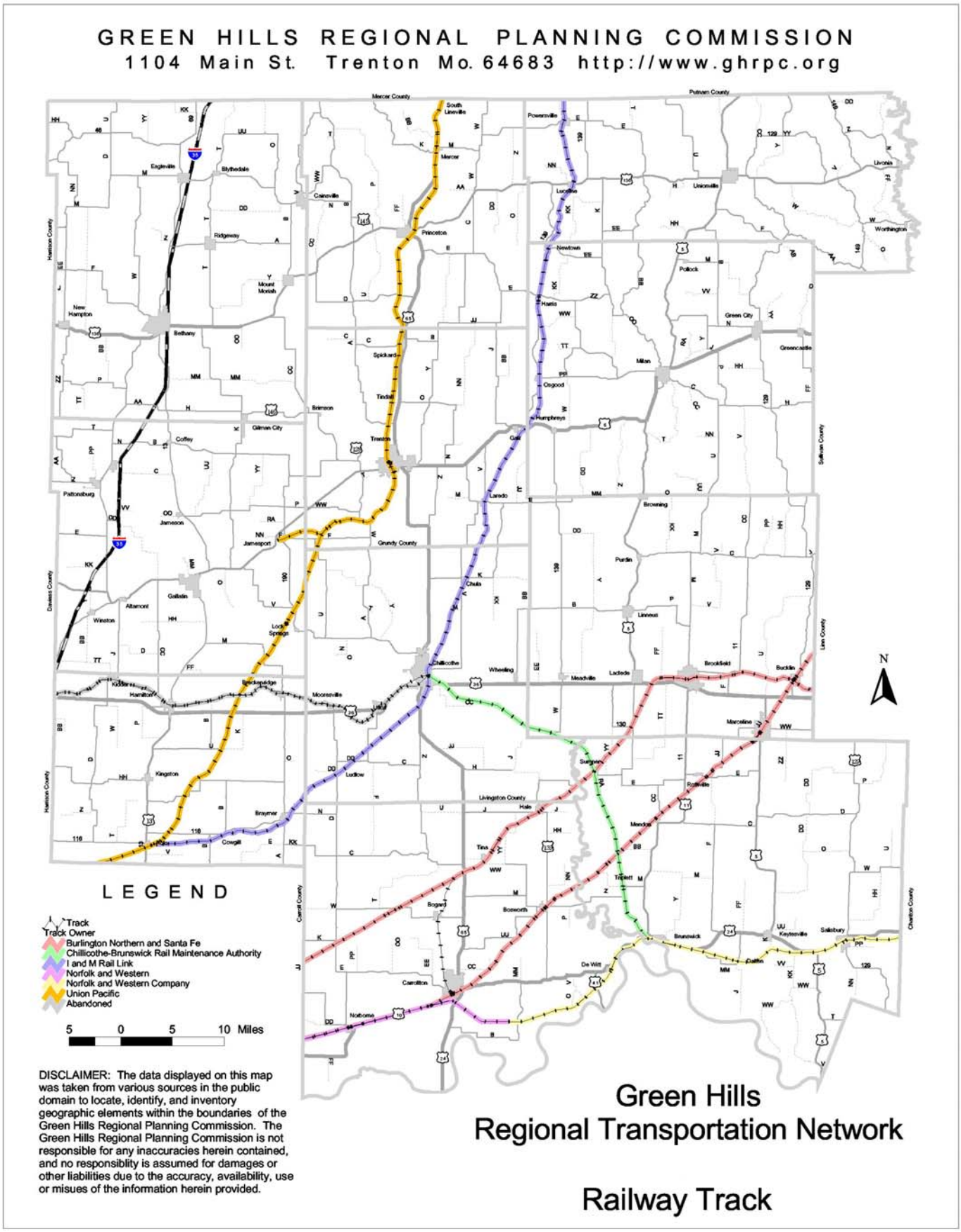



**Green Hills Regional Transportation Network**

**Roadways maintained by the Missouri Department of Transporataiotn**

GREEN HILLS REGIONAL PLANNING COMMISSION
1104 Main St. Trenton Mo. 64683 http://www.ghrpc.org

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LEGEND
Track
Track Owner
Burlington Northern and Santa Fe
Chillicothe-Brunswick Rail Maintenance Authority
I and M Rail Link
Norfolk and Western
Norfolk and Western Company
Union Pacific
Abandoned
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Green Hills
Regional Transportation Network
Railway Track

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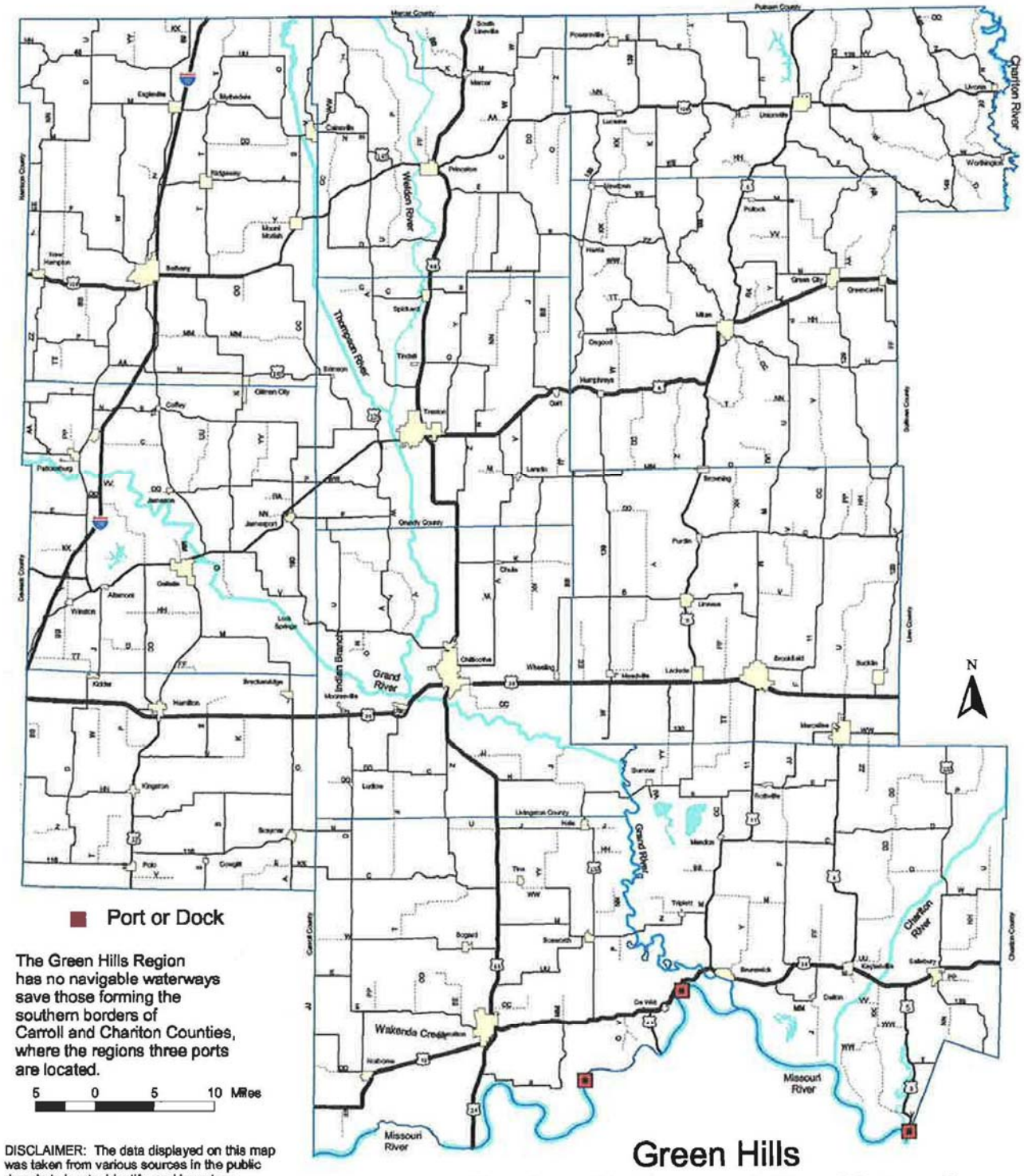


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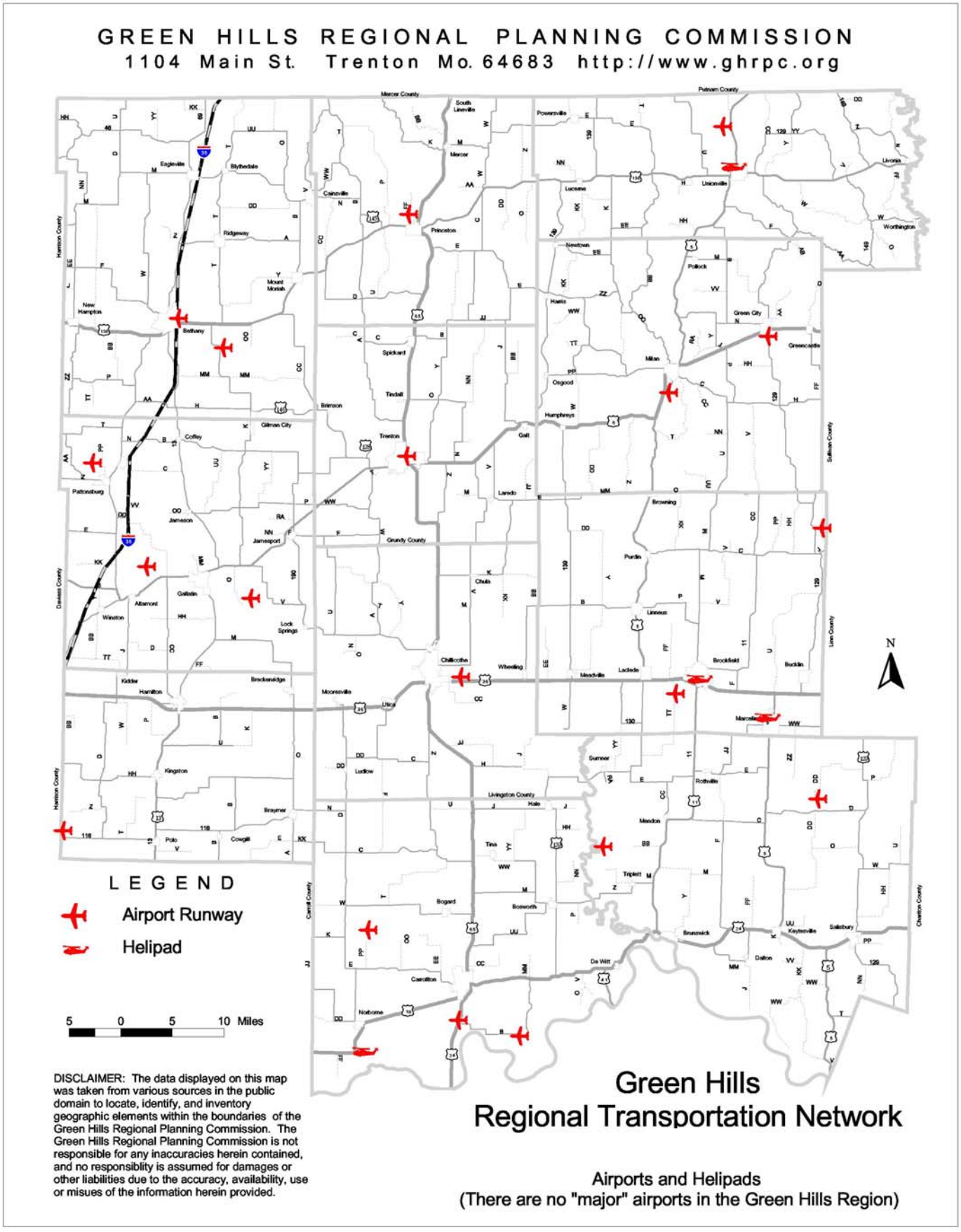
GREEN HILLS REGIONAL PLANNING COMMISSION
1104 Main St. Trenton Mo. 64683 http://www.ghrpc.org
LEGEND
Airport Runway
Helipad
5 0 5 10 Miles
N
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Green Hills
Regional Transportation Network
Airports and Helipads
(There are no "major" airports in the Green Hills Region)

# CHAPTER 4

## National Traffic Control Standards

National Traffic Control Standards are those standards specified by the US Department of Transportation in their Manual on Uniform Traffic Control Devices. These Standards specify which traffic signs, road markings, and signals are designed, installed, and used on the Federal Highway System, as well as on State and Local public roads. All traffic control devices must generally conform to these standards. First released in 1935, eight subsequent editions of the manual have been published under the aegis of the National Committee on Uniform Traffic Control Devices, with numerous minor updates taking into consideration changes in usage and size of the nation's system of roads as well as improvements in technology.

*Highway Standards*

Standards for Interstate Highways are defined by the American Association of State Highway and Transportation Officials (AASHTO) in the publication *A Policy on Design Standards - Interstate System*. For a certain highway to be considered an Interstate, it must meet these construction requirements or obtain a waiver from the Federal Highway Administration.

These standards are

- Controlled access.

  All access onto and off the roadway is to be controlled with interchanges and grade separations (including railroad crossings). Interchanges should provide full access; ramps are to be designed with the appropriate standards in mind. Minimum interchange spacing should be 1 mi (1.5 km) in urban areas and 3 mi (5 km) in rural areas; collector-distributor roads or other configurations that reduce weaving can be used in urban areas to shorten this distance. Access control (from adjacent properties) should extend at least 100 ft (30 m) in urban areas and 300 ft (90 m) in rural areas in each direction along the crossroad from the ramps.

- Minimum speed of safe travel.

  Minimum design speed of 70 mph (110 km/h) in rural areas, with 60 mph (100 km/h) acceptable in rolling terrain, and as low as 50 mph (80 km/h) allowed in mountainous and urban areas. Sight distance, curvature and superelevation according to the current edition of AASHTO's *A Policy on Geometric Design of Highways and Streets* for the design speed.

- Maximum grade.

  Maximum grade is determined by a table, with up to 6% allowed in mountainous areas and hilly urban areas

- Minimum number of lanes.

  At least two lanes in each direction, and more if necessary for an acceptable level of service in the design year, according to the current edition of AASHTO's *A Policy on Geometric Design of Highways and Streets*. Climbing lanes and emergency escape ramps should be provided where appropriate.

- Minimum lane width.

  Minimum lane width of 12 ft (3.6 m)

- Shoulder width.

  Minimum outside paved shoulder width of 10 ft (3.0 m) and inside shoulder width of 4 ft (1.2 m). With three or more lanes in each direction, the inside paved shoulder should be at least 10 ft (3.0 m) wide. If truck traffic is over 250 Directional Design Hour Volume, shoulders at least 12 ft (3.6 m) wide should be considered. In mountainous terrain, 8 ft (2.4 m) outside and 4 ft (1.2 m) inside shoulders are acceptable, except when there are at least four lanes in each direction, in which case the inside shoulders should also be 8 ft (2.4 m) wide.

- Pavement sloping.

  Pavement cross slope of at least 1.5% and preferably 2% to ensure proper drainage on straight sections. This can be increased to 2.5% in areas of heavy rainfall. Shoulder cross slope should be between 2% and 6% but not less than the main lanes.

- Land slopes within the clear zone should be at most 4:1 and preferably 6:1 or flatter.

  Roadside barriers should be used for slopes of 3:1 or steeper, in accordance with the current edition of AASHTO's Roadside Design Guide.

- Median width.

  Minimum median width of 36 ft (11 m) in rural areas, and 10 ft (3.0 m) in urban or mountainous areas. To prevent median-crossing accidents, guardrail should be installed in medians in accordance with the current edition of AASHTO's *Roadside Design Guide*, based on traffic, median width and crash history. When possible, median openings between parallel bridges less than 30 ft (9.0 m) in width should be decked over; otherwise barriers or guardrails should be installed to exclude vehicles from the gap.

- Recovery areas.

  No fixed objects should be in the clear recovery area, determined by the design speed in accordance with the current edition of AASHTO's *Roadside Design Guide*. When this is not possible, breakaway supports or barriers guarding the objects shall be used.

- Curb slope.

  Vertical curbs are prohibited. Sloping curbs are to be at the edge of the paved shoulder, with a maximum height of 100 mm (4 in). The combination of curbs and guardrail is discouraged; in this case the guardrail should be closer to the road than the curb.

- Vertical clearance.

  Minimum vertical clearance under overhead structures (including over the paved shoulders) of 16 ft (4.9 m) in rural areas and 14 ft (4.3 m) in urban areas, with allowance for extra layers of pavement. Through urban areas at least one routing should have 16 ft (4.9 m) clearances. Sign supports and pedestrian overpasses must be at least 17 ft (5.1 m) above the road, except on urban routes with lesser clearance, where they should be at least 1 ft (0.3 m) higher than other objects. Vertical clearance on through truss bridges is to be at least 17 ft (5.1 m).

- Horizontal clearance under or along a bridge shall be the full paved width of the rest of the road.

  Bridges longer than 200 ft (60 m) can be narrower, with a minimum of 4 ft (1.2 m) on both sides of the travel lanes.

- Bridge strength.

  New bridges are to have at least MS 18 (HS-20) structural capacity. Weaker bridges that can continue to serve the route for 20 more years are allowed to remain.

  Additionally, existing bridges can remain if they have at least 12 ft (3.6 m) lanes with 10 ft (3.0 m) outside and 3.5 ft (1.1 m) inside shoulders. Long bridges are to have at least 3.5 ft (1.1 m) on each side of the travel lanes; bridge railing should be upgraded to current standards if necessary.

- Tunnel clearance.

  Tunnels should in theory be equivalent to long overcrossings, but because of cost the standards can be reduced. Vertical clearance is the same as under bridges, including the provision for alternate routing. Width should be at least 44 ft (13.1 m), which consists of two 12 ft (3.6 m) lanes, 10 ft (3.0 m) outside and 5 ft (1.5 m) inside shoulders, and 2.5 ft (.7 m) safety walkways on each side. If necessary to meet the dimensions of the

approach, this can be shifted left or right. A reduced width is acceptable due to high cost. In this case, the minimum width is 30 ft (9.0 m), with at least 2 ft (0.6 m) more than the approach for the sum of the shoulder widths, but at least 24 ft (7.2 m) total, and at least 1.5 ft (0.5 m) on each side for a safety walkway. If there is no safety walkway, a 3 ft (1.0 m) offset with a "safety shape" in the wall is acceptable.

The standards have been changed over the years, resulting in many older Interstates not being built to the current standards. Other roads were grandfathered into the system, and yet others are not built to standards because to do so would be too costly or environmentally unsound.

*Street Standards*

Street standards address the same issues as Highway Standards, but on the smaller scale of local roadways - city streets and county or township roads who's construction and maintenance are not within the scope of MoDots operations. These standards may vary greatly and are met with varying degrees of compliance.

*Signalized Intersections*

American association of State Highway and Transportation Officials' (AASHTO) Strategic Highway Safety Plan includes standards for nonsignalized and signalized intersections. The goal is to reduce the annual number of highway deaths. These standards may prompt actions ranging from low-cost measures such as modifiying signal timing and signage, to high-cost measures such as intersection reconstruction or grade separation. These standards are built on fundamental principles of user needs, geometric design, and traffic design and operation; safety and operational analysis techniques to address a range of

concerns, from individual movements and approaches, pedestrian and bicycle issues, to major corridors. The standards are designed with safety, operational performance, multimodal issues, and physical and economic factors in mind, and are based on the latest research on available methods and best practices in use by jurisdictions across the United States.

**Transportation System Management**

Transportation System Management is a discipline which seeks to identify improvements to enhance the capacity of existing transportation systems. Through better management and operation of existing transportation facilities, these techniques are designed to improve traffic flow, air quality, and movement of vehicles and goods, as well as enhance system accessibility and safety. Transportation systems management strategies are low-cost but effective in nature, which include, but are not limited to:

- Intersection and signal improvements
- Freeway bottleneck removal programs
- Data collection to monitor system performance
- Special events management strategies

Traffic signal and intersection improvements include such elements as:

- signal timing optimization
- controller/ cabinet and signal head upgrades
- vehicle detectors repair / replacement
- communication with a central system
- turning lanes
- grade separations
- pavement striping
- lane assignment changes
- signage and lighting

Freeway and arterial bottleneck removal consist of identifying congested locations and improving such elements as:

- insufficient acceleration/deceleration lanes and ramps
- weaving sections
- sharp horizontal/vertical curves
- narrow lanes and shoulders
- inadequate signage and pavement striping
- other geometric deficiencies

The identification and elimination of traffic bottlenecks can greatly improve traveling conditions and enhance system capacity, reliability, and safety, especially during peak periods. TSM projects can complement the major capacity improvements and infrastructure by providing improved traffic flow on arterials and local streets. Transportation System Management can be broken down into several main elements, detailed below.

*Congestion Management*

A congestion management system is designed to avoid “capacity expansion”, literally the building of more roadways, if at all possible. Typically analysis takes place first, viewing data (i.e. traffic volume) in relation to the geographic elements (“segments” or “corridors”) of a transportation system. Once a preliminary analysis of the entire system highlights the areas of highest congestion, a more detailed analysis of those specific areas can be conducted. Potential causes of congestion are reviewed, and a list of possible solutions is evaluated using a qualitative selection process, leaving only the most likely strategies to pass on to the pre-planning and modeling phase.

*The Congestion Mitigation and Air Quality Improvement Program* (CMAQ) is federally mandated in SAFETEA-LU. The federal transportation bill reserves funding for projects that improve air quality in affected areas. Affected areas are

defined as areas that are required by the Clean Air Act to address air quality issues. MoDOT distributes funding to eligible areas for project selection. The EPA determines the geographical boundaries for this program. The Federal Highway Administration and the EPA establish the Congestion Mitigation and Air Quality Improvement Program funding levels and eligible work types. The purpose of these funds is to reduce transportation-related emissions and improve air quality. Missouri receives approximately $24.3 million annually during SAFETEA-LU. The Missouri Highways and Transportation Commission approved a funding distribution during SAFETEA-LU of $2.7 million to Kansas City (MARC), and $21.6 million to St. Louis (EWGCG).provides funding for projects and programs in air quality nonattainment and maintenance areas for ozone, carbon monoxide, and particulate matter which reduce transportation related emissions.

Priority in distributing funds is geared towards projects and programs involving diesel retrofits and other cost-effective emission reduction activities, and cost-effective congestion mitigation activities that provide air quality benefits including projects and programs that:

- establish or operate advanced truck stop electrification systems
- improve transportation systems management and operations that mitigate congestion and improve air quality
- involve the purchase of diesel retrofits that are for motor vehicles or non-road vehicles and non-road engines used in construction projects located in ozone or particulate matter non-attainment or maintenance areas and funded under 23 USC
- conduct outreach activities that provide assistance to diesel equipment and vehicle owners and operators regarding the purchase and installation of diesel retrofits

Additionally Missouri, with a number of other Midwestern states is permitted to use program funding for the purchase of alternative fuels or biodiesel.

*Access Management*

Road systems serve two necessary, but often conflicting, functions: traffic movement and access to land.

Access management is the regulation of interchanges, intersections, driveways and median openings to a roadway. Its objectives are to enable access to land uses while maintaining roadway safety and mobility through controlling access location, design, spacing and operation.

Access management is most evident on freeways where access is grade separated and all movements are via dedicated ramps. It is very important on arterial roads where at-grade intersections and private driveways greatly increase the number of conflicts involving vehicles, cyclists, and pedestrians. It is also important on minor roadways for safety considerations such as driver sight distance.

Planners, engineers, architects, developers, elected officials, citizens and attorneys all play a significant role in access management. Businesses frequently view any attempt to limit access to their land uses as economically detrimental. This can make implementation controversial. However there is a growing body of evidence showing that access management can have the positive effect of increasing market area through reducing travel times on major roadways, and that minor increases in circuitry do not cause customers to stop patronizing businesses.

Traditionally, the goal of access management has been to provide adequate access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity and speed. However, it

has become increasingly apparent that the planning and design of both roadways and neighboring land uses must be coordinated not only to simultaneously preserve the functional integrity of the highway system while allowing efficient access to and from abutting properties, but also to serve the desired land use objectives of local communities.

As cities expand, increased development along arterial highways generates more and more demand for driveways and intersecting local roads to. serve abutting and nearby businesses, industries and neighborhoods. Without access planning and management, arterials become increasingly congested and safety is-compromised. Planning the number of and controlling the location of access points helps to ensure both the safe and efficient flow of traffic and improved service to adjacent lands. The functional integrity of the arterial is maintained and major capacity improvements are often not needed or can be delayed until a later date. At the same time, bicycle and pedestrian travel is made safer due to fewer sites for potential conflicts with vehicles turning into and out of intersecting driveways.

In the older, developed portions of urban areas, access management is only possible on an ad hoc basis, with consolidation or removal of existing access being sought in conjunction with roadway reconstruction or urban redevelopment projects. It is primarily on the urban fringes that it is possible to coordinate transportation system improvements with land development to avoid creating situations where too much poorly spaced access renders a facility incapable of effectively serving its traffic-carrying function. When access management and land use planning are coordinated, it is possible to ensure that when properties are developed, site designs

are compatible with efficient movement of traffic onto and off of public roadways and, at the same time, are conducive to pedestrian movements, bicycle traffic and transit usage.

Proper access management, particularly with regard to spacing and type of access, can also be used as a tool, in conjunction with proper zoning, to help shape development patterns in a manner consistent with local community plans and desires.

*Right of Way and Corridor Preservation*

There is a growing awareness that land use decisions affect transportation needs and transportation improvements, in turn, affect land use decisions. Freeway interchanges and arterial road junctions have become focal points for new shopping centers, industrial parks and office complexes. Urban and suburban arterial roadways are lined with strips of roadside development.

It has been argued that highway improvements have exacerbated problems of sprawling, uncontrolled development by providing easier access to urban fringe areas and beyond. This development has, at the same time, affected the functional integrity of roadways by
causing problems of congestion and capacity loss.

Rapid, often unplanned, peripheral development has frequently been the source of major problems for both local and state transportation systems: buildings have often been constructed
close to the roadways, making future capacity expansion difficult and costly; and too many access points onto roadways have resulted in vehicle conflicts,

reduced safety and a general deterioration in traffic flow. Once areas have been fully, or even partially, developed, there is often little that can be done to alleviate these problems. However, toward the peripheries of urban areas, where development occurs, how close it will be to existing roadways and the type of access it will have to existing and future facilities.

Those who take part in the Transportation Panning process should always keep in mind the relationship of transportation and land use. This includes a consideration of the likely effects of transportation decisions on land use and development and the consistency of transportation plans and programs with the provisions of local land use and development plans.

Corridor preservation is one means of coordinating transportation planning with land use planning and development. Its goal is to prohibit, or at least minimize, development in areas which are likely to be required to meet transportation needs in the future. These areas include: lands adjacent to existing roadways which are projected to require capacity expansion; areas which might be needed to construct entirely new routes for urban bypasses or to serve new neighborhoods or commercial developments; and land needed for bicycle, transit and pedestrian facilities (e.g. bikeways, walkways, transit turnouts, busways and light rail corridors).

When corridors are preserved in advance, negative land use and social impacts, as well as the costs of transportation improvements, are minimized. However, when land is not preserved for future needs, disruption of residences and businesses is a frequent result and the cost of obtaining the land to accommodate improvements is likely to be

considerably higher. At times, the needed improvement can not even be made because the disruption and cost would be too great.

*Transportation Demand Management*

Transportation-demand management, or Transportation Demand Management, succinctly is described as being "the art of influencing traveler behavior for the purpose of reducing or redistributing travel demand." The primary purpose of Transportation Demand Management is to reduce the number of vehicles using highway facilities while providing a wide variety of mobility options for those who wish to travel. A major emphasis of Transportation Demand Management strategies and actions exists to reduce single- occupant- vehicle travel and the number of trips made by single- occupant vehicles. Reducing this type of travel limits congestion and enables the existing transportation infrastructure to move traffic more efficiently. Commuters frequently are the focus of Transportation Demand Management actions because of their regular, predictable driving patterns, the possibilities of employer partnerships and the opportunities for ride-sharing programs.

Transportation Demand Management has assumed a significant role in federal and local transportation policies through regional ridesharing agencies, transportation management associations, employers, local ordinances and development agreements. Transportation Demand Management encompasses both alternatives to driving alone and the techniques or supporting strategies that encourage the use of these modes, tying it closely to transportation energy conservation.

Application of Transportation Demand Management alternatives and supporting strategies can occur at many different levels of government and the private sector.

Common areas for Transportation Demand Management planning are those sites where there are many employers grouped together, such as a central business district, business park or shopping center, as well as large entertainment complexes or areas of highly concentrated housing. These areas highlight Transportation Demand Managements integral relationship with other elements of transportation planning, like access and congestion management.

Transportation Demand Management is also applied on regional basis (i.e. a corridor, such as I-70) where government agencies often direct the initiative. For this type of application the primary focus of the Transportation Demand Management program is to affect as many travelers as possible within the travel region. However experience shows that the effectiveness of regional Transportation Demand Management programs depends greatly on the type and amount of participation by local entities in the region. Development of effective Transportation Demand Management programs therefore should be approached from the perspective of how community leaders, government, citizens, and private commercial and industrial interests can work together to meet the goals of providing greater mobility.

Transportation Demand Management strategies include:

- Public mode support -- Publicly provided alternatives to single- occupant-vehicle travel, including services and facilities that encourage and support other travel modes.
- Employer-based support -- Private-sector programs and services that encourage employees to change their commuting practices; typical TDM alternatives to single-occupant vehicles may include carpools and vanpools; public and private transit, including buspools and shuttles; and nonmotorized travel such as bicycling and walking.
- Telecommunications -- Emerging demand-management solutions that are based on advanced telecommunications technologies.
- Land-use policies, Planning and Zoning - The most effective long-term TDM strategies which have the abilities to shape population density, urban design, land-use mix, travel needs and travel patterns.

- Public policy and regulation -- Restrictions and regulations that govern private vehicle use and provide political support and guidance to new institutional relationships.

*Energy Conservation*

In United States, about half the air pollution comes from cars and trucks. Educating the public on ways to driving less and use smart driving practices reduces emissions.

Some methods of “driving less” are

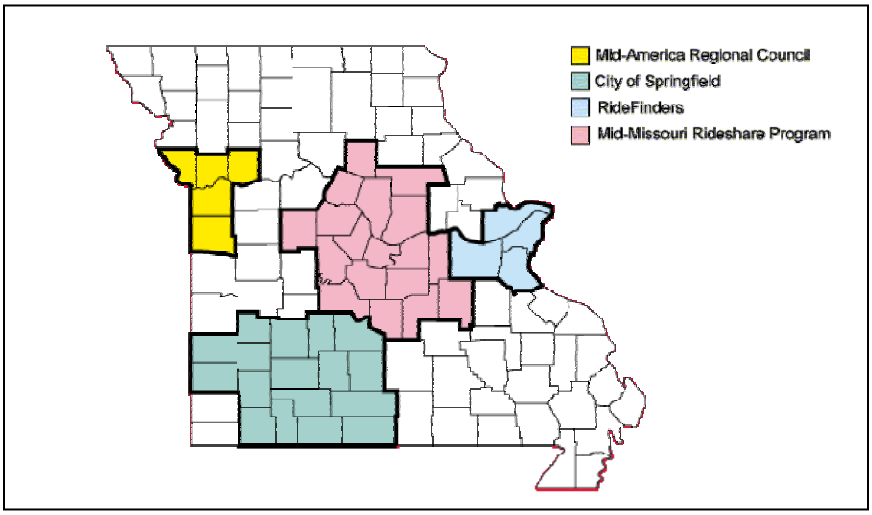
- Carpool

  (Missouri Rideshare and Carpool Programs)

  RIDESHARE is a free publicly funded commuter service designed to inform people about less expensive and environmentally friendly commuting alternatives. These include carpooling, vanpooling, transit program, and employer services such as flextime and telecommuting. MARC Rideshare program serves Cass, Clay, Jackson, Platte, and Ray counties in Missouri and John son, Leavenworth and Wyandotte counties in Kansas. The Mid-Missouri Rideshare Program serves the counties of Audrain, Boone, Callaway, Camden, Cole, Cooper, Crawford, Gasconade, Howard, Maries, Miller, Moniteau, Morgan, Osage, Pettis, Phelps, Pulaski, and Randolph.

  RideFinders is a *free* public service authorized and funded by the Federal Highway Administration for the purpose of lowering the amount of ozone pollution and traffic congestion in the St. Louis Metro area. RideFinders works in partnership with employers and commuters in the region to provide new transportation options that meet the above goals. Free services include carpool matching/vanpool formation and public transit information. RideFinders serves St. Louis City, St. Louis County, Franklin, Jefferson and St. Charles Counties in Missouri and Madison, Monroe, and St. Clair counties in Illinois.

The City of Springfield offers a carpool matching service for the counties of Barry, Barton, Cedar, Christian, Dade, Dallas, Douglas, Greene, Jasper, LaClede, Lawrence, Ozark, Polk, Stone, Taney, Webster, and Wright.




- Walk or ride a bicycle.
- Shop by phone or mail.
- Ride public transit.
- Telecommute.

Some examples of “smart driving” practices are:

- Accelerate gradually.
- Use cruise control on the highway.
- Obey the speed limit.
- Combine errands into one trip.
- Keep vehicles tuned and support the smog check program.
- Don't top off the fuel tank.
- Replace air filters regularly.
- Keep tires properly inflated.

Also, when purchasing a new vehicle, consumers should be encouraged to select the most efficient, lowest polluting model they can find, ideally either a non-polluting car or zero emission vehicle, which typically use “alternative” fuels.

There are many fuels today being used as "alternatives" to gasoline. In most instances, the alternative fuel is less polluting than gasoline, resulting in fewer harmful emissions into the air and a lower negative impact on human health. Many organizations in cities in the United States have voluntarily adopted programs to use alternative fuels in their fleets. These same cities are making efforts to provide the fueling infrastructure necessary to operate alternatively fueled vehicles, which are becoming more and more widely available.

Biofuels are chemicals made from cellulosic biomass such as herbaceous and woody plants, agricultural and forestry residues, and a large portion of municipal solid and industrial waste. The two most common types of biofuels that are being developed and used in the United States. Corn ethanol and soy-based biodiesel burn more cleanly than gasoline and diesel. Their use strengthens rural economies, decreases America's dependence on imported oil, reduces air and water pollution, and reduces greenhouse gas emissions. Biofuels are domestically grown renewable fuels - reducing our reliance on foreign oil.

The Fuel Conservation for State Vehicles, Section 414.400-414.417 RSMo, and the Energy Policy Act establishes opportunities for Missouri state agencies such as MoDot to better manage transportation fuel consumption, reduce waste, and promote the use of cleaner, domestic alternative fuels.

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# CHAPTER 5

**Needs Assessment**

There are many and varied transportation problems (needs) on the region's transportation system. Identifying these needs is a continuous process and crucial for successful planning. Needs are identified from a variety of sources. Needs identification is not financially constrained. This is intended as a guideline and not an exact figure. The intent is to develop a list of all possible needs for evaluation. Although it is not feasible to address all needs, MoDOT has an obligation to consider them all.

There are two types of needs: Physical and Functional.

Physical system needs related to the condition of the pavement and bridges, rough cracking pavement, potholes, etc. Effective management of physical system needs includes preventative maintenance.

Functional needs relate to operational aspects of the transportation system such as congestion, high accident locations, intersections that do not accommodate truck movement, or mobility needs connecting people to jobs and services.

MoDot uses a needs' database to track the State's transportation problems, and these needs are continuously updated at the district level. This needs identification is carried out my MoDOT's district staff, area engineers, and project managers, in conjunction with the RPC's Transportation Advisory Committee (TAC) and other sources of input from the general public.

Identified needs will be prioritized to ensure that the most critical problems are addressed first. The two types of needs, Physical and Functional, will be prioritized using separate processes, outlined in Appendix 3 of Modot's "Missouri Framework for Transportation Planning" (reproduced in the following pages). MoDot and Green Hills RPC (through the TAC) will determine the highest priority

needs - some aspects of the needs prioritization are subjective in nature, and this cooperation will benefit the planning process immensely. This process will be carried out annually.

Like needs identification, needs prioritization is not fiscally constrained, though it is limited to approximately 10 years of construction funds. This constraint is intended as a guideline. Needs selected for preliminary engineering studies will be take from the high priority list. These needs will be fiscally constrained to approximately double the expected funding for a five-year period, and will be eligible to move forward to MoDOTs' project scoping (development) process.

The maps and lists that follow depict those needs identified by the needs assessment process since it was first implemented, as well as maps detailing needs along two corridors that pass through the region; Hwy 65 and Hwy 13.

Following this information is an active list of data collected during the current year in progress. In following years, this data will be integrated into the record and new data will be filed in the active list.

In addition, another transportation needs survey focusing on sidewalks has become part of the RTP process. This survey is designed to inventory the conditions of sidewalks in the region for transportation planning in light of grant programs which can be used to fund sidewalk improvement projects. A map depicting the results of this survey is located at the end of this chapter.

# Missouri Department of Transportation
# District One
# Counties in the Green Hills Region

## Transportation Planning Needs Assessment
## January 2010

**Road Projects Rated Most Needed (In No Particular Order)**

- Resurface of 116 from Polo
- Scoping upgrade of 13 Highway From US 36 southward
- Resurfacing 13 from Hwy 6 to Harrison Co. Border
- Resurfacing of Rt. K in Harrison
- Resurfacing of B in Harrison
- Upgrading shoulders on US 69 in Harrison
- Upgrading the intersection of H & 13 in Harrison County (Safety issue)
- Resurfacing of A in Harrison County

**Bridge Projects Rated Most Needed (In No Particular Order)**

- Replace functionally obsolete bridge on Hwy 13 over Log Creek in Kingston
- Replace the UP railroad bridge on Hwy 13 in Polo
- Replace the functionally obsolete bridge on Hwy 13 over Honey Creek south of Gallatin
- Re-deck the bridge on US 69 over West Fork Big Creek in Harrison County
- Replace the Bridge over Hickory Creek on Rt. H in Harrison County

**All Other reported needs**

**CALDWELL COUNTY**

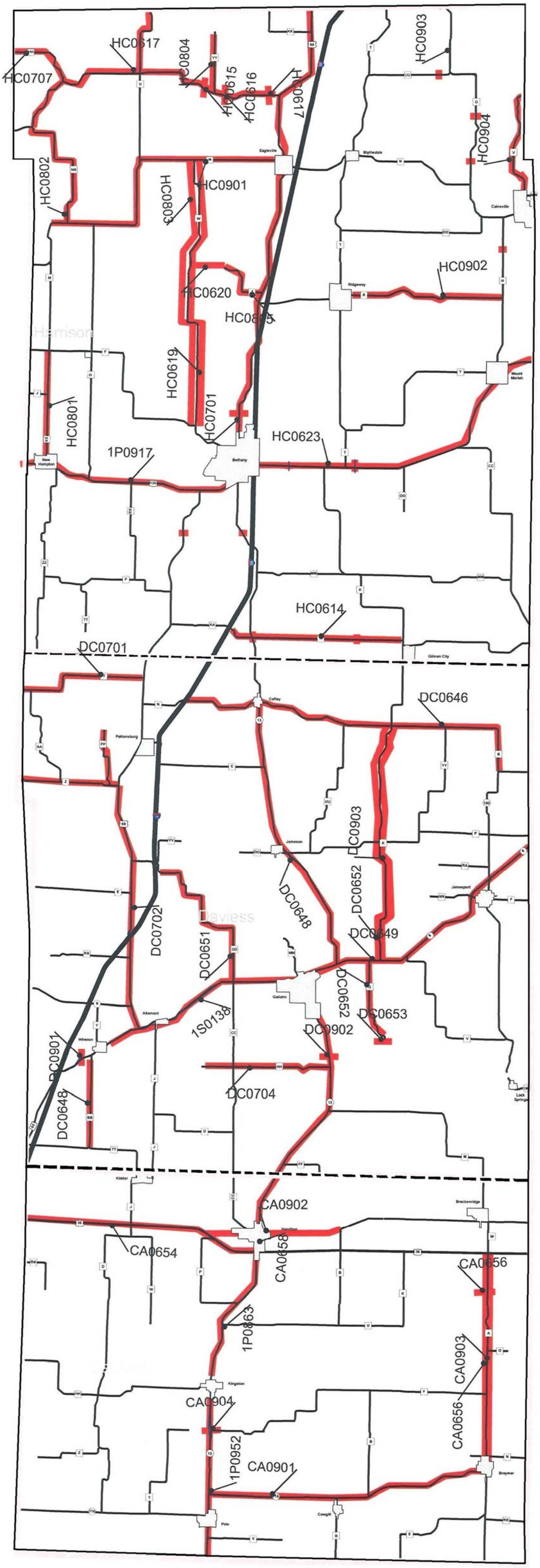
CA0654: Resurfacing and Shoulder Improvement on US Old 36 & BUS 36
CA0901: Resurfacing and Shoulder Improvement on Hwy 116
CA0903: Resurface and Shoulder Improvement on Rt. A
CA0904: Replace Bridge (J0340) over log creek on Mo 13
CA0905: Polo RR Bridge maintenance
CA0906: MAJOR PROJECT - Scoping MO. 13 south of Hwy 36

**DAVIESS COUNTY**

DC0645: Shoulder Improvement on Rt. Z
DC0646: Resurfacing and Shoulder Improvement on Rt. B
DC0647: Resurfacing and Shoulder Improvement on Mo 13
DC0648: Resurfacing on Rt. BB
DC0650: Resurfacing and Shoulder Improvement on Rt. PP
DC0651: Resurfacing on Rt. DD
DC0652: Resurfacing on Rt. K to
DC0701: Resurfacing and Shoulder Improvement on Rt. T
DC0702: Resurface and Shoulder Improvement on US 69
DC0704: Resurface and Shoulder Improvement on HH
DC0902: Repair of exposed bridge tube at Honey Creek on MO 13
DC0903: Resurfacing on Rt. K
DC0904: Bridge over Honey Creek on MO 13 needs maintenance

**HARRISON COUNTY**

HC0611: Provide signage at "T" intersection on US 69
HC0613: Replace narrow bridge (PO177) over Hickory Creek on Rt. H
HC0618: Shoulder Improvements on Mo 46
HC0619: Resurface Rt. W from Rt. F to Rt. M
HC0620: Complete construction of Rt. Z through to Rt. W
HC0621: Re-deck Bridge (L0631) over West Fork Big Creek on US 69
HC0701: Shoulder work from Bethany to Iowa line on US 69
HC0706: Resurfacing and Shoulder Improvement on Rt. U
HC0707: Resurfacing and shoulder improvement on Rt. HH
HC0801: Resurfacing on Rt EE
HC0802: Resurfacing and Shoulder Improvement on Rt. NN
HC0803: Resurfacing on Rt. W
HC0804: Resurfacing on Rt. YY
HC0805: Resurfacing on Rt. Z
HC0901: Resurfacing & shoulder improvements on Rt. M – Eagleville to Worth Co. Line
HC0902: Resurfacing & shoulder improvements on Rt. A from Ridgeway to Rt. B
HC0903: Resurfacing & shoulder improvement on Rt. O from Rt. N to State line
HC0904 :Resurfacing and shoulder improvement on Rt. V from Cainsville to Mercer County line.
HC0905: 3rd Bridge north of Mt. Moriah on Rt. B needs maintenance.
HC0906: Bridge north of Cainsville on Rt. V needs maintenance.
HC0906: Intersection of Rt. H and Hwy 13 has visibility problems (safety issue)
HC0907: Resurfacing Rt. A from Ridgeway to Hwy 69



**4070**

**Carroll County**

CR0623: construct road to direct traffic around rather than through the City of Norborne
CR0265: construct turning lanes at the intersection of County roads 307 & 413 East of Carrollton
CR0626: construct road to divert through traffic around the City of Carrollton
CR0627: resurfacing and shoulder upgrades on US 65 county wide (US 65 Corridor)
CR0701: construct turning Lane for American Energy Producer, on Hwy 65 just south of Rt. Z
CR0702: construct turning lane on US 24 for Ray-Carroll Elevator and Show-Me Ethanol plant
CR0703: upgrade Mo 10 between Carrollton and Norborne, elevating flood prone sections
CR0901: resurfacing and shoulder improvements on Hwy 24 from Hwy 65 one mile eastward
CR0902: resurfacing and shoulder improvements on Hwy 10 from Norborne to the Ray County Line

**Chariton County**

CH0601: shoulder upgrade on US 24
CH0602: shoulder upgrade on MO 5 from Keytesville to the Linn County line
CH0603: realignment and elevation of a section of Hwy 129
CH0604: realignment of a section of Hwy 129
CH0606: replacement of bridge over Puzzle Creek on Rt. P
CH0628: elevation of a section of Rt. D
CH0701: widen bridge on the west edge of Keytesville on US 24 to make it safer for buggy traffic
CH0702: resurfacing and shoulder upgrades to Rt. P from Lagonda to Hwy 129
CH0704: elevation of flood prone section of Hwy 139 east of Sumner to Rt. YY
CH0801: guardrail needed on North approach to Chariton River bridge north of Salisbury on Hwy 129

**Grundy County**

GC0727: resurfacing and shoulder upgrades on US 65 countywide
GC0627: resurfacing and shoulder upgrades on Hwy 6 countywide
GC0629: maintenance to drainage tubes at intersection of 9th and Harris in Trenton
GC0901: make Hwy 65 four lanes between Trenton and Chillicothe
GC1001: Overlay Iowa Blvd. and Hwy 6 ROW on the edge of Trenton for new Hospital and Barton Campus
GC1002: Install Intersection traffic lights at 9th & Kitty St. in Trenton

**Linn County**

LN0634: replace bridge over Parsons Creek on Hwy 139
LN0635: replace bridge over Locust Creek on Rt. B
LN0636: resurfacing and shoulder upgrades on Rt. P
LN0637: replace bridge over Long Branch on Rt. C
LN0638: resurfacing, shoulder upgrade to Hwy 5
LN0639: replace bridge over West Yellow Creek on Rt. C
LNO640: replace bridge over Sights Branch on Rt. U
LNO641: replace bridge over Clarks' creek on Rt. WW
LN0642: replace bridge over Van Dorsen Creek on Rt. WW
LN0643: replace bridge over Mussel Fork on WW
LN0644: shoulder work on US 36
LN0703: more frequent maintenance needed on Mo 5 from US 36 to Sullivan County line
LN0901: flood prone bridge between Hwy 11 & Shelby on Rt. C needs to be elevated

LN0902: replace bridge over Locust Creek west of Linneus on Rt. B

**Livingston County**

LV0701: replace single lane bridge over Shoal Creek north of Dawn on Rt. C
LV0702: intersection of Hwy 190 & Hornet Dr. at the Chillicothe High school needs signals
LV0703: shoulder upgrade on Hwy 190
LV0704: shoulder upgrade on Rt. V
LV0705: construct overpass walkway from YMCA building to Simpson Park needed over US 65
LV0706: convert County Rd. 216 to blacktop between Rt. B and US 65 (making it part of Rt. B)
LV0801: construct bike/pedestrian paths along 190 in the vicinity of the City of Chillicothe
LV0902: develop abandoned railroads into walking/biking trails

**Mercer County**

MC0629: resurfacing and shoulder upgrade on Rt. Z
MC0630: replace narrow bridge over West Honey Creek on Rt. E
MC0631: replace narrow bridge over Little Medicine Creek on Rt. E
MC0634: resurfacing and shoulder work on Hwy 136 from Harrison to Putnam County lines
MC0701: replace bridge over Muddy Creek, on Rt. E 1.3 miles west of US 65

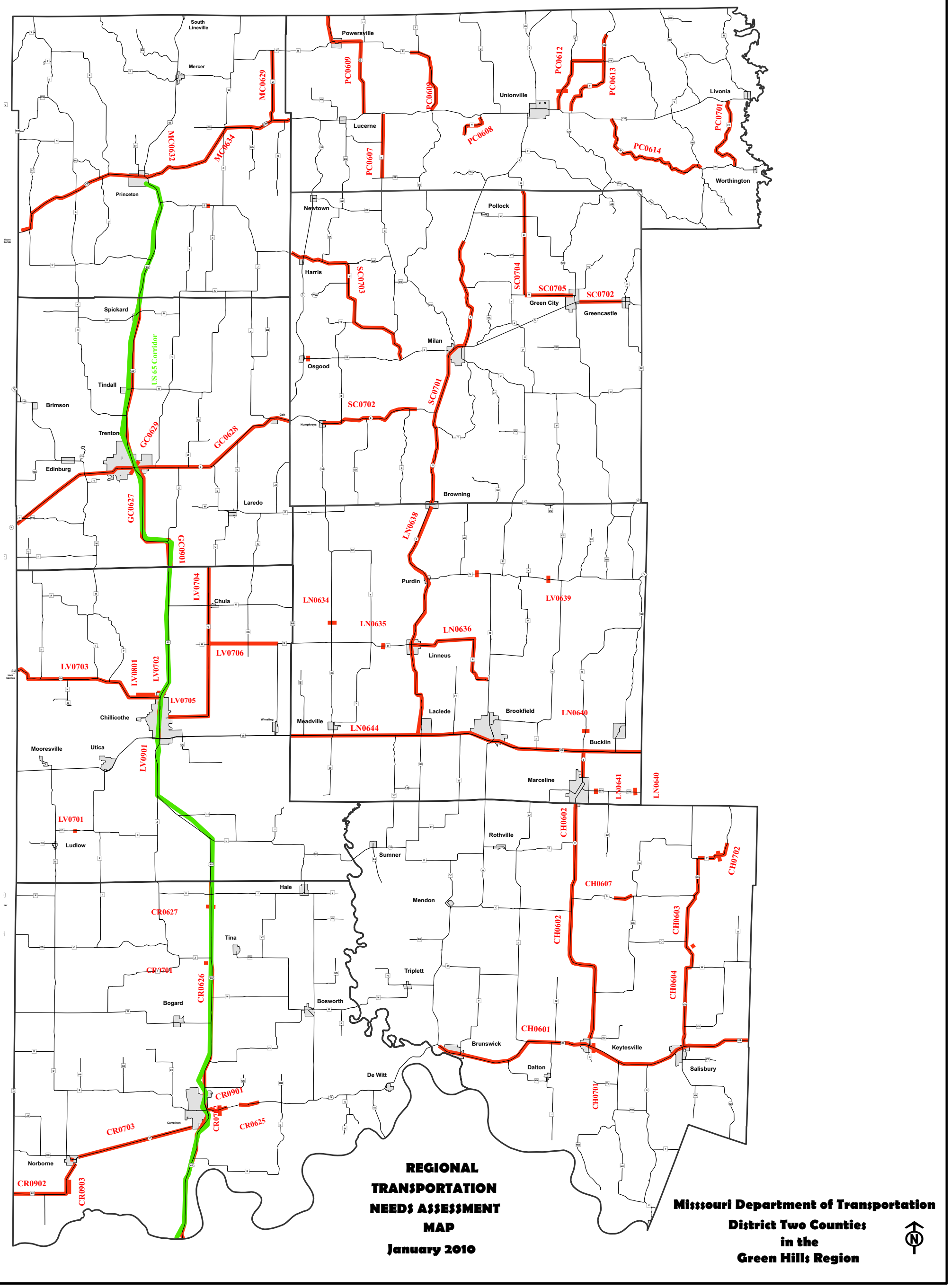
**Putnam County**

PC0606: replace bridge over North Blackbird creek on Hwy 129
PC0607: resurfacing and should upgrades on Rt. K from Hwy 136 southward to the first county road
PC0608: convert Rt. H from blacktop to gravel
PC0609: resurfacing and shoulder upgrades on Hwy 139 from Hwy 136 northward to the Iowa line
PC0610: resurfacing and shoulder upgrades on Rt. E from Hwy 136 northward to St. John
PC0611: resurfacing and shoulder upgrades on Rt. K from Hwy 136 southward to Rt. EE
PC0612: resurfacing and shoulder upgrades on Hwy 129 from Hwy 136 northward to Rt. Y
PC0613: resurfacing and shoulder upgrades on Rt. Y from Hwy 136 northward to Mendota
PC0614: resurfacing and shoulder upgrades on Rt. W from Hwy 136 southward to Martinstown
PC0700: resurfacing and shoulder upgrades on Rt. FF from Hwy 136 southward to Worthington

**Sullivan County**

SC0701: resurfacing and shoulder upgrades on Hwy 5 from 3 miles north of Browning to 3 miles south of Pollock
SC0702: resurfacing and shoulder upgrades on Hwy 6 from Humphreys to Reger and Green City to Novinger
SC0703: resurfacing and shoulder upgrades on Rt. E to accommodate heavy commercial traffic
SC0603: resurfacing and shoulder upgrades on Rt. B from Lemons to Rt. N
SC0704: resurfacing and shoulder upgrades to Rt. N from Rt. B to Green City
SC0901: road widening and shoulder upgrade to Rt. B
SC0902: resurfacing and shoulder upgrades to Rt. E
SC0903: replace narrow bridge over Medicine Creek on Rt. PP
SC0904: resurfacing and shoulder upgrade on Hwy 5 from Putnam Co. line to Milan and Hwy 6 Jct. to Linn Co. Line
SC0905: replace bridges on Hwy 5 north of Milan with culverts

SC0907: Install flashing red/yellow light at the Jct. of 5 & 6 on the east edge of Milan




# REGIONAL TRANSPORTATION NEEDS ASSESSMENT MAP

January 2010

Misssouri Department of Transportation

District Two Counties in the Green Hills Region

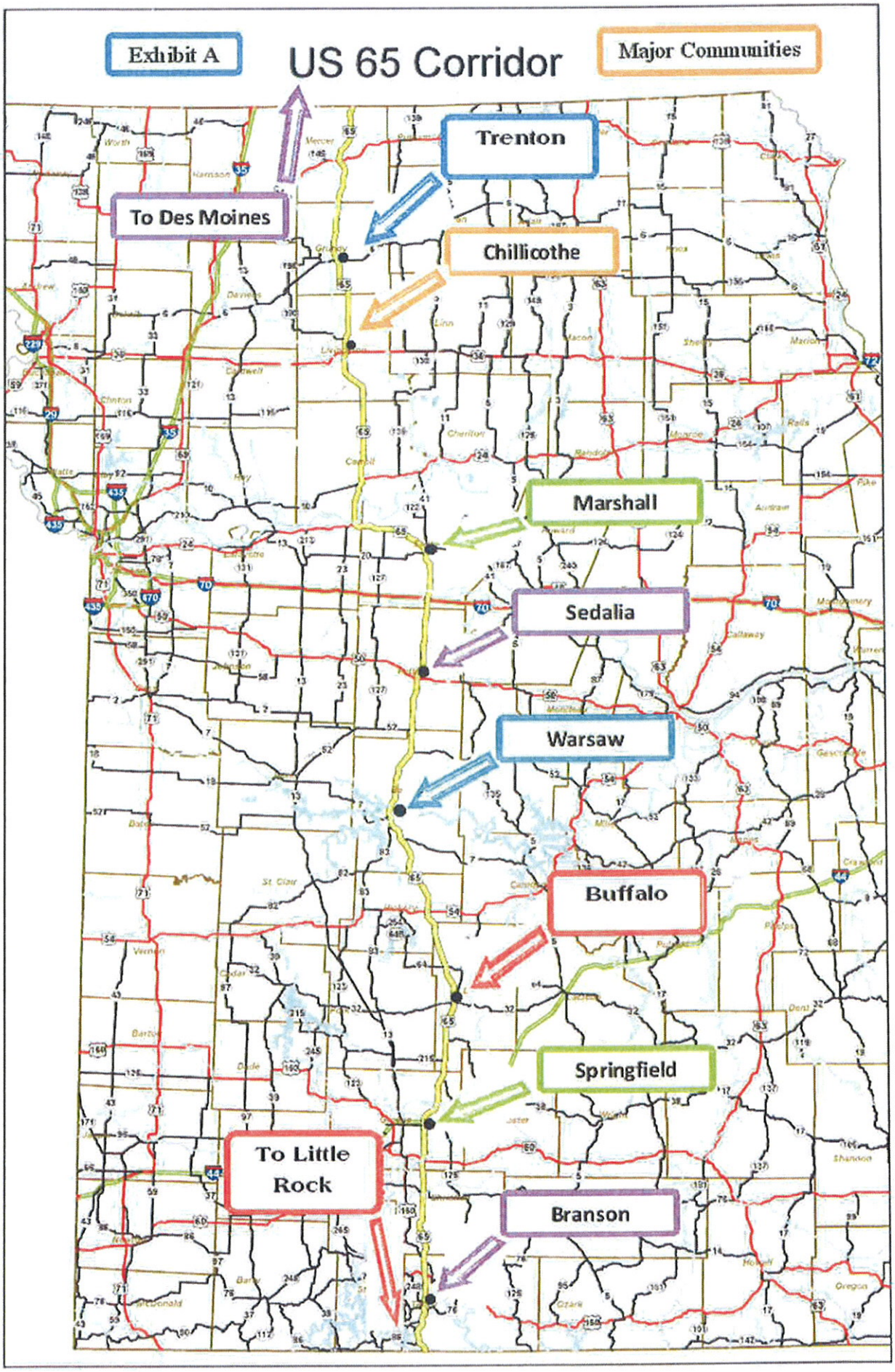


Exhibit A
US 65 Corridor
Major Communities
Trenton
To Des Moines
Chillicothe
Marshall
Sedalia
Warsaw
Buffalo
Springfield
To Little Rock
Branson

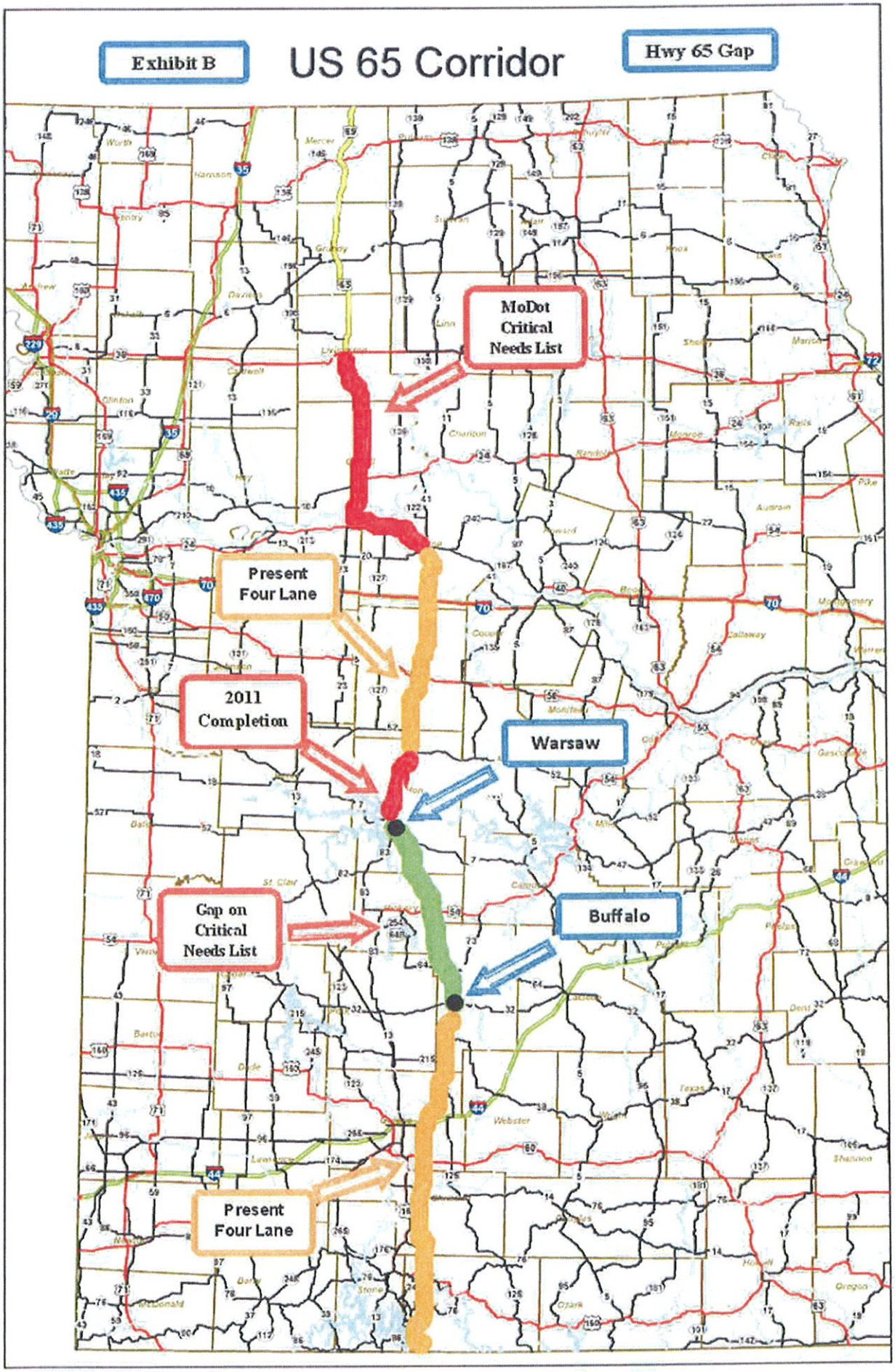


Exhibit B
US 65 Corridor
Hwy 65 Gap
MoDot Critical Needs List
Present Four Lane
2011 Completion
Warsaw
Gap on Critical Needs List
Buffalo
Present Four Lane

# MCDC/OSEDA Missouri County Data Map

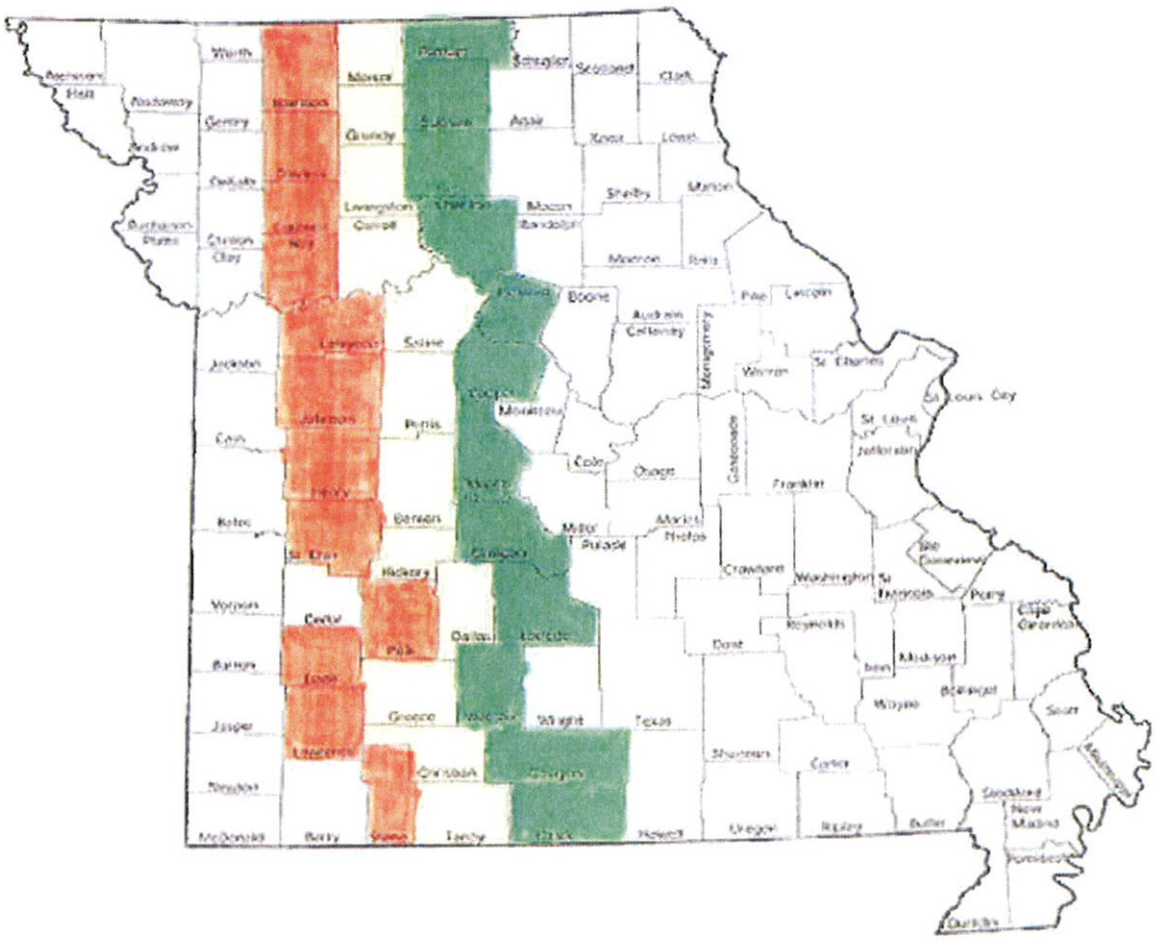


**Exhibit C**

**County Population**

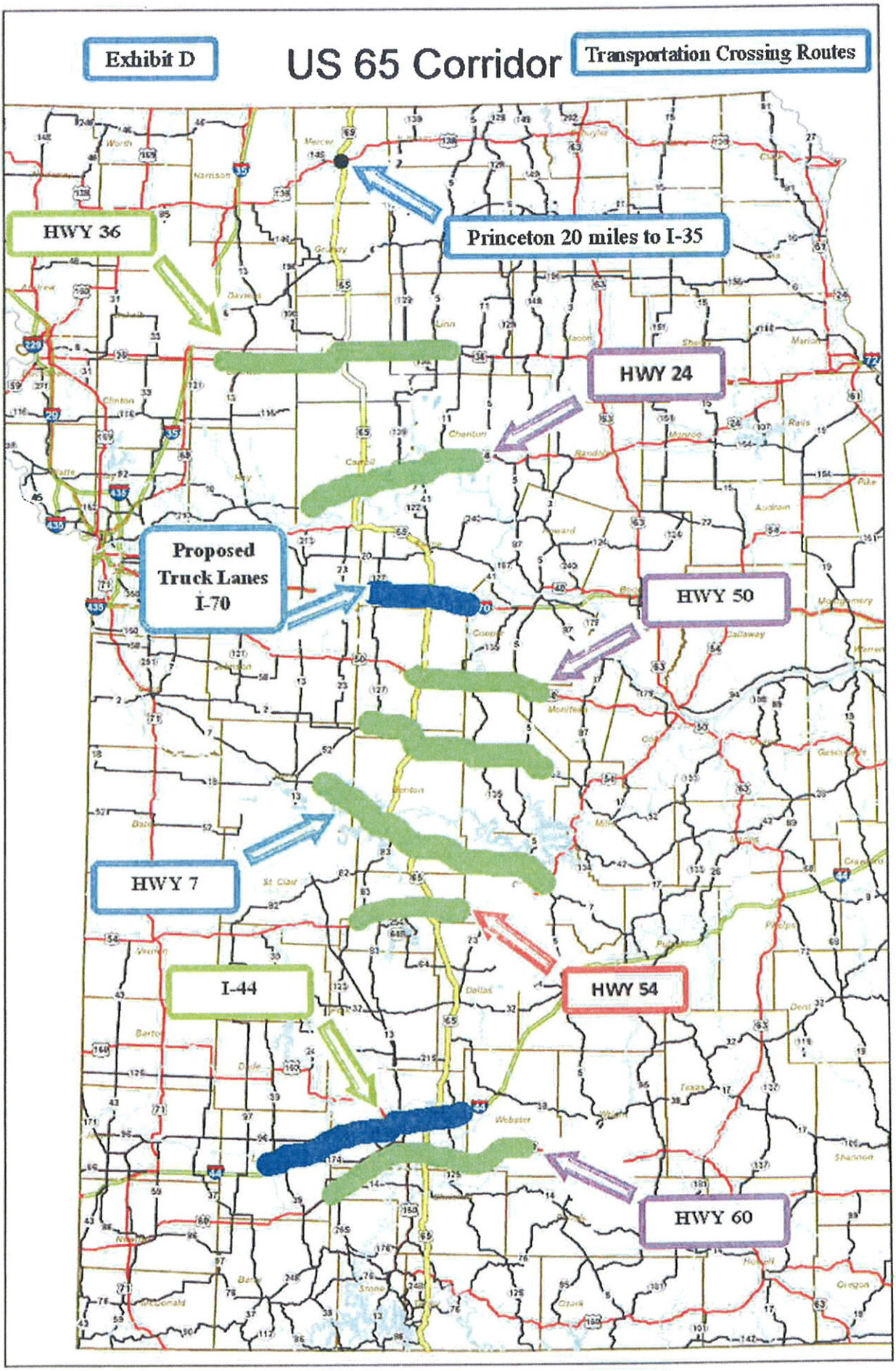


Exhibit D
US 65 Corridor
Transportation Crossing Routes
HWY 36
Princeton 20 miles to I-35
HWY 24
Proposed
Truck Lanes
I-70
HWY 50
HWY 7
I-44
HWY 54
HWY 60

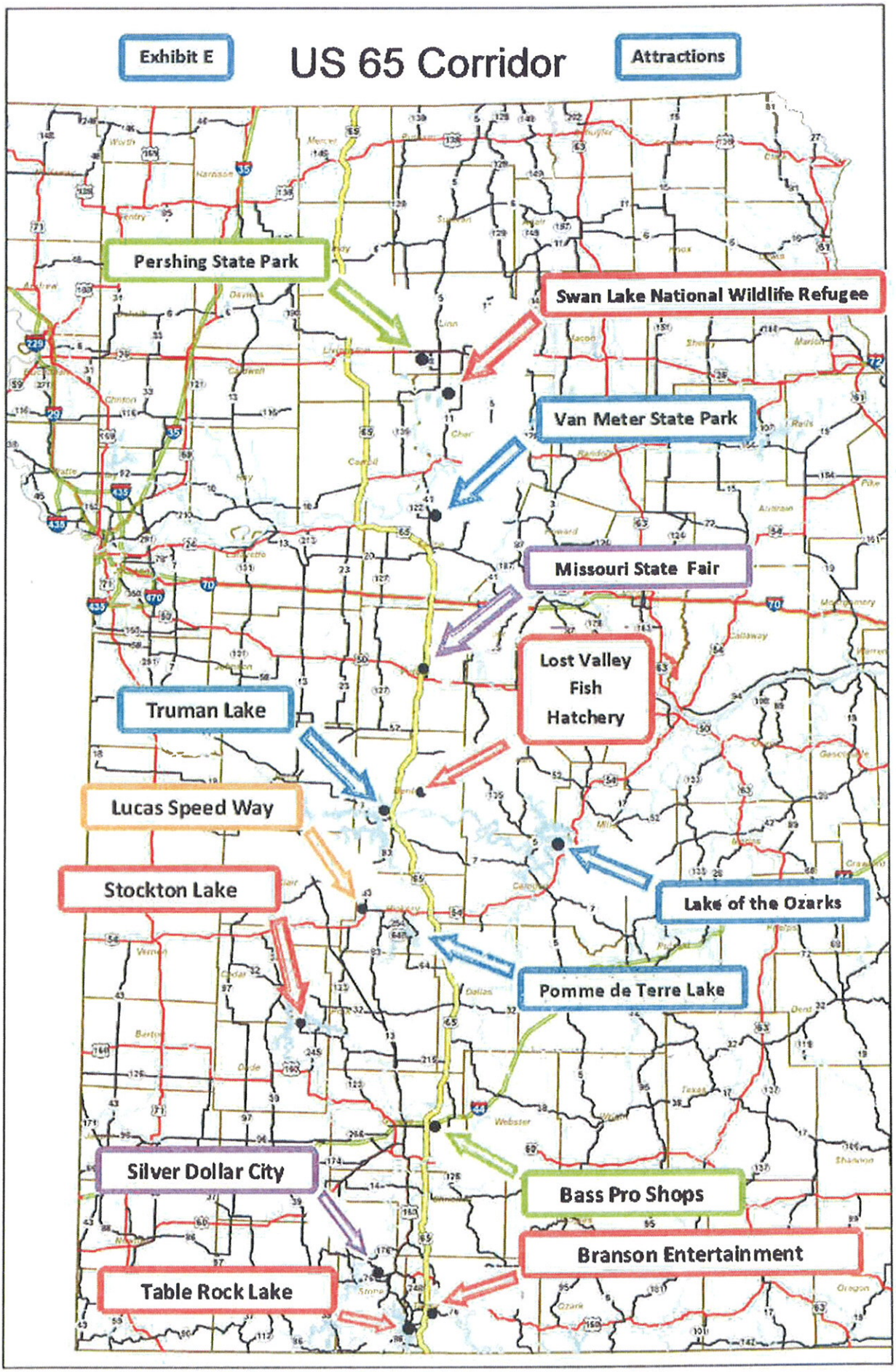
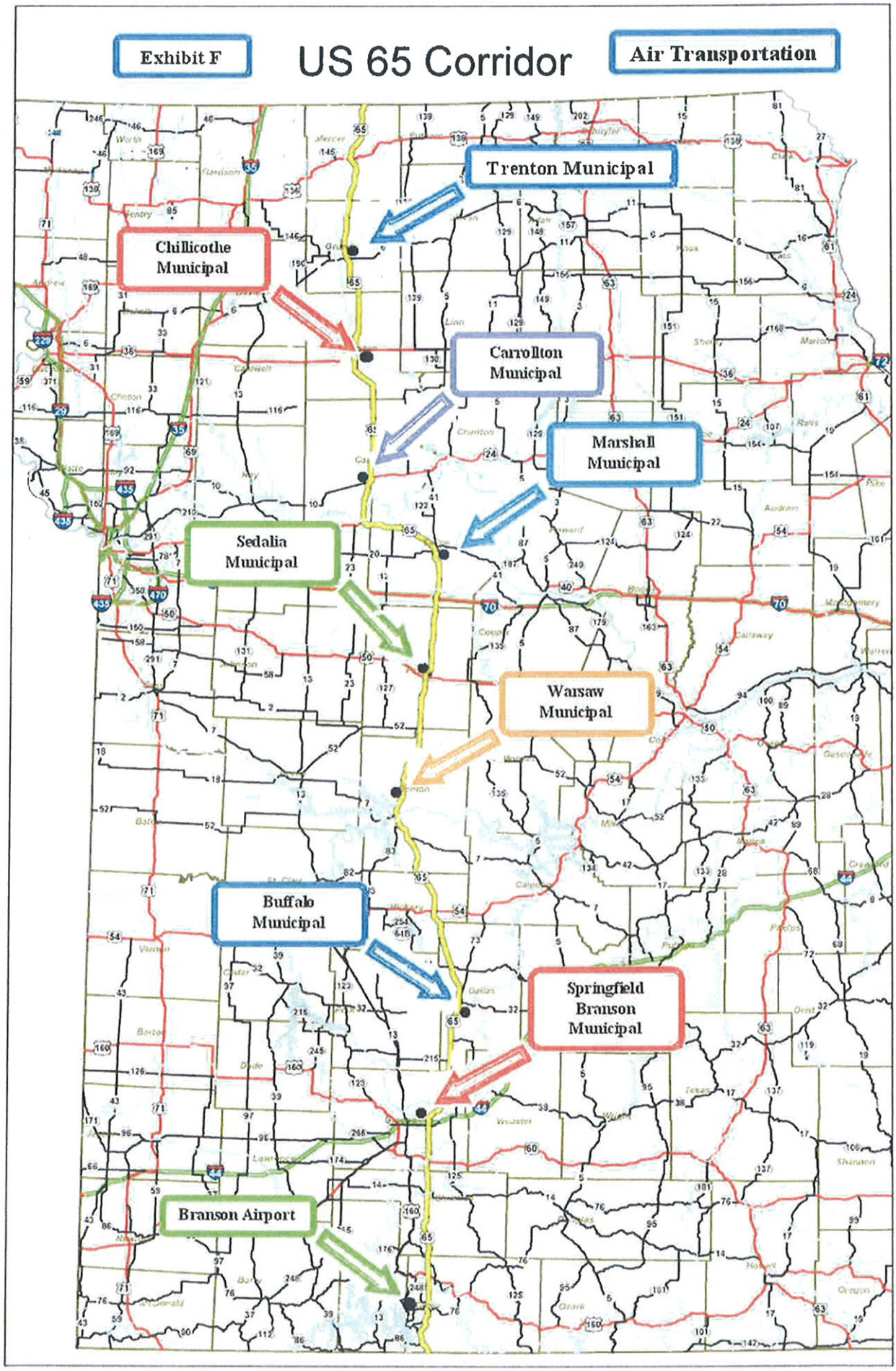


Exhibit E
US 65 Corridor
Attractions
Pershing State Park
Swan Lake National Wildlife Refugee
Van Meter State Park
Missouri State Fair
Lost Valley Fish Hatchery
Truman Lake
Lucas Speed Way
Stockton Lake
Lake of the Ozarks
Pomme de Terre Lake
Silver Dollar City
Bass Pro Shops
Branson Entertainment
Table Rock Lake

Exhibit F

# US 65 Corridor

Air Transportation



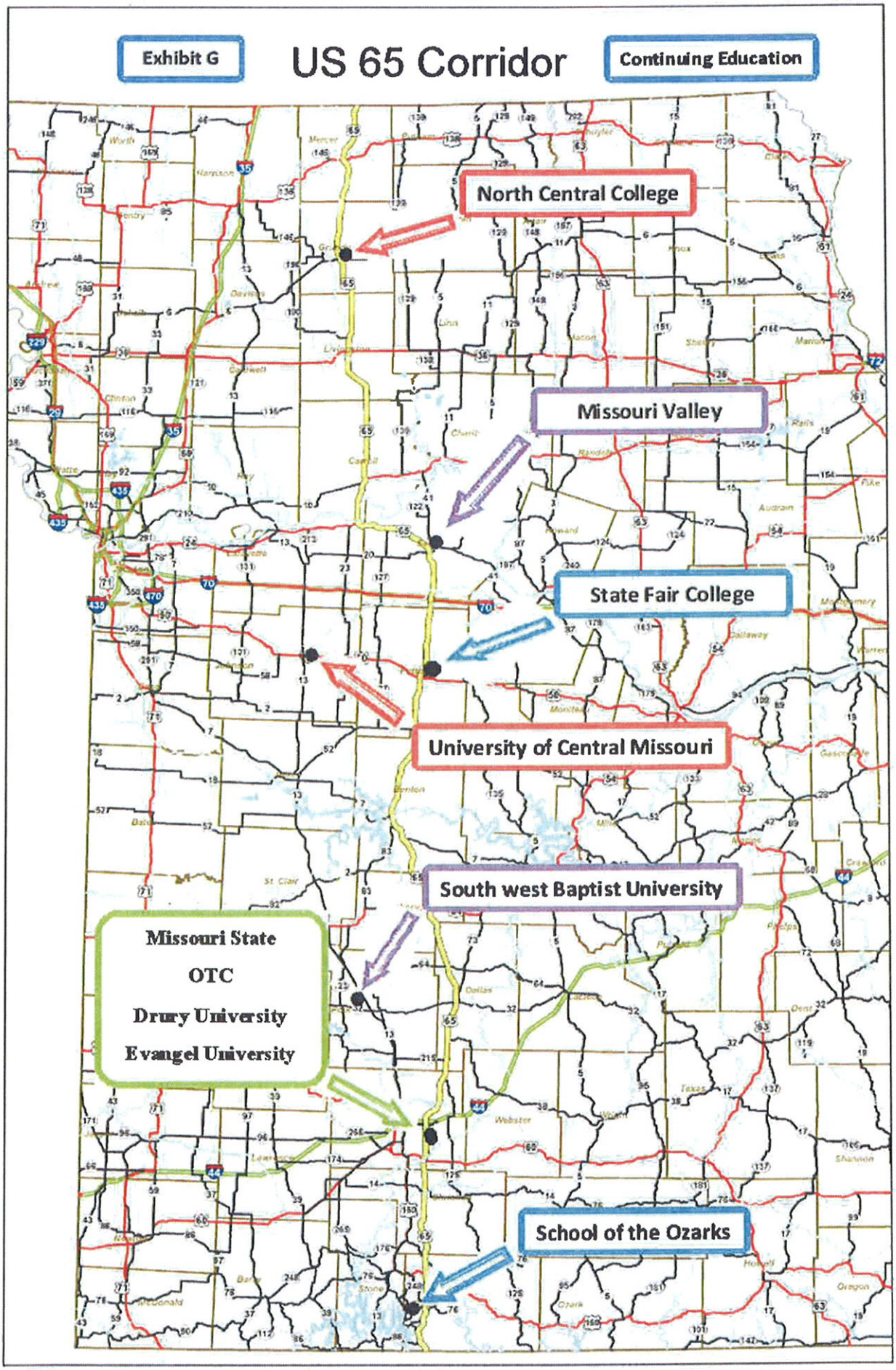


Exhibit G
US 65 Corridor
Continuing Education
North Central College
Missouri Valley
State Fair College
University of Central Missouri
South west Baptist University
Missouri State
OTC
Drury University
Evangel University
School of the Ozarks

# Missouri Highway 13 Corridor Information Sheet

**MO Hwy 13 Corridor Committee Membership.**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**MO Hwy 13 Corridor Committee.**

***Caldwell, Henry, Johnson, Lafayette, and Ray counties***

The MO Hwy 13 Corridor Committee is an advocacy coalition of Caldwell, Henry, Johnson, Lafayette and Ray counties. Our single objective is to advance MO Hwy 13 as a transportation corridor of statewide importance.

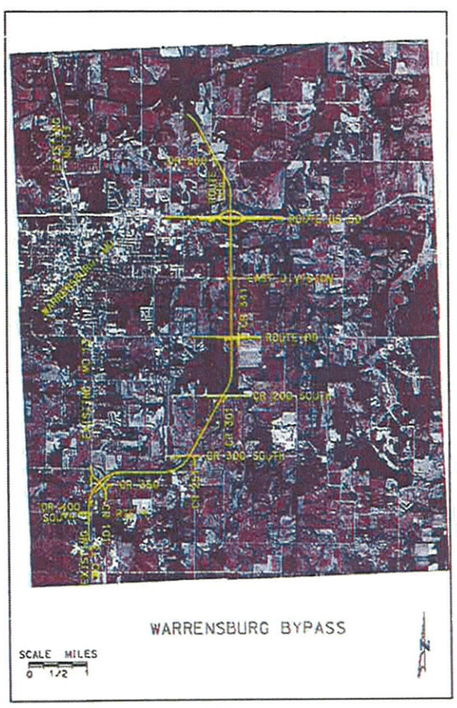
Our committee is supported by the Pioneer Trails Regional Planning Commission. We maintain a cooperative relationship with the Green Hills Regional Planning Commission, Kaysinger Basin Regional Planning Commission, Mid-America Regional Council (MARC), and the Missouri Department of Transportation (MoDOT). The committee is comprised of three volunteer representatives from each county, appointed by the respective county commissions.

Our committee is concerned about immediate improvements to MO Hwy 13, but takes a long-term view as well, recognizing that it may take 20 years or more to fully realize a forward-looking vision for this transportation corridor. We embrace the truth that a valid vision for the future of the MO Hwy 13 Corridor must consider its impact on those who live and work along the corridor and depend upon it as an economic and transportation lifeline.

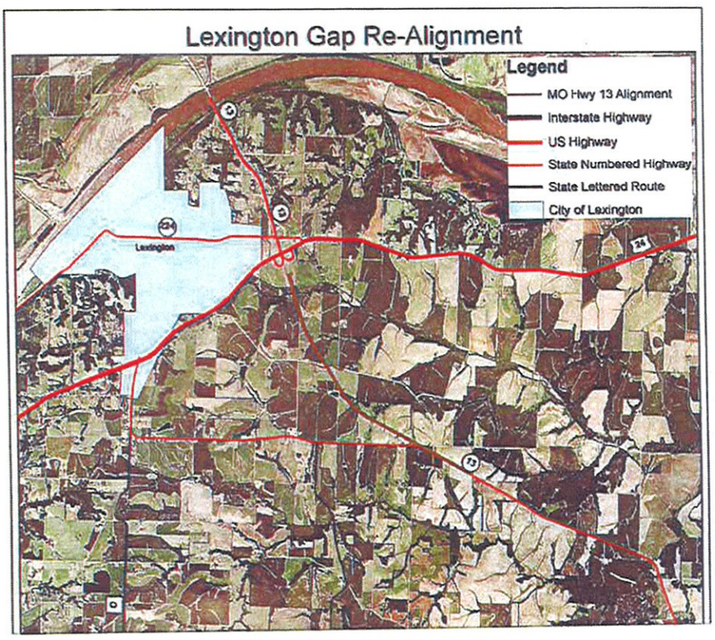
MoDOT has responded positively to the development of Hwy 13 as an important north-south corridor of statewide importance. Consider the recently completed four-lane section of Hwy 13 from Hwy 7 at Clinton to I-44 at Springfield. The Hwy 13 Ike Skelton Bridge is the only four-lane crossing of the Missouri River between metropolitan Kansas City and the I-70 bridge near Columbia.

The MO Hwy 13 Committee envisions further four-lane development of Hwy 13 north from Clinton to I-35. If constructed, this roadway would create a north-south economic thoroughfare of vital importance.

Even in its current condition, MO Hwy 13 carries significant volumes of traffic, much of it along roadway deficient of current safety standards. An improved MO Hwy 13 means fewer traffic fatalities and injuries, the highest priority of our committee.




Progress on Route 13 East Loop, Warrensburg, MO




**What is being done now?**

Construction is underway on the Gap Project in Lafayette County, linking the Ike Skelton Bridge to Hwy 13 South.

The Hwy 13 Loop around Warrensburg is under construction.

All of Hwy 13 from Lexington to Clinton has been resurfaced with the addition of paved shoulders and rumble strips.

These projects, together with the four-lane construction from Richmond to Lexington, including the Ike Skelton Bridge, represent a $172.681 million investment in Hwy 13.

**What out the future?**

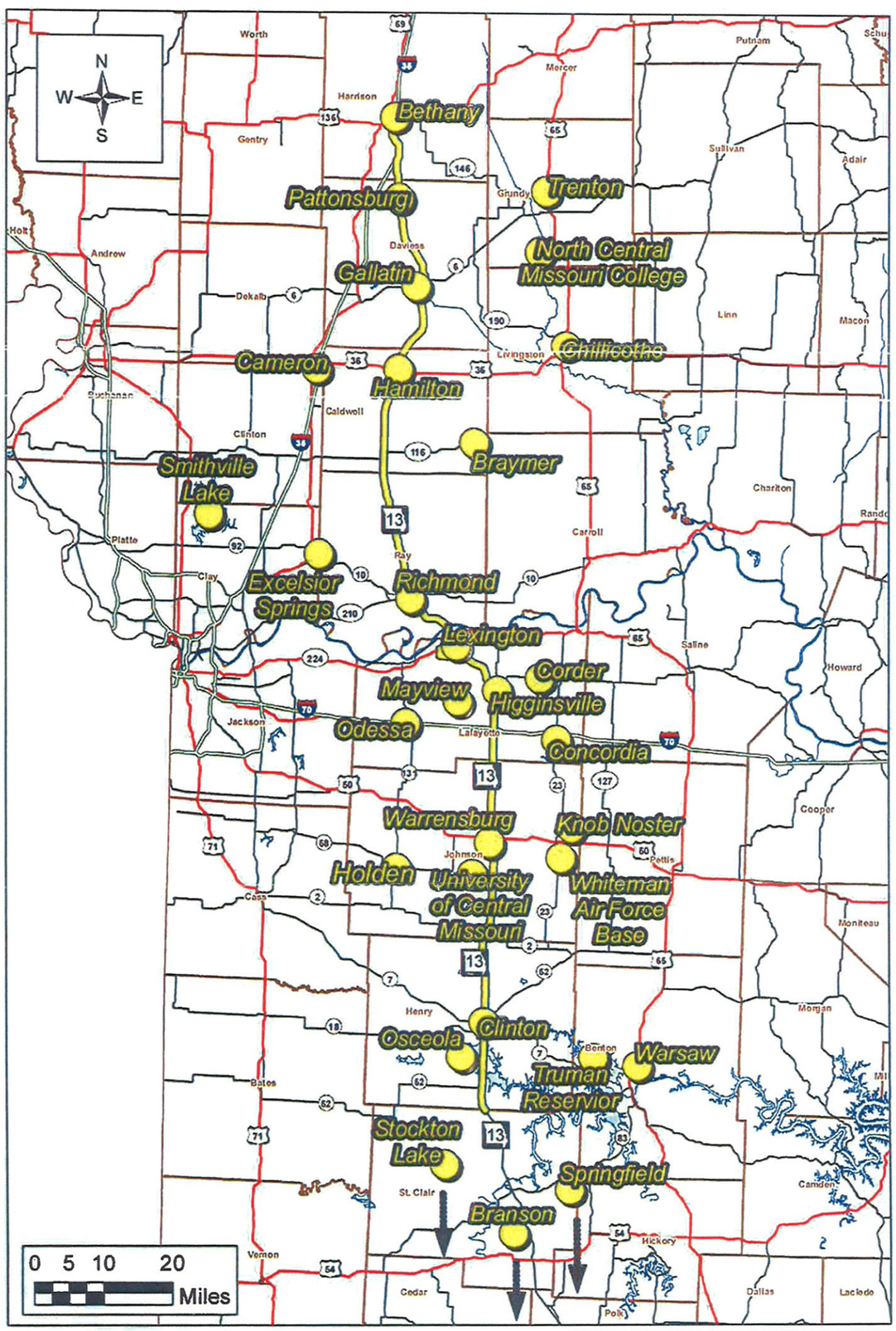
The future depends on advocacy and funding.

MoDOT has implemented a rational and well organized process to involve Missouri citizens in setting transportation maintenance and expansion priorities. Its regional planning partners (the regional planning commissions) are an important part of this process. Your MO Hwy 13 Committee is pleased to be a part of this process. Every project, big and small, must compete with many other worthy projects in order to receive funding. Small, particularly safety-related, projects may receive funding with community support. Large improvement projects, such as envisioned by the MO Hwy 13 Committee, require both local support along the corridor and strong evidence of statewide importance. That is, they must deliver value to all Missouri citizens. Your support of our advocacy for MO Hwy 13 development is vital.

Even if a project rises to statewide importance, nothing can be done without funding. Much of the advancement of Hwy 13 has been funded by Amendment 3 funds. Those funds are now exhausted. The future depends on new funding.

MoDOT is primarily funded by fuel taxes. These taxes (gasoline and diesel), which are among the lowest of state fuel taxes, are not traditional sales taxes but fixed pennies per gallon. MoDOT tax revenue is actually falling because, with higher mileage vehicles, the volume of fuel sales is declining. This is good for our environment but less than good for the future of our transportation infrastructure. If we are to continue to build the transportation lifeline of our economy, we must create and support new sources of revenue.

# MO Hwy 13 Corridor Destinations




## Learn More.

To learn more, visit MoDOT on the internet at:
http://www.modot.mo.gov

To learn more about MO Hwy 13 projects visit:
http://www.modot.mo.gov/kansascity/major_projects/Route13/Route13.htm

## Contact Us.

We care about what you think.

To share your thinking about MO Hwy 13, contact our chair Bill Bernier.

You can reach him by telephone at:
(660) 747-2222 Ext. 1

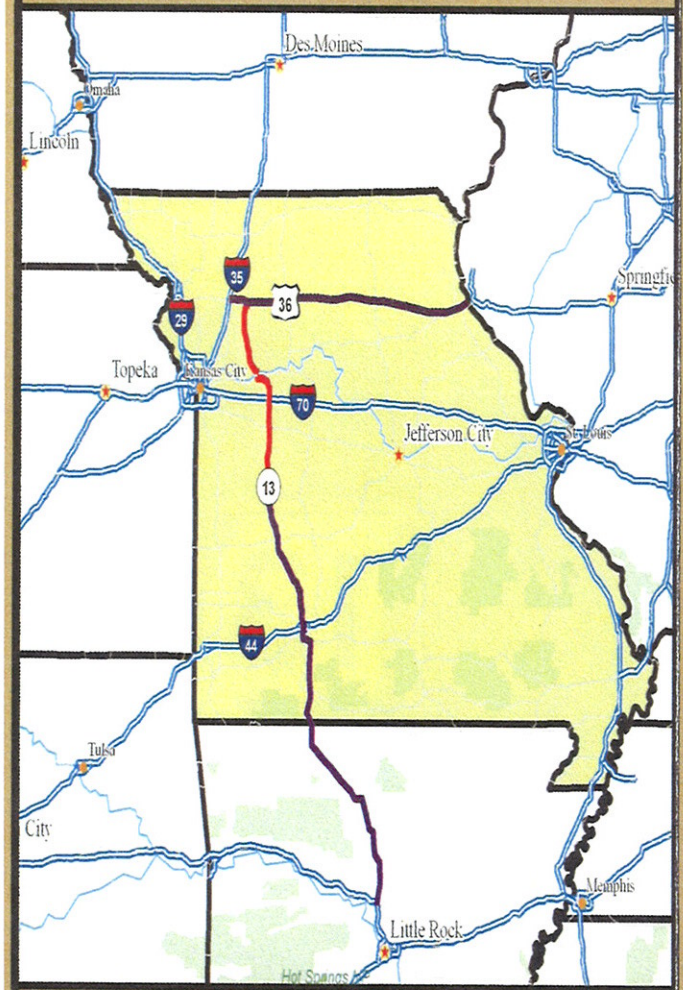
Or by e-mail at:
wpbernier@gmail.com

## Thank You.

Thank you for your interest and your willingness to share your ideas on MO Hwy 13!

Pioneer Trails
REGIONAL
PLANNING
COMMISSION

# Highway 13- State of Missouri

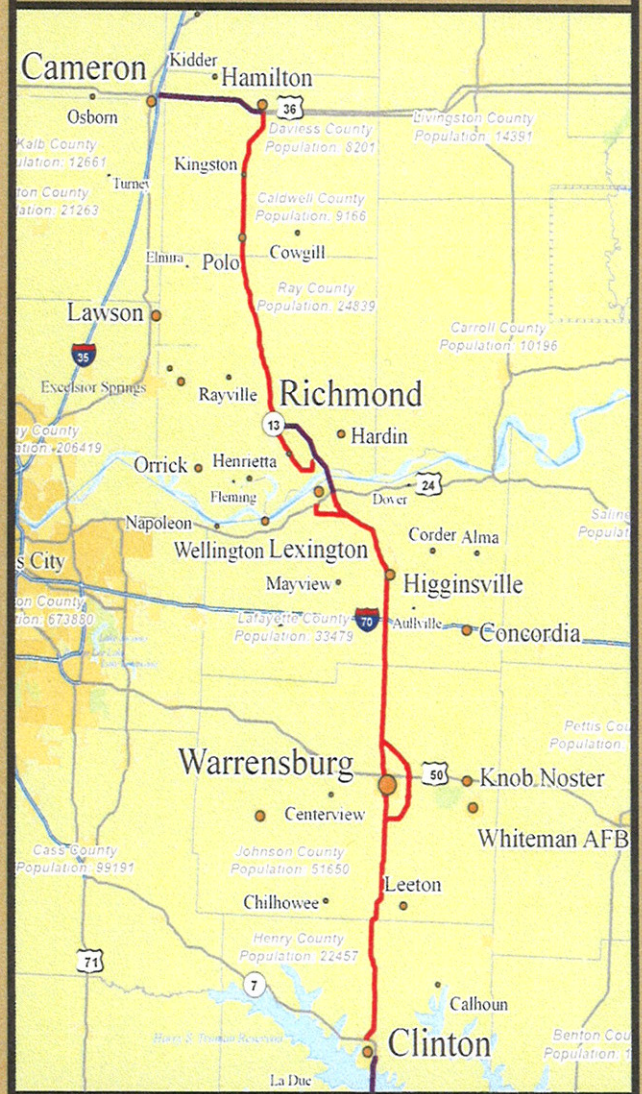



*There is no four-lane connecting route between the Ozarks and the northern Midwestern states. MO Hwy 13 would provide a much needed expressway to the Lake of the Ozarks, Springfield and Branson.*

# Highway 13- Springfield to Hamilton


# Highway 13- Focus Area Clinton to Hamilton

*The environmental impact study from Clinton to Richmond is complete, as well as the Congressman Ike Skelton Bridge crossing the Missouri River.*



# MO Hwy 13– Four Lane - Springfield to Hamilton

**The most economical approach to building a full four-lane north/south corridor in West-Central Missouri is MO Hwy 13.**

**MO Hwy 13 is of major importance to all Missourians because:**

MO Hwy 13 links the Kansas City and Springfield metropolitan areas.

MO Hwy 13 with four lanes will spur economic development on the Missouri side of metropolitan Kansas City.

MO Hwy 13 has a four-lane bridge over the Missouri River.

MO Hwy 13 with four lanes creates a US 65 – MO 13 – US 36 – I-44 four-lane thoroughfare for complete north/south commerce in western Missouri.

MO Hwy 13 serves 28 hospitals in Missouri.

MO Hwy 13 serves 13 colleges and universities in Missouri.

MO Hwy 13 serves Truman, Stockton and Pomme de Terre lakes.

MO Hwy 13 serves Whiteman Air Force Base.

MO Hwy 13 touches 12 counties in Missouri with a combined population of 570,000.

***The environmental impact study from Clinton to Richmond is complete.***

## The MO Hwy 13 Corridor Coalition

The MO Hwy 13 Corridor Coalition involves Caldwell, Henry, Johnson, Lafayette and Ray counties. Our single objective is to advance MO Hwy 13 as a transportation corridor of statewide importance.

Our coalition maintains a cooperative relationship with four MoDOT affiliated regional planning councils including: Green Hills Regional Planning Commission, Kaysinger Basin Regional Planning Commission, Mid-America Regional Council (MARC) and Pioneer Trails Regional Planning Commission. The Pioneer Trails Regional Planning Commission office provides administrative support. Our envisioned MO Hwy 13 corridor improvements involve Missouri Department of Transportation (MoDOT) Districts 2 and 4. It is guided by a committee comprised of three volunteer representatives from each county, appointed by the respective county commissions.

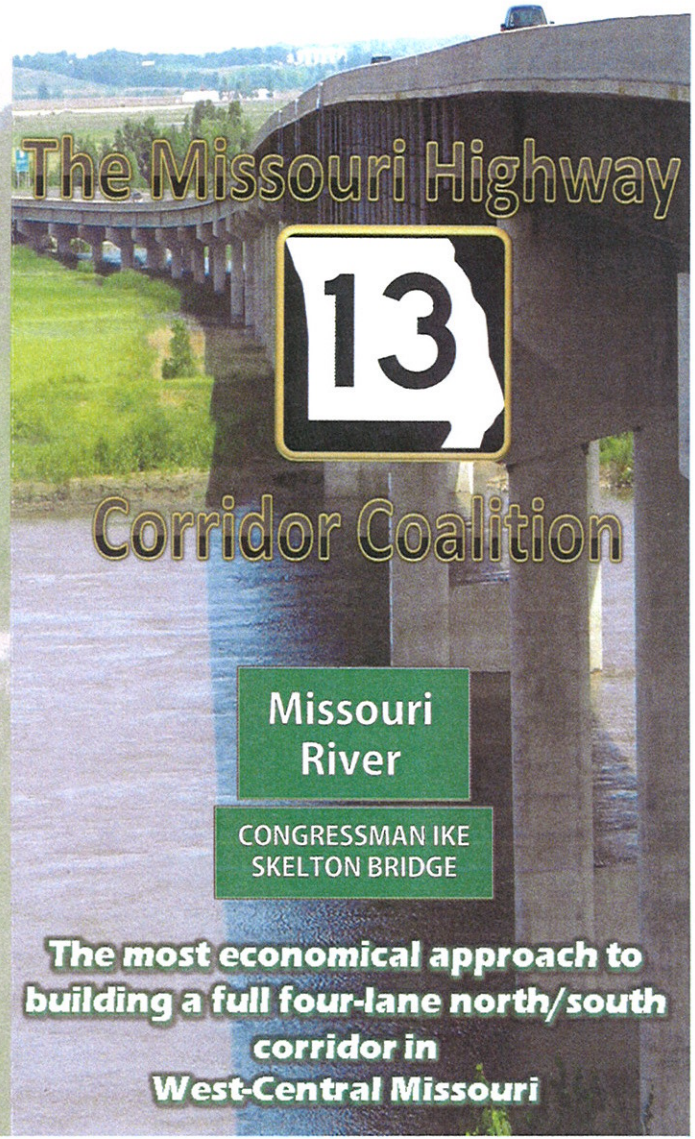
Meeting times and locations are available from the Pioneer Trails Regional Planning Commission office: 802 South Gordon, Concordia, MO 64020, Telephone: (660) 463-7934, Web: www.trailsrpc.org (click on Meetings).

***Contact: Bill Bernier, Chairman***

***Phone: (660) 747-2222***

***E-mail: wpbernier@gmail.com***

# A VISION FOR MISSOURI TRANSPORTATION



# ANNUAL GREEN HILLS REGIONAL TRNASPORTION NEEDS ASSESSMENT

CURRENT EFFECTIVE DATE
ARPIL 2011

Produced by
The Green Hills Regional Planning Commission

CALDWELL COUNTY

**No additional data**

## CARROLL COUNTY

County: Carroll Source: RTP Needs Assessment 2011
Rt: Hwy 10 Project No:
Project Date: --

Description: Highway 10 has two areas that are prone to frequent flooding; the total length of both areas is about 3,000 ft. Both have levees on the south side of the road (the amount of fill at the lowest points would be approximately 3 feet) and are routinely flooded by backwater, closing Hwy 10 completely four to six times a year, impacting not only normal traffic patterns but emergency response as well. These areas are: 1) The WB Junction approximately 2 miles west of Carrollton and 2) another point located 2 miles west of the WB Junction point.

## CHARITON COUNTY

**No additional data**

## DAVIESS COUNTY

County: Daviess Source: RTP Needs Assessment 11
Rt: P Project No:
Project Date: --
Description: Road bed crowning, dangerous potholes. Needs fill and resurfacing

County: Daviess Source: RTP Needs Assessment 11
Rt: YY Project No:
Project Date: --
Description: Road bed deteriorating, dangerous pot holes. Needs fill and resurfacing.

County: Daviess Source: RTP Needs Assessment 11
Rt: K Project No:
Project Date: --
Description: Dangerous pot holes, needs fill and resurfacing

County: Daviess Source: RTP Needs Assessment 11
Rt:HH Project No:
Project Date: --
Description: Road bed deteriorating, dangerous potholes. Needs fill and resurfacing.

County: Daviess Source: RTP Needs Assessment 11
Rt: 13 Project No:
Project Date: --
Description: Bridge over Honey Creek, approximately 2 Miles south of Gallatin. Needs replaced.

## GRUNDY COUNTY

**No additional data**

## HARRISON COUNTY

**No additional data**

## LINN COUNTY

County: Linn Source: RTP Needs Assessment 2011
Rt: B Project No:
Project Date: --
Description: Bridge over locust creek 2 miles west of Linneus dilapidated and narrow, needs replaced.

County: Linn Source: RTP Needs Assessment 2011
Rt: C Project No:
Project Date: --
Description: Roadway immediately west of the bridge over Yellow Creek needs to be raised from its current elevation, which is lower than that of the surrounding area. This elevation difference results in frequent flooding which closes the road.

## LIVINGSTON COUNTY

County: Livingston Source: RTP Needs Assessment 2011
Rt: Hwy 65 Project No:
(Washington St. in Chillicothe)
Project Date: --
Description: Currently walking or employing mobility devices are forced to travel along the highway. Handicap accessible sidewalks are needed the length of 65 through the City of Chillicothe

County: Livingston Source: RTP Needs Assessment 2011
Rt: 36 Project No:
Project Date: --
Description: Many feel the brush needs to be cleared farther back from the road side due to mitigate the risks of car-deer (or other animals) collisions.

## MERCER COUNTY

County: Mercer Source: RTP Needs Assessment 2011
Rt: City of Mercer Project No:
Project Date: --
Description: Safe routes to school; repairing and upgrading sidewalk networks for pedestrian traffic.

County: Mercer Source: RTP Needs Assessment 2011
Rt: City of Princeton Project No:
Project Date: --
Description: Safe routes to school; repairing and upgrading sidewalk networks for pedestrian traffic.

## PUTNAM COUNTY

**No additional data**

## SULLIVAN COUNTY

County: Sullivan Source: RTP Needs Assessment 09
Rt: N Project No:
Project Date: --
Description: Needs to be re-routed for the Lake project.

County: Sullivan Source: RTP Needs Assessment 09
Rt: VV Project No:
Project Date: --
Description: Lengthen to approach lake, or go across lake to link with Hwy 5

County: Sullivan Source: RTP Needs Assessment 09
Rt: E Project No:
Project Date: --
Description: Needs to be widened and have shoulders added from Jct. Hwy 65 in Mercer County to Jct. PP in Sullivan

County: Sullivan Source: RTP Needs Assessment 09
Rt: 139 Project No:
Project Date: --
Description: Narrow bridge just south of Newtown, needs replaced with wider structure to facilitate use by Ag equipment.

County: Sullivan Source: RTP Needs Assessment 09
Rt: PP Project No:
Project Date: --
Description: Narrow bridge over Medicine Creek needs to be replaced with a wider structure to facilitate use by Ag equipment.

---

County: Sullivan Source: RTP Needs Assessment 09
Rt: 5 & 6 Project No:
Project Date: --
Description: Major intersections along both 5 & 6 are in need of rumble strips.

---

County: Sullivan Source: RTP Needs Assessment 09
Rt: E Project No: SC0902
Project Date: --
Description:

---

County: Sullivan Source: RTP Needs Assessment 09
Rt: PP Project No: SC0903
Project Date: --
Description: Replace Bridge over Medicine Creek with wider structure

---

County: Sullivan Source: RTP Needs Assessment 09
Rt: 5 Project No: SC0905
Project Date: --
Description: The bridges just north of Milan need to be replaced with culverts.

---

County: Sullivan Source: RTP Needs Assessment 09
Rt: Jct. 5/6&E Project No: SC0907
Project Date: --
Description: Install flashing red/yellow light at Jct. on the northeast edge of Milan

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# CHAPTER 6

**Future Project Plan**

The attached pages of this section have been pulled directly from the current Statewide Transportation Improvement Plan (STIP) and include the funding allocations and award dates for MoDOT district I and II identified projects for the next 5 years. Project Maps are included.

# 2011-2015 Highway and Bridge Construction Schedule

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Jefferson City, MO 65102
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**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|
| | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Atchison** Route: **US 136** Job No.: **1P0980** Length: **12.29** MPO: **N** Fund Cat: **Major Projects & Emerging Needs** Sec Cat: **Rehab And Reconst** Award Date: **Winter 11** Anticipated Fed Cat: **S.T.P.** AC-State: **2,892** State: **771** Local: **0** Future Cost: **0** Estimate Total: **3,747** | **Pavement improvements from Rte. M to Rte. 71 near Burlington Junction. Project to be awarded with 1P2199.** | | | | | | |
| Engineering: | | **84** | **281** | **0** | **0** | **0** | **0** |
| R/W: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **3,382** | **0** | **0** | **0** | **0** |
| FFOS: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Atchison** Route: **US 136** Job No.: **1P1047** Length: **0.10** MPO: **N** Fund Cat: **Major Projects & Emerging Needs** Sec Cat: **Rehab And Reconst** Award Date: **2012** Anticipated Fed Cat: **Bridge** Fed: **1,100** State: **412** Local: **0** Future Cost: **0** Estimate Total: **1,556** | **Bridge improvements over Little Tarkio Creek, 0.4 mile east of Rte. M near Tarkio. Project involves bridge J0838.** | | | | | | |
| Engineering: | | **44** | **105** | **101** | **0** | **0** | **0** |
| R/W: | | **0** | **17** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **0** | **1,289** | **0** | **0** | **0** |
| FFOS: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Atchison** Route: **IS 29** Job No.: **1I2155** Length: **0.43** MPO: **N** Fund Cat: **Major Projects & Emerging Needs** Sec Cat: **Systems Operations** Award Date: **2012** Anticipated Fed Cat: **S.T.P.** **Federal Oversight** AC-State: **3,901** State: **1,252** Local: **0** Future Cost: **0** Estimate Total: **5,332** | **Pavement improvements, grading, drainage, and structure work for Welcome Center along southbound lane 0.9 mile south of Rte. 136 near Rock Port. Funding by statewide enhancement and operations funds.** | | | | | | |
| Engineering: | | **179** | **5** | **576** | **0** | **0** | **0** |
| R/W: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **0** | **4,572** | **0** | **0** | **0** |
| FFOS: | | **0** | **0** | **4,439** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Atchison** Route: **IS 29** Job No.: **1I2207** Length: **8.52** MPO: **N** Fund Cat: **Statewide Interstate And Major Bridge** Sec Cat: **Rehab And Reconst** Award Date: **2013** Anticipated Fed Cat: **I/M** **Federal Oversight** AC-State: **4,086** State: **575** Local: **0** Future Cost: **0** Estimate Total: **4,661** | **Pavement improvements and shoulders from Rte. 111 to Rte. W near Rock Port.** | | | | | | |
| Engineering: | | **0** | **1** | **1** | **394** | **0** | **0** |
| R/W: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **0** | **0** | **4,265** | **0** | **0** |
| FFOS: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |

*** Subject to the approval of the Transportation Improvement Plan by the governing Metropolitan Planning Organization.**

Apr-30-2010 Section 4 - 1 District 1 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

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Phone (573) 526-8058 Fax (573) 526-8052

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**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Buchanan**<br>Route: **US 169**<br>Job No.: **1P2189**<br>Length: **3.47**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Preventative Maint** | **Pavement improvements from Loop 29 (Belt Hwy.) to Rte. YY (Mitchell Ave.) and Rte. 6 from Rte. 169 East to ramp 29 in St. Joseph. Project to be awarded with 1P2196.**<br>MPO: **Y**<br>Fed: **0** State: **1,105** Local: **0**<br>Future Cost: **0**<br>Award Date: **Summer 10** Anticipated Fed Cat: **State**<br>Estimate Total: **1,108** | Engineering: | **3** | **106** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **999** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Buchanan**<br>Route: **US 169**<br>Job No.: **1P2196**<br>Length: **1.61**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Preventative Maint** | **Pavement improvements from Rte. YY (Mitchell Ave.) to Loop 29 (Pear St.) in St. Joseph. Project to be awarded with 1P2189.**<br>MPO: **Y**<br>Fed: **0** State: **454** Local: **0**<br>Future Cost: **0**<br>Award Date: **Summer 10** Anticipated Fed Cat: **State**<br>Estimate Total: **455** | Engineering: | **1** | **43** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **411** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Buchanan**<br>Route: **IS 29**<br>Job No.: **1I2181**<br>Length: **8.86**<br>Fund Cat: **Statewide Interstate And Major Bridge**<br>Sec Cat: **Preventative Maint** | **Pavement improvements 1.5 miles south of Rte. O, near Faucett, to Platte County line.**<br>MPO: **Y**<br>AC-State: **2,280** State: **291** Local: **0**<br>Future Cost: **0**<br>Award Date: **Summer 11** Anticipated Fed Cat: **I/M**<br>**Federal Oversight**<br>Estimate Total: **2,572** | Engineering: | **1** | **1** | **194** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **0** | **2,376** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Buchanan**<br>Route: **US 36**<br>Job No.: **1P2195**<br>Length: **11.73**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Thin Lift Overlay** | **Pavement and shoulder improvements in the eastbound lane, from east of Rte. AC to east of Rte. 31, in Dekalb County.**<br>MPO: **Y**<br>AC-State: **3,646** State: **1,070** Local: **0**<br>Future Cost: **0**<br>Award Date: **2013** Anticipated Fed Cat: **N.H.S.**<br>Estimate Total: **4,717** | Engineering: | **1** | **5** | **123** | **308** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **0** | **0** | **4,280** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |

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Apr-30-2010 Section 4 - 2 District 1 Dollars in Thousands

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| | | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Buchanan**<br>Route: **MO 45**<br>Job No.: **1P2171**<br>Length: **1.73**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Thin Lift Overlay** | **Pavement improvements from Rte. 59, near Rushville, to Platte County line. Project to be awarded with 1P1013.**<br>MPO: **Y**<br>AC-State: **427** State: **118** Local: **0**<br>Future Cost: **0**<br>Award Date: **2012** Anticipated Fed Cat: **S.T.P.**<br>Estimate Total: **551** | Engineering: | 6 | 10 | 34 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 0 | 501 | 0 | 0 | 0 |
| | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| County: **Buchanan**<br>Route: **US 59**<br>Job No.: **1P1013**<br>Length: **3.42**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Preventative Maint** | **Pavement improvements from Rte. 45 to 0.3 mile east of Kansas State line in Winthrop. Project to be awarded with 1P2171.**<br>MPO: **N**<br>AC-State: **1,585** State: **460** Local: **0**<br>Future Cost: **0**<br>Award Date: **2012** Anticipated Fed Cat: **N.H.S.**<br>Estimate Total: **2,053** | Engineering: | 8 | 28 | 159 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 0 | 1,858 | 0 | 0 | 0 |
| | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| County: **Buchanan**<br>Route: **RT FF**<br>Job No.: **1L1100B**<br>Length: **6.08**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Low Type Resurfacing** | **Pavement improvements from Rte. 169 to Rte. H, in Agency. Project to be awarded with 1L1100C.**<br>MPO: **Y**<br>Fed: **0** State: **397** Local: **0**<br>Future Cost: **0**<br>Award Date: **Fall 10** Anticipated Fed Cat: **State**<br>Estimate Total: **397** | Engineering: | 0 | 28 | 0 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 369 | 0 | 0 | 0 | 0 |
| | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| County: **Buchanan**<br>Route: **RT O**<br>Job No.: **1L1100C**<br>Length: **2.13**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Low Type Resurfacing** | **Pavement improvements from Rte. A to Rte. FF, near Agency. Project to be awarded with 1L1100B.**<br>MPO: **Y**<br>Fed: **0** State: **136** Local: **0**<br>Future Cost: **0**<br>Award Date: **Fall 10** Anticipated Fed Cat: **State**<br>Estimate Total: **136** | Engineering: | 0 | 11 | 0 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 125 | 0 | 0 | 0 | 0 |
| | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |



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Apr-30-2010 Section 4 - 3 District 1 Dollars in Thousands

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| | | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Caldwell**<br>Route: **MO 116**<br>Job No.: **1B0803B**<br>Length: **0.22**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Preventative Maint** | **Paint bridges: Caldwell Co. - Rte. 116 over North Mud Cr., Rte. N over Mud Cr. Harrison Co. - Rte. MM over Fox and Sugar Cr. Rte. AA over Big Cr. Dekalb Co. - Rte. 33 over Maysville Branch of Lost Cr. and W.F. Lost Cr. Funded by GARVEE. Part of Safe and Sound Program.**<br>MPO: **N**<br>AC-State: **600** State: **160** Local: **0**<br>Future Cost: **0**<br>Award Date: **Winter 11** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **760** | Engineering: | **0** | **58** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **702** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **702** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Caldwell**<br>Route: **RT A**<br>Job No.: **1S2147**<br>Length: **0.10**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Bridge improvements over Shoal Creek 4.1 miles north of Rte. F near Braymer. Project involves bridge A1784. Project to be awarded with 1S2204.**<br>MPO: **N**<br>Fed: **406** State: **107** Local: **0**<br>Future Cost: **0**<br>Award Date: **Fall 10** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **545** | Engineering: | **32** | **38** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **475** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Caldwell**<br>Route: **RT U**<br>Job No.: **1B0801Q**<br>Length: **0.14**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Bridge improvements on Rte. U over Otter Creek, Rte. HH over Plum Creek in Caldwell County, on Rte. V over I-35 and Rte. K over Castile Creek in Clinton County. Funded by GARVEE. Involves bridges N0735, R0526, R0226, and N0736. Part of the Safe and Sound program.**<br>MPO: **N**<br>AC-State: **972** State: **311** Local: **0**<br>Future Cost: **0**<br>Award Date: **Winter 11** Anticipated Fed Cat: **Bridge**<br>**Federal Oversight**<br>Estimate Total: **1,284** | Engineering: | **1** | **145** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **1,138** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **1,138** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Clinton**<br>Route: **RT A**<br>Job No.: **1S1007**<br>Length: **0.10**<br>Fund Cat: **Safety**<br>Sec Cat: **Safety** | **Intersection improvements at Rte. T near Turney.**<br>MPO: **N**<br>Fed: **180** State: **23** Local: **0**<br>Future Cost: **0**<br>Award Date: **Summer 10** Anticipated Fed Cat: **Safety**<br>Estimate Total: **211** | Engineering: | **8** | **16** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **187** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |

*** Subject to the approval of the Transportation Improvement Plan by the governing Metropolitan Planning Organization.**

Apr-30-2010 Section 4 - 4 District 1 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

**Transportation Planning**
2217 St. Marys Blvd.
P.O. Box 270
Jefferson City, MO 65102
Phone (573) 526-8058 Fax (573) 526-8052

**Construction contingency applied to construction cost in the year the project is awarded.**
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**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|
| | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Daviess**<br>Route: **RT HH**<br>Job No.: **1B0801N**<br>Length: **0.12**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Bridge improvements on Rte. HH over Marrowbone Creek, on Rte. V over Muddy Creek, on Rte. T over Sampson Creek, and on Rte. Z over drainage ditch. Funded by GARVEE. Project involves bridges R0378, P0830, N0262 and R0073. Part of the Safe and Sound program.**<br>MPO: **N**<br>AC-State: **1,874** State: **647** Local: **0**<br>Future Cost: **0**<br>Award Date: **Winter 11** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **2,522** | Engineering: | **1** | **329** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **2,192** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **2,192** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Dekalb**<br>Route: **US 36**<br>Job No.: **1B0801S**<br>Length: **0.07**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Bridge improvements on Rte. 36 over Castile Creek and Grindstone Creek. Funded by GARVEE. Project involves bridges A1591 and A1594. Part of the Safe and Sound program.**<br>MPO: **N**<br>AC-State: **1,075** State: **338** Local: **0**<br>Future Cost: **0**<br>Award Date: **Spring 11** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **1,418** | Engineering: | **5** | **156** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **1,257** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **1,257** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Dekalb**<br>Route: **RT F**<br>Job No.: **1B0801P**<br>Length: **0.04**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Bridge improvements on Rte. F over Crooked Creek in Dekalb County and Rte. 169 over Old Channel Island Creek in Gentry County. Funded by GARVEE. Project involves bridges N0870 and F0327. Part of the Safe and Sound program.**<br>MPO: **N**<br>AC-State: **913** State: **351** Local: **0**<br>Future Cost: **0**<br>Award Date: **Spring 11** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **1,265** | Engineering: | **1** | **144** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **51** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **1,069** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **1,069** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Gentry**<br>Route: **US 136**<br>Job No.: **1P0979B**<br>Length: **0.50**<br>Fund Cat: **Major Projects & Emerging Needs**<br>Sec Cat: **Rehab And Reconst** | **Pavement improvements and sidewalks from west city limits of Stanberry to the Rte. 169 intersection.**<br>MPO: **N**<br>AC-State: **593** State: **154** Local: **0**<br>Future Cost: **0**<br>Award Date: **Fall 10** Anticipated Fed Cat: **S.T.P.**<br>Estimate Total: **827** | Engineering: | **60** | **53** | **0** | **0** | **0** | **0** |
| | | R/W: | **20** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **694** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |

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Apr-30-2010 Section 4 - 5 District 1 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

**Transportation Planning**
2217 St. Marys Blvd.
P.O. Box 270
Jefferson City, MO 65102
Phone (573) 526-8058 Fax (573) 526-8052

**Construction contingency applied to construction cost in the year the project is awarded.**
**Three percent project growth factor compounded annually is applied to right-of-way and construction costs in program years 2, 3, 4, and 5.**
**No inflation is applied to the Funding From Other Sources (FFOS) or Payments.**
**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Gentry** | **Pavement improvements from west of Rte. C near Albany to the Harrison County line.** | | Engineering: | 86 | 183 | 0 | 0 | 0 | 0 |
| Route: **US 136** | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1P1016** | | | Construction: | 0 | 2,540 | 0 | 0 | 0 | 0 |
| Length: **8.00** | MPO: **N** | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| Fund Cat: **Taking Care Of System** | AC-State: **2,171** State: **552** Local: **0** Future Cost: **0** | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Preventative Maint** | Award Date: **Winter 11** | Anticipated Fed Cat: **S.T.P.** | | | | | | | |
| | | Estimate Total: **2,809** | | | | | | | |
| County: **Gentry** | **Bridge improvements on Rte. 85 at Thompson bridge. Funded by GARVEE. Project involves bridge H0223. Part of the Safe and Sound program.** | | Engineering: | 1 | 56 | 0 | 0 | 0 | 0 |
| Route: **MO 85** | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1B0801O** | | | Construction: | 0 | 441 | 0 | 0 | 0 | 0 |
| Length: **0.01** | MPO: **N** | | FFOS: | 0 | 441 | 0 | 0 | 0 | 0 |
| Fund Cat: **Taking Care Of System** | AC-State: **377** State: **120** Local: **0** Future Cost: **0** | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Rehab And Reconst** | Award Date: **Winter 11** | Anticipated Fed Cat: **Bridge** | | | | | | | |
| | | Estimate Total: **498** | | | | | | | |
| County: **Harrison** | **Pavement improvements from Rte. 13 to Rte. 146. Project to be awarded with 1L1100E.** | | Engineering: | 0 | 21 | 0 | 0 | 0 | 0 |
| Route: **RT MM** | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1L1100D** | | | Construction: | 0 | 259 | 0 | 0 | 0 | 0 |
| Length: **4.25** | MPO: **N** | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| Fund Cat: **Taking Care Of System** | Fed: **0** State: **280** Local: **0** Future Cost: **0** | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Low Type Resurfacing** | Award Date: **Fall 10** | Anticipated Fed Cat: **State** | | | | | | | |
| | | Estimate Total: **280** | | | | | | | |
| County: **Harrison** | **Pavement improvements from I-35 to Rte. T in Blythedale. Project to be awarded with 1L1100D.** | | Engineering: | 0 | 13 | 0 | 0 | 0 | 0 |
| Route: **RT N** | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1L1100E** | | | Construction: | 0 | 154 | 0 | 0 | 0 | 0 |
| Length: **2.88** | MPO: **N** | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| Fund Cat: **Taking Care Of System** | Fed: **0** State: **167** Local: **0** Future Cost: **0** | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Low Type Resurfacing** | Award Date: **Fall 10** | Anticipated Fed Cat: **State** | | | | | | | |
| | | Estimate Total: **167** | | | | | | | |

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Apr-30-2010 Section 4 - 6 District 1 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

**Transportation Planning**
2217 St. Marys Blvd.
P.O. Box 270
Jefferson City, MO 65102
Phone (573) 526-8058 Fax (573) 526-8052

**Construction contingency applied to construction cost in the year the project is awarded.**
**Three percent project growth factor compounded annually is applied to right-of-way and construction costs in program years 2, 3, 4, and 5.**
**No inflation is applied to the Funding From Other Sources (FFOS) or Payments.**
**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | | | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Holt** | **Pavement improvements from Rte. W to Rte. 59 intersection at Craig. Project to be awarded with 1I2163.** | | | Engineering: | 15 | 153 | 0 | 0 | 0 | 0 |
| Route: **IS 29** | | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1I2162** | | | | Construction: | 0 | 2,087 | 0 | 0 | 0 | 0 |
| Length: **6.95** | MPO: **N** | | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| Fund Cat: **Statewide Interstate And Major Bridge** | AC-State: **2,007** State: **233** Local: **0** Future Cost: **0** | | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Preventative Maint** | Award Date: **Winter 11** | Anticipated Fed Cat: **I/M** | **Federal Oversight** | | | | | | | |
| | | | Estimate Total: **2,255** | | | | | | | |
| County: **Holt** | **Pavement improvements from Rte. 59 interchange to Rte. 118 at Mound City. Project to be awarded with 1I2162.** | | | Engineering: | 15 | 176 | 0 | 0 | 0 | 0 |
| Route: **IS 29** | | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1I2163** | | | | Construction: | 0 | 2,419 | 0 | 0 | 0 | 0 |
| Length: **8.28** | MPO: **N** | | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| Fund Cat: **Statewide Interstate And Major Bridge** | AC-State: **2,326** State: **269** Local: **0** Future Cost: **0** | | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Preventative Maint** | Award Date: **Winter 11** | Anticipated Fed Cat: **I/M** | **Federal Oversight** | | | | | | | |
| | | | Estimate Total: **2,610** | | | | | | | |
| County: **Nodaway** | **Bridge improvements on Rte. A over Elkhorn Creek and on Rte. VV over Long Branch. Funded by GARVEE. Project involves bridge L0196 and N0039. Part of the Safe and Sound program.** | | | Engineering: | 2 | 153 | 0 | 0 | 0 | 0 |
| Route: **RT A** | | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1B0801K** | | | | Construction: | 0 | 1,015 | 0 | 0 | 0 | 0 |
| Length: **0.06** | MPO: **N** | | | FFOS: | 0 | 1,015 | 0 | 0 | 0 | 0 |
| Fund Cat: **Taking Care Of System** | AC-State: **868** State: **300** Local: **0** Future Cost: **0** | | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Rehab And Reconst** | Award Date: **Spring 11** | Anticipated Fed Cat: **Bridge** | | | | | | | | |
| | | | Estimate Total: **1,170** | | | | | | | |
| County: **Various** | **Pavement improvements on various routes in District 1.** | | | Engineering: | 2 | 10 | 78 | 0 | 0 | 0 |
| Route: **Various** | | | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| Job No.: **1L1200** | | | | Construction: | 0 | 0 | 1,051 | 0 | 0 | 0 |
| Length: **0.00** | MPO: **N** | | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| Fund Cat: **Taking Care Of System** | Fed: **0** State: **1,139** Local: **0** Future Cost: **0** | | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sec Cat: **Thin Lift Overlay** | Award Date: **2012** | Anticipated Fed Cat: **State** | | | | | | | | |
| | | | Estimate Total: **1,141** | | | | | | | |

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Apr-30-2010 Section 4 - 7 District 1 Dollars in Thousands

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| | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|
| | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Various** Route: **Various** Job No.: **1L1300** Length: **0.00** MPO: **Y** Fund Cat: **Taking Care Of System** Sec Cat: **Low Type Resurfacing** | **Pavement improvements on various routes in District 1.** Fed: **0** State: **1,187** Local: **0** Future Cost: **0** Award Date: **2013** Anticipated Fed Cat: **State** Estimate Total: **1,187** | | | | | | |
| Engineering: | | **0** | **5** | **20** | **80** | **0** | **0** |
| R/W: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **0** | **0** | **1,082** | **0** | **0** |
| FFOS: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Various** Route: **Various** Job No.: **1P1053** Length: **0.00** MPO: **Y** Fund Cat: **Safety** Sec Cat: **Safety** | **On-call workzone enforcement on various routes in northwest Missouri.** Fed: **0** State: **11** Local: **0** Future Cost: **0** Award Date: **N/A** Anticipated Fed Cat: **State** Estimate Total: **13** | | | | | | |
| Engineering: | | **2** | **0** | **0** | **0** | **0** | **0** |
| R/W: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **11** | **0** | **0** | **0** | **0** |
| FFOS: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Various** Route: **Various** Job No.: **1P2200** Length: **0.00** MPO: **Y** Fund Cat: **Safety** Sec Cat: **Safety** | **On-call guard cable and guardrail repair contract on various major routes in District 1.** Fed: **270** State: **32** Local: **0** Future Cost: **0** Award Date: **Spring 11** Anticipated Fed Cat: **Safety** Estimate Total: **302** | | | | | | |
| Engineering: | | **0** | **2** | **0** | **0** | **0** | **0** |
| R/W: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **300** | **0** | **0** | **0** | **0** |
| FFOS: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Worth** Route: **US 169** Job No.: **1P1980** Length: **17.37** MPO: **N** Fund Cat: **Taking Care Of System** Sec Cat: **Thin Lift Overlay** | **Pavement improvements from Rte. 46 in Grant City to Rte. 136 in Gentry County.** AC-State: **3,646** State: **1,027** Local: **0** Future Cost: **0** Award Date: **2012** Anticipated Fed Cat: **S.T.P.** Estimate Total: **4,679** | | | | | | |
| Engineering: | | **6** | **90** | **310** | **0** | **0** | **0** |
| R/W: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Construction: | | **0** | **0** | **4,273** | **0** | **0** | **0** |
| FFOS: | | **0** | **0** | **0** | **0** | **0** | **0** |
| Payments: | | **0** | **0** | **0** | **0** | **0** | **0** |

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Transportation Planning
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# 2011-2015 Highway and Bridge Construction Schedule

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**Engineering includes PE costs, CE costs and R/W incidentals.**

| | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|
| | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| FFOS: | 0 | 7,814 | 4,439 | 0 | 0 | 0 |
| Total R/W: | 20 | 68 | 0 | 0 | 0 | 0 |
| Total Construction: | 0 | 22,226 | 15,920 | 9,627 | 0 | 0 |
| Paybacks: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sub-Total: | 20 | 22,294 | 15,920 | 9,627 | 0 | 0 |
| Total Engineering: | 564 | 2,425 | 1,596 | 782 | 0 | 0 |
| **Grand Total:** | 584 | 24,719 | 17,516 | 10,409 | 0 | 0 |

| | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| State | 7,195 | 4,577 | 2,677 | 0 | 0 |
| AC-State | 16,668 | 11,839 | 7,732 | 0 | 0 |
| Local | 0 | 0 | 0 | 0 | 0 |
| Sub-total State | 23,863 | 16,416 | 10,409 | 0 | 0 |

| **Federal** | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Sub-total Federal | 856 | 1,100 | 0 | 0 | 0 |
| **Grand Total** | 24,719 | 17,516 | 10,409 | 0 | 0 |

*** Subject to the approval of the Transportation Improvement Plan by the governing Metropolitan Planning Organization.**

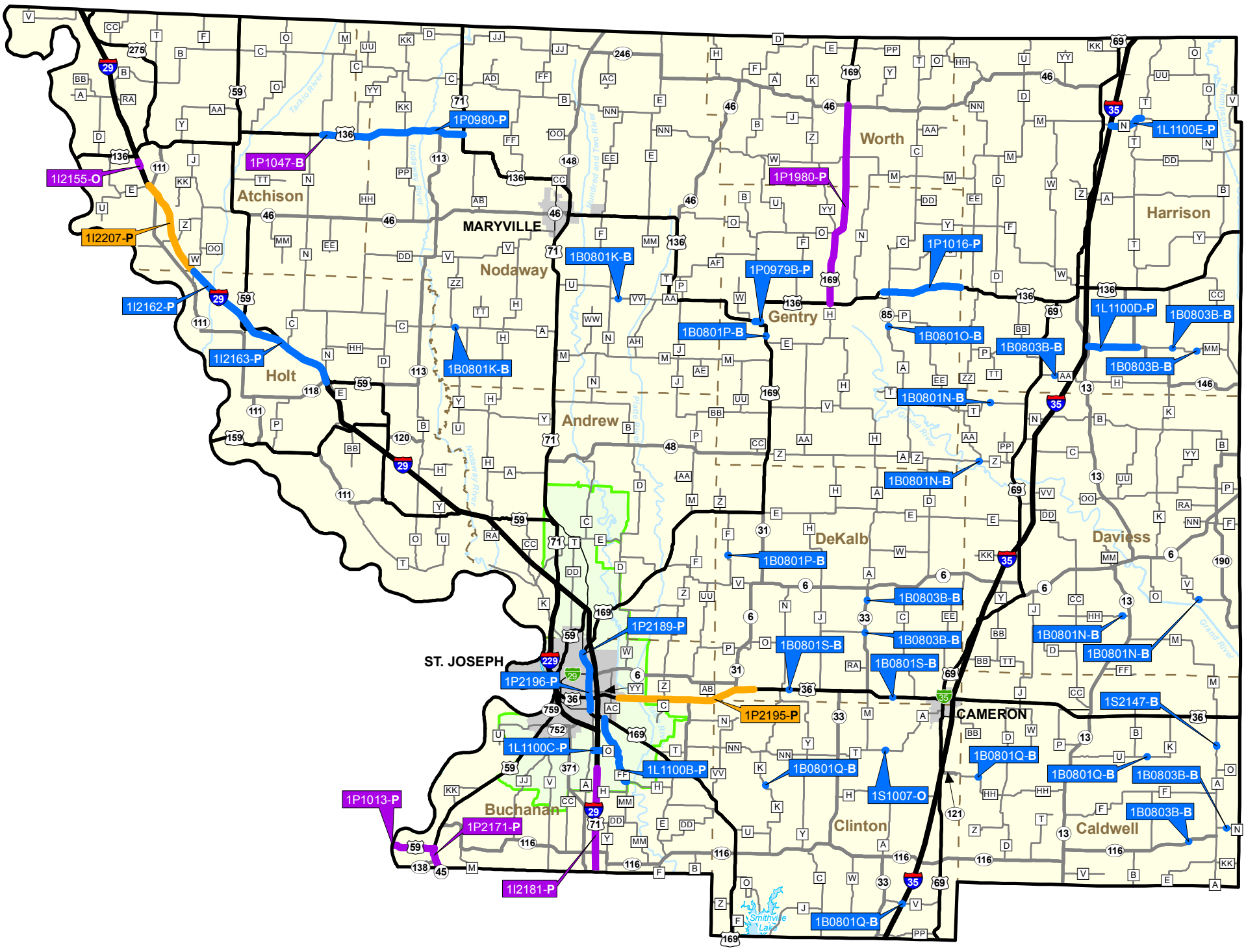
Apr-30-2010 Section 4 - 9 District 1 Dollars in Thousands

DRAFT

# Statewide Transportation Improvement Program 2011-2015 District 1

Highway and Bridge Construction Projects

DRAFT

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**State Fiscal Year***

- 2011
- 2012
- 2013
- 2014
- 2015

**Type of Work**

**B** = New/Improved Bridge
**H** = New/Expanded Highway
**M** = Major Bridge
**O** = Other/Safety
**P** = Pavement Treatment

**Label Key**
Job No.-**Type of Work**

**Urban Areas**

**St. Joseph Area Transportation Study Organization**

* July 1 - June 30
Note: Some projects overlap. The state fiscal year displayed in these instances will follow the order shown in the legend. Label tag color corresponds to respective state fiscal year.

0 5 10 20 30 Miles


**Missouri Department of Transportation**
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April 29, 2010

tp on ghsmdata01\GIS\Map_Projects\STIP2011_2015\District_Maps\Dist01\Dist01_STIP11.mxd

# 2011-2015 Highway and Bridge Construction Schedule

**Transportation Planning**
2217 St. Marys Blvd.
P.O. Box 270
Jefferson City, MO 65102
Phone (573) 526-8058 Fax (573) 526-8052

**Construction contingency applied to construction cost in the year the project is awarded.**
**Three percent project growth factor compounded annually is applied to right-of-way and construction costs in program years 2, 3, 4, and 5.**
**No inflation is applied to the Funding From Other Sources (FFOS) or Payments.**
**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Adair**<br>Route: **US 63**<br>Job No.: **2P0483I**<br>Length: **2.60**<br>Fund Cat: **Amendment 3**<br>Sec Cat: **System Expansion** | **Construct new two-lane roadway on four-lane right of way east of Kirksville from 0.25 mile south of Rte. 6 to 2 miles south of Rte. 6. Major project made possible by Amendment 3 and City of Kirksville. Amendment 3 new major project.**<br>MPO: **N**<br>AC-State: **5,802** State: **178** Local: **3,033**<br>Future Cost: **0**<br>Award Date: **Summer 10** Anticipated Fed Cat: **N.H.S.**<br>Estimate Total: **10,724** | Engineering: | **150** | **590** | **0** | **0** | **0** | **0** |
| | | R/W: | **1,561** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **8,423** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **500** | **1,260** | **1,273** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Carroll**<br>Route: **US 24**<br>Job No.: **2P0779**<br>Length: **17.21**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Thin Lift Overlay** | **Roadway improvements from Carrollton to De Witt.**<br>MPO: **N**<br>AC-State: **2,556** State: **659** Local: **0**<br>Future Cost: **0**<br>Award Date: **Fall 10** Anticipated Fed Cat: **S.T.P.**<br>Estimate Total: **3,285** | Engineering: | **70** | **225** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **2,990** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Howard**<br>Route: **MO 240**<br>Job No.: **2P0724**<br>Length: **0.46**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Bridge improvements over Bonne Femme Creek and construct left-turn lane at Rte. 124/240 intersection near Fayette. Project involves bridges J0950 and J0902.**<br>MPO: **N**<br>Fed: **2,212** State: **573** Local: **0**<br>Future Cost: **0**<br>Award Date: **Winter 11** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **2,964** | Engineering: | **160** | **192** | **0** | **0** | **0** | **0** |
| | | R/W: | **19** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **2,593** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Livingston**<br>Route: **RT V**<br>Job No.: **2S0787**<br>Length: **0.20**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Cost share project with the City of Chillicothe for bridge improvements over IMLR railroad 0.5 mile north of Chillicothe. Project involves bridge Y0570.**<br>MPO: **N**<br>Fed: **766** State: **1,594** Local: **1,499**<br>Future Cost: **0**<br>Award Date: **2013** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **3,919** | Engineering: | **60** | **70** | **335** | **185** | **0** | **0** |
| | | R/W: | **0** | **0** | **1,096** | **0** | **0** | **0** |
| | | Construction: | **0** | **0** | **0** | **2,173** | **0** | **0** |
| | | FFOS: | **0** | **0** | **1,064** | **1,769** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |

*** Subject to the approval of the Transportation Improvement Plan by the governing Metropolitan Planning Organization.**

Apr-30-2010 Section 4 - 1 District 2 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

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Jefferson City, MO 65102
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**No inflation is applied to the Funding From Other Sources (FFOS) or Payments.**
**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|
| | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Macon**<br>Route: **Various**<br>Job No.: **2P0483J**<br>Length: **0.00**<br>Fund Cat: **Amendment 3**<br>Sec Cat: **System Expansion** | **Wetland mitigation for Alternate Rte. 63 project in Kirksville. Mitigation project located near the intersection of Mesquite St. and Bear Creek in Macon County. Amendment 3 new major project.**<br>MPO: **N**<br>AC-State: **334** State: **99** Local: **0**<br>Future Cost: **0**<br>Award Date: **Winter 11** Anticipated Fed Cat: **S.T.P.**<br>Estimate Total: **593** | Engineering: | **1** | **43** | **0** | **0** | **0** | **0** |
| | | R/W: | **159** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **390** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Saline**<br>Route: **MO 127**<br>Job No.: **2B0801F**<br>Length: **0.02**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Rehab And Reconst** | **Bridge improvements on Rte. 127 over KCS railroad. Funded by GARVEE. Project involves bridge L0392. Part of the Safe and Sound program.**<br>MPO: **N**<br>AC-State: **1,086** State: **415** Local: **0**<br>Future Cost: **0**<br>Award Date: **Summer 11** Anticipated Fed Cat: **Bridge**<br>Estimate Total: **1,503** | Engineering: | **2** | **1** | **179** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **49** | **0** | **0** | **0** |
| | | Construction: | **0** | **0** | **1,272** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **1,235** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Saline**<br>Route: **MO 127**<br>Job No.: **2B0803B**<br>Length: **0.42**<br>Fund Cat: **Taking Care Of System**<br>Sec Cat: **Preventative Maint** | **Bridge painting on Rtes. 127, YY, TT, F, AC in Saline Co.; Rte. M in Carrol Co.; Rte. W in Moniteau Co.; Rte. 156 in Macon Co.; and Rte. EE in Putnam Co. Involves bridges A1066, X0916, L0890, N0595, R0474, N0662, N0631, N0919, R0408, N0860. Safe & Sound, funded by GARVE**<br>MPO: **N**<br>Fed: **0** State: **1,219** Local: **0**<br>Future Cost: **0**<br>Award Date: **Fall 10** Anticipated Fed Cat: **State**<br>Estimate Total: **1,219** | Engineering: | **0** | **83** | **0** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **1,136** | **0** | **0** | **0** | **0** |
| | | FFOS: | **0** | **1,136** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Saline**<br>Route: **IS 70**<br>Job No.: **2I2152**<br>Length: **14.51**<br>Fund Cat: **Statewide Interstate And Major Bridge**<br>Sec Cat: **Rehab And Reconst** | **Pavement improvements under overpasses at Rtes. YY, K/EE, and 127. Resurface eastbound and westbound lanes including shoulders from Lafayette County line to the Blackwater River.**<br>MPO: **N**<br>AC-State: **9,175** State: **1,324** Local: **0**<br>Future Cost: **0**<br>Award Date: **Summer 11** Anticipated Fed Cat: **I/M**<br>**Federal Oversight**<br>Estimate Total: **10,505** | Engineering: | **6** | **204** | **737** | **0** | **0** | **0** |
| | | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Construction: | **0** | **0** | **9,558** | **0** | **0** | **0** |
| | | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |

*** Subject to the approval of the Transportation Improvement Plan by the governing Metropolitan Planning Organization.**

Apr-30-2010 Section 4 - 2 District 2 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

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**Construction contingency applied to construction cost in the year the project is awarded.**
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**No inflation is applied to the Funding From Other Sources (FFOS) or Payments.**
**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|
| | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Saline** Route: **RT VV** Job No.: **2B0801G** Length: **0.02** MPO: **N** Fund Cat: **Taking Care Of System** Sec Cat: **Rehab And Reconst** Award Date: **Fall 10** Anticipated Fed Cat: **Bridge** | **Bridge improvements on Rte. VV over Brushy Creek. Funded by GARVEE. Project involves bridge N0432. Part of the Safe and Sound program.** AC-State: **301** State: **96** Local: **0** Future Cost: **0** Estimate Total: **398** | Engineering: | 1 | 44 | 0 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 353 | 0 | 0 | 0 | 0 |
| | | FFOS: | 0 | 353 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| County: **Sullivan** Route: **RT E** Job No.: **2S0792** Length: **0.20** MPO: **N** Fund Cat: **Taking Care Of System** Sec Cat: **Rehab And Reconst** Award Date: **Spring 11** Anticipated Fed Cat: **Bridge** | **Bridge improvements over Medicine Creek drainage ditch 0.5 mile east of Rte. 139. Project involves bridge T0485.** Fed: **472** State: **121** Local: **0** Future Cost: **0** Estimate Total: **627** | Engineering: | 34 | 40 | 0 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 553 | 0 | 0 | 0 | 0 |
| | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| County: **Various** Route: **Various** Job No.: **2I2163** Length: **0.00** MPO: **N** Fund Cat: **Statewide Interstate And Major Bridge** Sec Cat: **Preventative Maint** Award Date: **2011** Anticipated Fed Cat: **State** | **On-call preventive maintenance and pavement repair on various statewide interstate routes for SFY 2011.** Fed: **0** State: **8,025** Local: **0** Future Cost: **0** Estimate Total: **8,027** | Engineering: | 2 | 525 | 0 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 7,500 | 0 | 0 | 0 | 0 |
| | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |
| County: **Various** Route: **Various** Job No.: **2I2164** Length: **0.00** MPO: **N** Fund Cat: **Statewide Interstate And Major Bridge** Sec Cat: **Preventative Maint** Award Date: **2012** Anticipated Fed Cat: **State** | **On-call preventive maintenance and pavement repair on various statewide interstate routes.** Fed: **0** State: **8,242** Local: **0** Future Cost: **0** Estimate Total: **8,243** | Engineering: | 1 | 1 | 516 | 0 | 0 | 0 |
| | | R/W: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Construction: | 0 | 0 | 7,725 | 0 | 0 | 0 |
| | | FFOS: | 0 | 0 | 0 | 0 | 0 | 0 |
| | | Payments: | 0 | 0 | 0 | 0 | 0 | 0 |

*** Subject to the approval of the Transportation Improvement Plan by the governing Metropolitan Planning Organization.**

Apr-30-2010 Section 4 - 3 District 2 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

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Phone (573) 526-8058 Fax (573) 526-8052

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**No inflation is applied to the Funding From Other Sources (FFOS) or Payments.**
**Engineering includes PE costs, CE costs and R/W incidentals.**

| | | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|---|
| | | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| County: **Various** Route: **Various** Job No.: **2I2165** Length: **0.00** MPO: **N** Fund Cat: **Statewide Interstate And Major Bridge** Sec Cat: **Preventative Maint** Award Date: **2013** Anticipated Fed Cat: **State** Fed: **0** State: **8,484** Local: **0** Future Cost: **0** Estimate Total: **8,484** | **On-call preventive maintenance and pavement repair on various statewide interstate routes.** | | | | | | |
| | Engineering: | **0** | **1** | **1** | **525** | **0** | **0** |
| | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Construction: | **0** | **0** | **0** | **7,957** | **0** | **0** |
| | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Various** Route: **Various** Job No.: **2L1100** Length: **0.00** MPO: **N** Fund Cat: **Taking Care Of System** Sec Cat: **Low Type Resurfacing** Award Date: **Summer 11** Anticipated Fed Cat: **State** Fed: **0** State: **854** Local: **0** Future Cost: **0** Estimate Total: **858** | **Pavement improvements on various routes in District 2.** | | | | | | |
| | Engineering: | **4** | **1** | **59** | **0** | **0** | **0** |
| | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Construction: | **0** | **0** | **794** | **0** | **0** | **0** |
| | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Various** Route: **Various** Job No.: **2P0789** Length: **0.00** MPO: **N** Fund Cat: **Safety** Sec Cat: **Safety** Award Date: **N/A** Anticipated Fed Cat: **State** Fed: **0** State: **32** Local: **0** Future Cost: **0** Estimate Total: **34** | **On-call workzone enforcement at various locations in District 2.** | | | | | | |
| | Engineering: | **2** | **2** | **0** | **0** | **0** | **0** |
| | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Construction: | **0** | **30** | **0** | **0** | **0** | **0** |
| | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |
| County: **Various** Route: **Various** Job No.: **2P2170** Length: **0.00** MPO: **N** Fund Cat: **Taking Care Of System** Sec Cat: **Routine Maintenance** Award Date: **N/A** Anticipated Fed Cat: **State** Fed: **0** State: **53** Local: **0** Future Cost: **0** Estimate Total: **54** | **On-call guardrail repair at various locations throughout District 2.** | | | | | | |
| | Engineering: | **1** | **3** | **0** | **0** | **0** | **0** |
| | R/W: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Construction: | **0** | **50** | **0** | **0** | **0** | **0** |
| | FFOS: | **0** | **0** | **0** | **0** | **0** | **0** |
| | Payments: | **0** | **0** | **0** | **0** | **0** | **0** |

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Apr-30-2010 Section 4 - 4 District 2 Dollars in Thousands

# 2011-2015 Highway and Bridge Construction Schedule

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| | STATE FISCAL YEAR PROJECT BUDGETING | | | | | |
|---|---|---|---|---|---|---|
| | Prior Prog. | 7/2010-6/2011 | 7/2011-6/2012 | 7/2012-6/2013 | 7/2013-6/2014 | 7/2014-6/2015 |
| FFOS: | 0 | 1,489 | 2,299 | 2,269 | 1,260 | 1,273 |
| Total R/W: | 1,739 | 0 | 1,145 | 0 | 0 | 0 |
| Total Construction: | 0 | 24,018 | 19,349 | 10,130 | 0 | 0 |
| Paybacks: | 0 | 0 | 0 | 0 | 0 | 0 |
| Sub-Total: | 1,739 | 24,018 | 20,494 | 10,130 | 0 | 0 |
| Total Engineering: | 494 | 2,025 | 1,827 | 710 | 0 | 0 |
| **Grand Total:** | 2,233 | 26,043 | 22,321 | 10,840 | 0 | 0 |

| | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| State | 11,333 | 12,060 | 8,575 | 0 | 0 |
| AC-State | 8,993 | 10,261 | 0 | 0 | 0 |
| Local | 3,033 | 0 | 1,499 | 0 | 0 |
| Sub-total State | 23,359 | 22,321 | 10,074 | 0 | 0 |

| **Federal** | 2011 | 2012 | 2013 | 2014 | 2015 |
|---|---|---|---|---|---|
| Sub-total Federal | 2,684 | 0 | 766 | 0 | 0 |
| **Grand Total** | 26,043 | 22,321 | 10,840 | 0 | 0 |

*** Subject to the approval of the Transportation Improvement Plan by the governing Metropolitan Planning Organization.**

Apr-30-2010 Section 4 - 5 District 2 Dollars in Thousands

DRAFT

# Statewide Transportation Improvement Program 2011-2015 District 2

Highway and Bridge Construction Projects

DRAFT

Putnam
Mercer
Schuyler
Adair
Sullivan
Grundy
TRENTON
KIRKSVILLE
Linn
Macon
Livingston
CHILLICOTHE
MACON
Chariton
Carroll
MOBERLY
Randolph
Saline
Howard
MARSHALL
BOONVILLE

2B0803B-B
2S0792-B
2P0483I-H
2B0803B-B
2S0787-B
2B0803B-B
2P0779-P
2B0803B-B
2P0724-B
2B0803B-B
2B0803B-B
2B0801F-B
2B0803B-B
2B0803B-B
2B0801G-B
2I2152-P
2B0803B-B

Missouri Department of Transportation
1-888-ASK-MODOT
WWW.MODOT.ORG

April 29, 2010

Miles
0 5 10 20

**State Fiscal Year***
- 2011
- 2012
- 2013
- 2014
- 2015

Urban Areas

**Type of Work**
- **B** = New/Improved Bridge
- **H** = New/Expanded Highway
- **M** = Major Bridge
- **O** = Other/Safety
- **P** = Pavement Treatment

**Label Key**
Job No.-**Type of Work**

* July 1 - June 30

Note: Some projects overlap. The state fiscal year displayed in these instances will follow the order shown in the legend. Label tag color corresponds to respective state fiscal year.

tp on ghsmdata01\GIS\Map_Projects\STIP2011_2015\District_Maps\Dist02\Dist02_STIP11.mxd

# CHAPTER 7

## RTP for 10 Years

This chapter is intended to identify the needs presented in chapter 5, depicting not only recently identified needs but those identified in the past and those that have been addressed by MoDOT. Over the years needs become projects and exit the list, as new needs are identified and added. The maps and lists that were presented in Chapter 5 as part of the narrative on needs assessment are presented again here, as they are a complete representation of all identified needs and the maps indicate which have already been met by MoDOT or have been included in the STIP as future projects.

# Missouri Department of Transportation
# District One
# Counties in the Green Hills Region

## Transportation Planning Needs Assessment
## January 2010

**Road Projects Rated Most Needed (In No Particular Order)**

- Resurface of 116 from Polo
- Scoping upgrade of 13 Highway From US 36 southward
- Resurfacing 13 from Hwy 6 to Harrison Co. Border
- Resurfacing of Rt. K in Harrison
- Resurfacing of B in Harrison
- Upgrading shoulders on US 69 in Harrison
- Upgrading the intersection of H & 13 in Harrison County (Safety issue)
- Resurfacing of A in Harrison County

**Bridge Projects Rated Most Needed (In No Particular Order)**

- Replace functionally obsolete bridge on Hwy 13 over Log Creek in Kingston
- Replace the UP railroad bridge on Hwy 13 in Polo
- Replace the functionally obsolete bridge on Hwy 13 over Honey Creek south of Gallatin
- Re-deck the bridge on US 69 over West Fork Big Creek in Harrison County
- Replace the Bridge over Hickory Creek on Rt. H in Harrison County

**All Other reported needs**

**CALDWELL COUNTY**

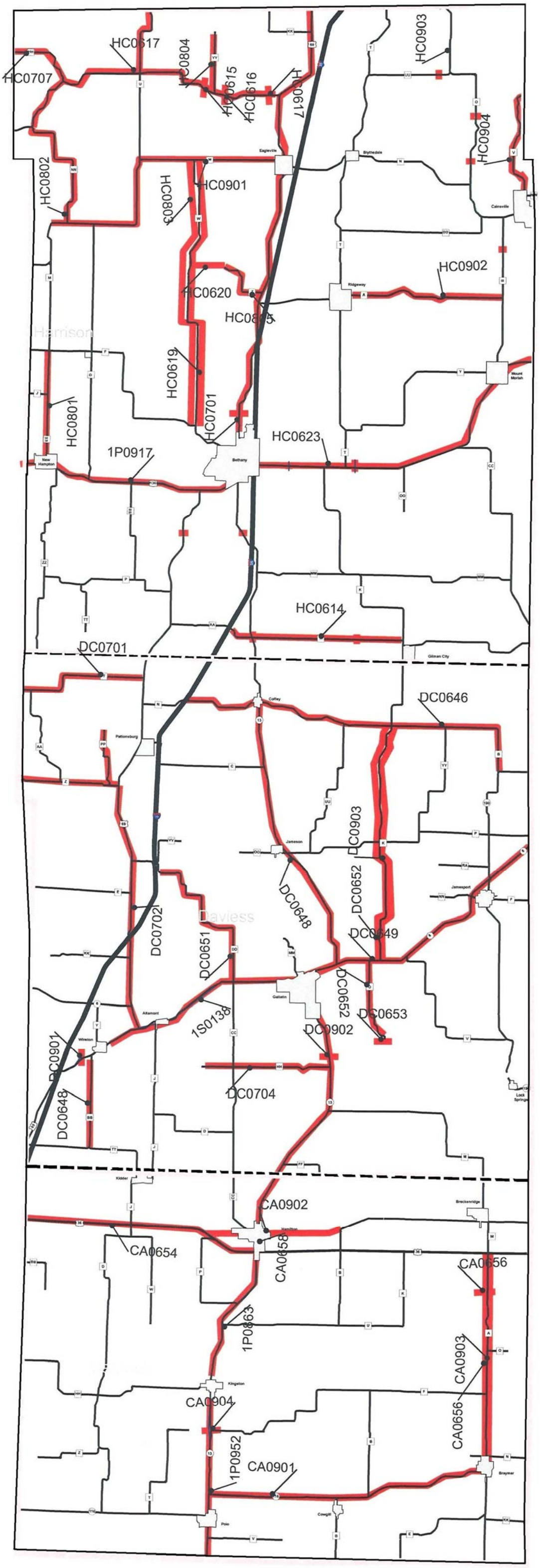
CA0654: Resurfacing and Shoulder Improvement on US Old 36 & BUS 36
CA0901: Resurfacing and Shoulder Improvement on Hwy 116
CA0903: Resurface and Shoulder Improvement on Rt. A
CA0904: Replace Bridge (J0340) over log creek on Mo 13
CA0905: Polo RR Bridge maintenance
CA0906: MAJOR PROJECT - Scoping MO. 13 south of Hwy 36

**DAVIESS COUNTY**

DC0645: Shoulder Improvement on Rt. Z
DC0646: Resurfacing and Shoulder Improvement on Rt. B
DC0647: Resurfacing and Shoulder Improvement on Mo 13
DC0648: Resurfacing on Rt. BB
DC0650: Resurfacing and Shoulder Improvement on Rt. PP
DC0651: Resurfacing on Rt. DD
DC0652: Resurfacing on Rt. K to
DC0701: Resurfacing and Shoulder Improvement on Rt. T
DC0702: Resurface and Shoulder Improvement on US 69
DC0704: Resurface and Shoulder Improvement on HH
DC0902: Repair of exposed bridge tube at Honey Creek on MO 13
DC0903: Resurfacing on Rt. K
DC0904: Bridge over Honey Creek on MO 13 needs maintenance

**HARRISON COUNTY**

HC0611: Provide signage at "T" intersection on US 69
HC0613: Replace narrow bridge (PO177) over Hickory Creek on Rt. H
HC0618: Shoulder Improvements on Mo 46
HC0619: Resurface Rt. W from Rt. F to Rt. M
HC0620: Complete construction of Rt. Z through to Rt. W
HC0621: Re-deck Bridge (L0631) over West Fork Big Creek on US 69
HC0701: Shoulder work from Bethany to Iowa line on US 69
HC0706: Resurfacing and Shoulder Improvement on Rt. U
HC0707: Resurfacing and shoulder improvement on Rt. HH
HC0801: Resurfacing on Rt EE
HC0802: Resurfacing and Shoulder Improvement on Rt. NN
HC0803: Resurfacing on Rt. W
HC0804: Resurfacing on Rt. YY
HC0805: Resurfacing on Rt. Z
HC0901: Resurfacing & shoulder improvements on Rt. M – Eagleville to Worth Co. Line
HC0902: Resurfacing & shoulder improvements on Rt. A from Ridgeway to Rt. B
HC0903: Resurfacing & shoulder improvement on Rt. O from Rt. N to State line
HC0904 :Resurfacing and shoulder improvement on Rt. V from Cainsville to Mercer County line.
HC0905: 3rd Bridge north of Mt. Moriah on Rt. B needs maintenance.
HC0906: Bridge north of Cainsville on Rt. V needs maintenance.
HC0906: Intersection of Rt. H and Hwy 13 has visibility problems (safety issue)
HC0907: Resurfacing Rt. A from Ridgeway to Hwy 69



**4070**

**Carroll County**

CR0623: construct road to direct traffic around rather than through the City of Norborne
CR0265: construct turning lanes at the intersection of County roads 307 & 413 East of Carrollton
CR0626: construct road to divert through traffic around the City of Carrollton
CR0627: resurfacing and shoulder upgrades on US 65 county wide (US 65 Corridor)
CR0701: construct turning Lane for American Energy Producer, on Hwy 65 just south of Rt. Z
CR0702: construct turning lane on US 24 for Ray-Carroll Elevator and Show-Me Ethanol plant
CR0703: upgrade Mo 10 between Carrollton and Norborne, elevating flood prone sections
CR0901: resurfacing and shoulder improvements on Hwy 24 from Hwy 65 one mile eastward
CR0902: resurfacing and shoulder improvements on Hwy 10 from Norborne to the Ray County Line

**Chariton County**

CH0601: shoulder upgrade on US 24
CH0602: shoulder upgrade on MO 5 from Keytesville to the Linn County line
CH0603: realignment and elevation of a section of Hwy 129
CH0604: realignment of a section of Hwy 129
CH0606: replacement of bridge over Puzzle Creek on Rt. P
CH0628: elevation of a section of Rt. D
CH0701: widen bridge on the west edge of Keytesville on US 24 to make it safer for buggy traffic
CH0702: resurfacing and shoulder upgrades to Rt. P from Lagonda to Hwy 129
CH0704: elevation of flood prone section of Hwy 139 east of Sumner to Rt. YY
CH0801: guardrail needed on North approach to Chariton River bridge north of Salisbury on Hwy 129

**Grundy County**

GC0727: resurfacing and shoulder upgrades on US 65 countywide
GC0627: resurfacing and shoulder upgrades on Hwy 6 countywide
GC0629: maintenance to drainage tubes at intersection of 9th and Harris in Trenton
GC0901: make Hwy 65 four lanes between Trenton and Chillicothe
GC1001: Overlay Iowa Blvd. and Hwy 6 ROW on the edge of Trenton for new Hospital and Barton Campus
GC1002: Install Intersection traffic lights at 9th & Kitty St. in Trenton

**Linn County**

LN0634: replace bridge over Parsons Creek on Hwy 139
LN0635: replace bridge over Locust Creek on Rt. B
LN0636: resurfacing and shoulder upgrades on Rt. P
LN0637: replace bridge over Long Branch on Rt. C
LN0638: resurfacing, shoulder upgrade to Hwy 5
LN0639: replace bridge over West Yellow Creek on Rt. C
LNO640: replace bridge over Sights Branch on Rt. U
LNO641: replace bridge over Clarks' creek on Rt. WW
LN0642: replace bridge over Van Dorsen Creek on Rt. WW
LN0643: replace bridge over Mussel Fork on WW
LN0644: shoulder work on US 36
LN0703: more frequent maintenance needed on Mo 5 from US 36 to Sullivan County line
LN0901: flood prone bridge between Hwy 11 & Shelby on Rt. C needs to be elevated

LN0902: replace bridge over Locust Creek west of Linneus on Rt. B

**Livingston County**

LV0701: replace single lane bridge over Shoal Creek north of Dawn on Rt. C
LV0702: intersection of Hwy 190 & Hornet Dr. at the Chillicothe High school needs signals
LV0703: shoulder upgrade on Hwy 190
LV0704: shoulder upgrade on Rt. V
LV0705: construct overpass walkway from YMCA building to Simpson Park needed over US 65
LV0706: convert County Rd. 216 to blacktop between Rt. B and US 65 (making it part of Rt. B)
LV0801: construct bike/pedestrian paths along 190 in the vicinity of the City of Chillicothe
LV0902: develop abandoned railroads into walking/biking trails

**Mercer County**

MC0629: resurfacing and shoulder upgrade on Rt. Z
MC0630: replace narrow bridge over West Honey Creek on Rt. E
MC0631: replace narrow bridge over Little Medicine Creek on Rt. E
MC0634: resurfacing and shoulder work on Hwy 136 from Harrison to Putnam County lines
MC0701: replace bridge over Muddy Creek, on Rt. E 1.3 miles west of US 65

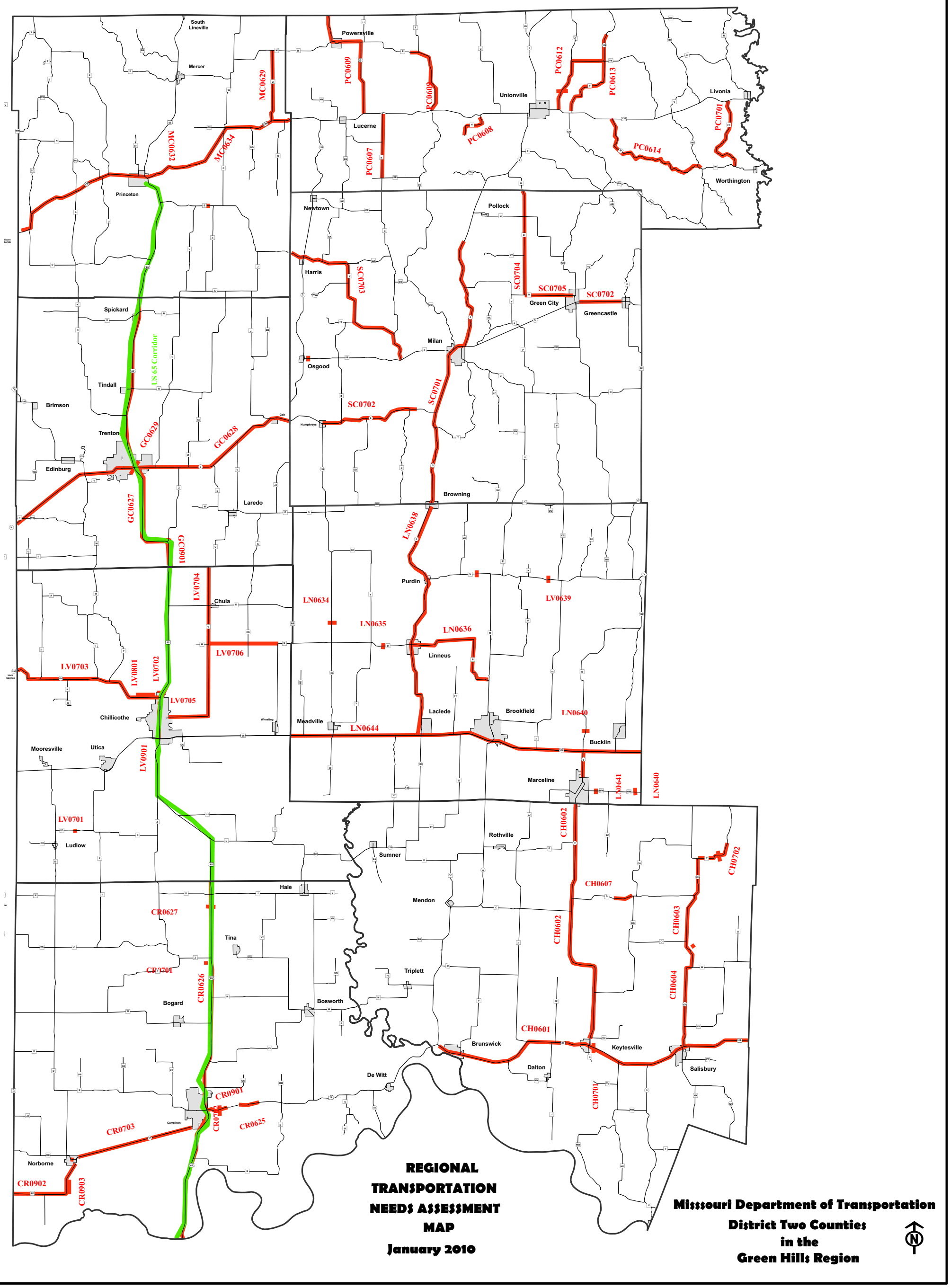
**Putnam County**

PC0606: replace bridge over North Blackbird creek on Hwy 129
PC0607: resurfacing and should upgrades on Rt. K from Hwy 136 southward to the first county road
PC0608: convert Rt. H from blacktop to gravel
PC0609: resurfacing and shoulder upgrades on Hwy 139 from Hwy 136 northward to the Iowa line
PC0610: resurfacing and shoulder upgrades on Rt. E from Hwy 136 northward to St. John
PC0611: resurfacing and shoulder upgrades on Rt. K from Hwy 136 southward to Rt. EE
PC0612: resurfacing and shoulder upgrades on Hwy 129 from Hwy 136 northward to Rt. Y
PC0613: resurfacing and shoulder upgrades on Rt. Y from Hwy 136 northward to Mendota
PC0614: resurfacing and shoulder upgrades on Rt. W from Hwy 136 southward to Martinstown
PC0700: resurfacing and shoulder upgrades on Rt. FF from Hwy 136 southward to Worthington

**Sullivan County**

SC0701: resurfacing and shoulder upgrades on Hwy 5 from 3 miles north of Browning to 3 miles south of Pollock
SC0702: resurfacing and shoulder upgrades on Hwy 6 from Humphreys to Reger and Green City to Novinger
SC0703: resurfacing and shoulder upgrades on Rt. E to accommodate heavy commercial traffic
SC0603: resurfacing and shoulder upgrades on Rt. B from Lemons to Rt. N
SC0704: resurfacing and shoulder upgrades to Rt. N from Rt. B to Green City
SC0901: road widening and shoulder upgrade to Rt. B
SC0902: resurfacing and shoulder upgrades to Rt. E
SC0903: replace narrow bridge over Medicine Creek on Rt. PP
SC0904: resurfacing and shoulder upgrade on Hwy 5 from Putnam Co. line to Milan and Hwy 6 Jct. to Linn Co. Line
SC0905: replace bridges on Hwy 5 north of Milan with culverts

SC0907: Install flashing red/yellow light at the Jct. of 5 & 6 on the east edge of Milan




# REGIONAL TRANSPORTATION NEEDS ASSESSMENT MAP

January 2010

Misssouri Department of Transportation

District Two Counties in the Green Hills Region

# CHAPTER 8

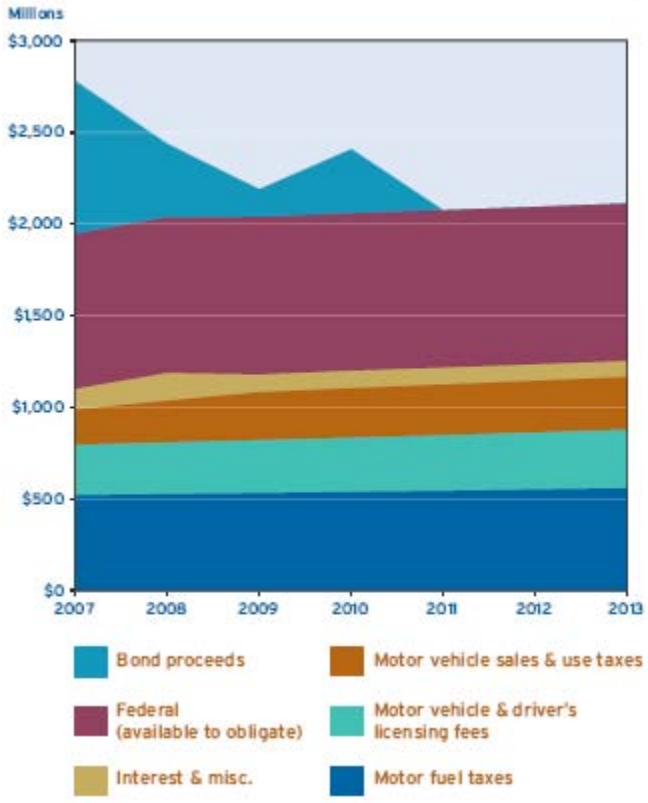
## Federal Funding Sources

Federal revenue sources include the 18.4 cents per gallon tax on gasoline and 24.4 cents per gallon tax on diesel fuel. Other sources include various taxes on tires, truck and trailer sales, and heavy vehicle use. These highway user fees are deposited in the federal Highway Trust Fund and distributed to the states based on formulas prescribed by federal law through six-year transportation funding acts. The current transportation bill, “Safe, Accountable, Flexible, Efficient Transportation Act: A Legacy for Users” (SAFETEALU), expires in 2009. Approximately 40 percent of Missouri’s transportation revenue comes from the federal government. Since 1992, Missouri’s federal funding growth has averaged 9 percent each year. SAFETEA-LU continued this strong growth; however, the anticipated federal revenues are not sufficient to support these funding levels. Federal receipts must be supplemented by spending down accumulated balances in the Highway Trust Fund to maintain SAFETEALU funding levels. A significant drop in federal funds will cause a dramatic drop in Missouri’s highway and bridge construction and maintenance.

The U.S. Department of Transportation is advising states that by 2010, the large Highway Trust Fund balance will be spent down, and funding will be insufficient to continue federal aid at SAFETEA-LU levels. According to the American Association of State Highway and Transportation Officials, an amount equivalent to a three cents per gallon increase in federal fuel taxes must be identified to sustain federal programs at the level guaranteed by SAFETEA-LU. Between 2010 and 2015, it would take the equivalent of an additional 7-cent per gallon increase in federal fuel taxes to restore the program’s purchasing power to 1998 levels. Unless Congress takes action to increase revenues to the Highway Trust Fund, Missouri’s federal transportation revenues will decrease dramatically.

The stability and predictability of future transportation revenues are subject to a host of variables. However, using historical trends and various economic indicators, Figure 1 provides an estimate of Missouri's transportation revenues for state fiscal years 2007 through 2013. MoDOT is assuming federal funds are continued at SAFETEA-LU levels after the 2009 expiration of the funding bill. Estimated revenue decreases from $2.8 billion in 2013, due to the end of the Amendment 3 bonding program.

**Figure 1: Missouri's Anticipated Highway and Bridge Revenues for State Fiscal Years 2007–2013**




## Federal Lands Highway Program

The Federal Lands Highway Program, as an adjunct to the Federal-Aid Highway Program, covers highway programs in cooperation with federal-land managing agencies. It provides transportation-engineering services for planning, design, construction and rehabilitation of the highways and bridges providing access to federally owned lands. The Federal Lands Highway organization also provides training, technology, deployment, engineering services and products to other customers. The Federal Highway Administration administers the Federal Lands

Highway Program, including survey, design and construction of forest highway system roads, parkways and park roads, Indian reservation roads, defense access roads and other federal-lands roads. The Federal Highway Administration, through cooperative agreements with federal-land managing agencies such as the National Park Service, Forest Service, Military Traffic Management Command, Fish and Wildlife Service and the Bureau of Indian Affairs, administers a coordinated federal-lands program consisting of forest highways, public-lands highways, park roads and parkways, refuge roads and Indian reservation roads. This program provides funding for more than 90,000 miles of federally owned and public authority-owned roads that serve federal lands. The agency's Federal Lands Highway Office provides program coordination, administration, and design and construction engineering assistance and directs the conduct of transportation planning and engineering studies.

**FAA Airport and Airway Trust Fund (AATF)**

The Airport and Airway Trust Fund (AATF), created by the Airport and Airway Revenue Act of 1970, provides funding for the federal commitment to the nation’s aviation system through several aviation-related excise taxes. Funding currently comes from collections related to passenger tickets, passenger flight segments, international arrivals/departures, cargo waybills, aviation fuels and frequent flyer mile awards from non-airline sources like credit cards. State Funding Sources

Missouri’s transportation needs are substantial, and the costs of the needs are enormous. Yet, the sources that have traditionally provided transportation funding in Missouri and in the nation are not adequate. They do not keep pace with the rising cost of construction and maintenance, and they provide little for alternative modes of transportation. Another complicating factor is that Missouri’s transportation revenues are small in comparison to many other states. Missouri’s

revenue per mile of state highway is one of the lowest in the country and in the region. Missouri ranks 44th nationally in revenue per mile on the state highway system and 43rd when comparing state transportation revenues to the average daily miles driven. Missouri receives both state and federal transportation funds. Much of the funding comes with strings attached, limiting the activities for which it can be used. For example, the state motor fuel tax can only be spent on highways and bridges. It is not available for alternative modes of transportation. Federal funds may be earmarked for specific projects or limited to specific types of construction such as interstate maintenance. Some federal and state funds are allocated to specific modes of transportation such as transit or passenger rail.

## Highway and Bridge Revenue Sources

State Motor fuel tax

The workhorse of Missouri's state transportation revenue is the motor fuel tax. Assessed at a rate of 17-cents per gallon, it produces 45 percent of state transportation revenues. However, the motor fuel tax is not indexed to keep pace with inflation, and there has been no rate increase since 1996. History shows that even when fuel prices rise dramatically, Missourians are generally unwilling or unable to turn to other modes of transportation, continuing to drive their personal vehicles and to purchase fuel to do so. Trends show motor fuel tax revenues increase about one percent annually. However, if fuel prices rise and stay at higher rates, more Missourians may turn to more fuel-efficient vehicles, make fewer trips or seek other transportation options they had previously avoided. While good for the environment, these actions erode motor fuel tax revenues. Motor vehicle sales and use taxes

Motor vehicle sales and use taxes provide approximately 25 percent of state transportation revenues. This is the one source of state revenue that has recently provided substantial additional resources for transportation. In November 2004, Missouri voters passed Amendment 3. This set in motion a four-year phase in, redirecting motor vehicle sales taxes previously deposited in the state's General Revenue Fund to a newly created State Road Bond Fund. In accordance with this constitutional change, MoDOT began selling bonds to fund road improvements. MoDOT estimated the bonding capacity provided by the new revenues at $1.7 to $1.9 billion.

Similar to home mortgages used to buy or build a house, bond proceeds provide funds immediately to make necessary road and bridge improvements. The principal and interest is then paid back over the life of the asset, which in MoDOT's case is the road and bridge improvement. Some bond proceeds have already been used to fund the Smooth Roads Initiative, which brought 2,200 miles of Missouri's busiest highways up to good condition. Proceeds were also used to accelerate a number of major projects originally planned to start in the later years of the current five-year construction program called the Statewide Transportation Improvement Program (STIP) and allowed other major projects for which no funding was available to be added to the STIP.

It is important to note that only the new Amendment 3 revenues are used to pay principal and interest on Amendment 3 debt. When the Amendment 3 bond proceeds are spent, the new Amendment 3 revenues will be committed to repayment of principal and interest through state fiscal year 2026. When the process of redirecting motor vehicle sales taxes to transportation is fully phased in, the rate of growth in this revenue source slows dramatically. Annual growth is projected at 2.5 percent, which, like the rate of increase in motor fuel taxes, is less than the rate of increase in construction and maintenance costs. A

complicating factor is that as consumers look for ways to decrease personal transportation costs, one option is turning to smaller, more fuel-efficient vehicles. Since these vehicles cost less, motor vehicle sales and use taxes are lower, resulting in less transportation revenues.

Motor vehicle and driver's licensing fees

Motor vehicle and driver's licensing fees also provide approximately 25 percent of Missouri's state transportation revenue. Similar to motor fuel tax, these fees are not indexed to keep pace with inflation, and there have been no annual registration fee increases since 1984. This revenue source increases at a rate of about 2.5 percent annually. It is important to remember that cities and counties receive a substantial portion of these state transportation revenues. For example, cities and counties receive approximately five cents of the state's 17-cent per gallon fuel tax. They also receive approximately 15 percent of the remaining state transportation revenues discussed earlier. These funds go directly to cities and counties to fund local transportation.

Interest earned on invested funds and other miscellaneous collections

The remaining five percent of state transportation revenues comes from interest earned on invested funds and other miscellaneous collections. During the Amendment 3 bonding program, cash balances in state transportation funds have been unusually high. Bond proceeds are received in large increments and are paid out over time as project costs are incurred. When the Amendment 3 projects are completed, the balance of state transportation funds will be substantially less, and interest income will also decline.

## Funding for Alternative Modes of Transportation

Transportation funding for alternative modes has historically been less than five percent of all MoDOT transportation revenue (approximately $60 million annually). Funding for alternate modes of transportation comes from a variety of sources including motor vehicle sales taxes, aviation fuel and sales taxes, railroad regulation fees, state general revenue funds and federal grants. Figure 15 shows estimated revenues dedicated to alternative modes of transportation for state fiscal years 2007-2013 are expected to remain relatively constant.

Much of the funding for alternative modes comes with strings attached, limiting the activities for which it can be used. For example, aviation fuel taxes, which include excise and sales taxes, must be spent on aviation projects. Revenues from railroad regulation fees and a 25-cent fee that is paid upon registration or renewal of motor vehicles must be spent on rail projects. However, funding from motor vehicle sales taxes and general revenue has flexibility to be spent on various modes.

Missouri plans to invest almost 50 percent of these funds in transit, approximately 30 percent in aviation, approximately 15 percent in rail and the remaining 5 percent in waterways. These funds are used to support operating, maintenance, capital and planning activities for Missouri's transit and rail providers, airports and port authorities. With the transportation bill funding is typically set aside for local enhancement and safe routes to school projects, including sidewalks, bike and pedestrian paths. Funding Tools for the Local or Regional Level

Funding for local county and municipal roadway maintenance and construction comes primarily from the state-distributed motor fuel tax, individual city and

county capital improvement sales taxes and transportation sales taxes. Additional potential revenue options are available for local or regional transportation projects.

Economic Development Administration - Public Works and Economic Development Program

Through the Public Works and Economic Development Act of 1965, the United States Department of Commerce, through its EDA branch, offers project grants to enhance regional competitiveness and promote long-term economic development in regions experiencing substantial economic distress. EDA provides Public Works investments to help distressed communities and regions revitalize, expand, and upgrade their physical infrastructure to attract new industry, encourage business expansion, diversify local economies and generate or retain long-term private sector jobs and investment. Current priorities include proposals that help support existing industry clusters, develop emerging new clusters or attract new economic drivers.

Project grants may be used for investments in facilities such as water and sewer systems, industrial access roads, industrial and business parks, port facilities, railroad sidings, distance learning facilities, skill-training facilities, business incubator facilities, redevelopment of brownfields, eco-industrial facilities and telecommunications infrastructure improvements needed for business retention and expansion. Eligible activities include the acquisition or development of public land and improvements for use for a public works, public service or development facility, and acquisition, design and engineering, construction, rehabilitation, alteration, expansion, or improvement of publicly-owned and operated development facilities, including related machinery and equipment. A project must be located in a region that, on the date EDA

receives an application for investment assistance, satisfies one or more of the economic distress criteria set forth in 13 C.F.R. 301.3(a). In addition the project must fulfill a pressing need of the region and must: 1) improve the opportunities for the successful establishment or expansion of industrial or commercial plants or facilities in the region; 2) assist in the creation of additional long-term employment opportunities in the region; or 3) primarily benefit the long-term unemployed and members of low-income families. In addition, all proposed investments must be consistent with the currently approved Comprehensive Economic Development Strategy (CEDS) for the region in which the project will be located, and the applicant must have the required local share of funds committed, available and unencumbered. Also, the project must be capable of being started and completed in a timely manner.

USDA Rural Development

Community Programs, a division of the Housing and Community Facilities Programs, is part of the United States Department of Agriculture's Rural Development mission area. Community Programs administers programs designed to develop essential community facilities for public use in rural areas. These facilities include schools, libraries, childcare, hospitals, medical clinics, assisted living facilities, fire and rescue stations, police stations, community centers, public buildings and transportation. Through its Community Programs, the Department of Agriculture is striving to ensure that such facilities are readily available to all rural communities. Community Programs utilizes three flexible financial tools to achieve this goal: the Community Facilities Guaranteed Loan Program, the Community Facilities Direct Loan Program, and the Community Facilities Grant Program.

Community Programs can make and guarantee loans to develop essential community facilities in rural areas and towns of up to 20,000 in population. Loans and guarantees are available to public entities such as municipalities, counties, and special-purpose districts, as well as to non-profit corporations and tribal governments. Applicants must have the legal authority to borrow and repay loans, to pledge security for loans, and to construct, operate and maintain the facilities. They must also be financially sound and able to organize and manage the facility effectively. Repayment of the loan must be based on tax assessments, revenues, fees, or other sources of money sufficient for operation and maintenance, reserves and debt retirement. Feasibility studies are normally required when loans are for start-up facilities or existing facilities when the project will significantly change the borrower's financial operations. The feasibility study should be prepared by an independent consultant with recognized expertise in the type of facility being financed.

Community Programs can guarantee loans made and serviced by lenders such as banks, savings and loans, mortgage companies which are part of bank holding companies, banks of the Farm Credit System or insurance companies regulated by the National Association of Insurance Commissioners. Community Programs may guarantee up to 90% of any loss of interest or principal on the loan. Community Programs can also make direct loans to applicants who are unable to obtain commercial credit. Loan funds may be used to construct, enlarge, or improve community facilities for health care, public safety and public services. This can include costs to acquire land needed for a facility, pay necessary professional fees and purchase equipment required for its operation. Refinancing existing debts may be considered an eligible direct or guaranteed loan purpose if the debt being refinanced is a secondary part of the loan, is associated with the project facility and if the applicant's creditors are unwilling to extend or modify terms in order for the new loan to be feasible.

Additionally, Community Programs also provides grants to assist in the development of essential community facilities in rural areas and towns of up to 20,000 in population. Grants are authorized on a graduated scale. Applicants located in small communities with low populations and low incomes will receive a higher percentage of grants. Grants are available to public entities such as municipalities, counties, and special-purpose districts, as well as non-profit corporations and tribal governments. In addition, applicants must have the legal authority necessary for construction, operation, and maintenance of the proposed facility and also be unable to obtain needed funds from commercial sources at reasonable rates and terms.

Grant funds may be used to assist in the development of essential community facilities. Grant funds can be used to construct, enlarge, or improve community facilities for health care, public safety and community and public services. This can include the purchase of equipment required for a facility's operation. A grant may be made in combination with other Community Facilities financial assistance such as a direct or guaranteed loan, applicant contributions or loans and grants from other sources. The Community Facilities Grant Program is typically used to fund projects under special initiatives, such as Native American community development efforts, child care centers linked with the Federal government's Welfare-to-Work initiative, Federally-designated Enterprise and Champion Communities and the Northwest Economic Adjustment Initiative area.

Community Development Block Grants

The Community Development Block Grant Program (CDBG) offers grants to small Missouri communities to improve local facilities, address critical health and safety concerns and develop a greater capacity for growth. The program offers funds for projects that can range from housing and street repairs to

industrial loans and job training. State CDBG funds are only available to non-entitlement areas (incorporated municipalities under 50,000 and counties under 200,000 in population). Other communities receive funds directly through the Entitlement Communities Grants program.

The entitlement program provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low-income and moderate-income persons. HUD awards grants to entitlement community grantees to carry out a wide range of community development activities directed toward revitalizing neighborhoods, economic development and providing improved community facilities and services. Entitlement communities develop their own programs and funding priorities. However, grantees must give maximum feasible priority to activities which benefit low- and moderate-income persons. A grantee may also carry out activities which aid in the prevention or elimination of slums or blight. Additionally, grantees may fund activities when the grantee certifies that the activities meet other community development needs having a particular urgency because existing conditions pose a serious and immediate threat to the health or welfare of the community where other financial resources are not available to meet such needs. CDBG funds may not be used for activities which do not meet these broad national objectives.

## Sales Tax

The 4.225 percent state sales/use tax rate in Missouri is lower than the rates in 35 other states. Missouri communities have the option of adopting a local sales tax, generally ranging from one-half to one percent. Counties may also adopt a sales tax generally ranging from one-fourth to one percent that can be used for transportation.

## Use Tax

Use tax is similar to sales tax, but is imposed when tangible personal property comes into the state and is stored, used or consumed in Missouri. Communities have the option of adopting a local use tax equal to the local sales tax for that community to use for transportation expense.

## Local Option Economic Development Sales Tax

The Local Option Economic Development Sales Tax, approved by the Missouri General Assembly in 2005, allows citizens to authorize a supplemental sales tax dedicated exclusively for certain economic development initiatives in their home municipality. The state statute section governing this program is found at 67.1305 RSMo.

The voter-approved tax of not more than one half per cent is charged on all retail sales made in the municipality that are subject to sales taxes under Ch.144 RSMo. Missouri statutes define “municipality” as an incorporated city, town, village or county. Revenues generated by the tax may not be used for retail developments unless such retail projects are limited exclusively to the redevelopment of downtown areas and historic districts. A portion of the revenues may be used for project administration, staff and facilities, and at least

twenty per cent of the funds raised must be used for projects directly related to long-term economic preparation, such as land acquisition, installation of infrastructure for industrial or business parks, water and wastewater treatment capacity, street extensions and for matching state or federal grants related to such long-term projects. Any remaining funds may also be used for marketing, training for advanced technology jobs, grants and loans to companies for employee training, equipment and infrastructure and other specified uses.

### Missouri Downtown and Rural Economic Stimulus Act

The Missouri Downtown and Rural Economic Stimulus Act (MODESA) became a law in 2003. MODESA authorizes public financing for qualifying development projects in the "downtowns" of this state's cities and towns. The mechanism is similar to the one used in State Tax Increment Financing. A portion of the new state and local taxes created by a project can be diverted to fund eligible public infrastructure and related costs for a period of up to 25 years.

### Neighborhood Improvement District

A Neighborhood Improvement District (NID) may be created in an area desiring certain public-use improvements that are paid for by special tax assessments to property owners in the area in which the improvements are made. The kinds of projects that can be financed through an NID must be for facilities used by the public, and must confer a benefit on property within the NID. An NID is created by election or petition of voters and/or property owners within the boundaries of the proposed district. Election or petition is authorized by a resolution of the governing body of the municipality in which the proposed NID is located. Language contained in the petition narrative or ballot question must include certain information including, but not limited to a full disclosure of the scope of

the project, its cost, repayment and assessment parameters to affected property owners within the NID.

Community Improvement District

A Community Improvement District (CID) may be either a political subdivision or a not-for-profit corporation. CID's are organized for the purpose of financing a wide range of public-use facilities and establishing and managing policies and public services relative to the needs of the district. By request petition, signed by property owners owning at least 50% of the assessed value of the real property, and more than 50% per capita of all owners of real property within the proposed CID, presented for authorizing ordnance to the governing body of the local municipality in which the proposed CID would be located. Unlike a Neighborhood Improvement District, a CID is a separate legal entity, and is distinct and apart from the municipality that creates the district. A CID is, however, created by ordnance of the governing body of the municipality in which the CID is located, and may have other direct organizational or operational ties to the local government, depending upon the charter of the CID.

Tax Increment Financing

Local Tax Increment Financing (Local TIF) permits the use of a portion of local property and sales taxes to assist funding the redevelopment of certain designated areas within your community. Areas eligible for Local TIF must contain property classified as a "Blighted", "Conservation" or an "Economic Development" area, or any combination thereof, as defined by Missouri Statutes. The idea behind Local TIF is the assumption that property and/or local sales taxes (depending upon the type of redevelopment project) will increase in the

designated area after redevelopment, and a portion of the increase of these taxes collected in the future (up to 23 years) may be allocated by the municipality to help pay the certain project costs, partially listed above.

Transportation Development Districts

Transportation Development Districts (TDDs) are organized under the Missouri Transportation Development District Act, Sections 238.00 to 238.275 of the Missouri State Statutes. The district may be created to fund, promote, plan, design, construct, improve, maintain and operate one or more projects or to assist in such activity. Transportation Development Corporations

Transportation Development Corporations (TDCs) are organized under the Missouri Transportation Corporation Act, Sections 238.300 to 238.367 of the Missouri State Statutes. TDCs act in promoting and developing public transportation facilities and systems and in promoting economic development.

Demands for transportation improvements have greatly outpaced the funds available to meet them. In response to this demand, the Missouri Department of Transportation has established various mechanisms for successful public/public and public/private partnerships. These expand financing options for transportation projects that serve a public purpose, including: highway and rail projects, transit equipment, air and water transportation facilities and elderly/handicapped vehicles. The benefits to a project assisted by these partnerships may include: inflation cost savings, early economic and public benefits, financing tailored to the project's needs and a reduced cost of project financing.

Partnership Debt-Financing Programs

These programs make loans to a project that has to be repaid.

**Missouri Transportation Finance Corporation (MTFC*)*** - a non-profit lending corporation established to assist local transportation projects, and to administer the Statewide Transportation Assistance Revolving Fund (STAR Fund)

**State Transportation Assistance Revolving Fund (STAR Fund)** - a fund created by the Missouri General Assembly to assist in the planning, acquisition, development and construction of non-highway transportation facilities.

Federal Aviation Administration - Airport Improvement Program

The Airport Improvement Program (AIP) provides grants to public agencies - and, in some cases, to private owners and entities - for the planning and development of public-use airports that are included in the National Plan of Integrated Airport Systems (NPIAS). For large and medium primary hub airports, the grant covers 75 percent of eligible costs (or 80 percent for noise program implementation). For small primary, reliever, and general aviation airports, the grant covers 95 percent of eligible costs. AIP grants for planning, development or noise compatibility projects are at or associated with individual public-use airports (including heliports and seaplane bases). A public-use airport is an airport open to the public that also meets the following criteria:

1 Publicly owned, or

2 Privately owned but designated by the FAA as a reliever, or

3 Privately owned but having scheduled service and at least 2,500 annual enplanements.

Further, to be eligible for a grant, an airport must be included in the NPIAS. The NPIAS, which is prepared and published every 2 years, identifies public-use airports that are important to public transportation and contribute to the needs of civil aviation, national defense, and the postal service. The description of eligible grant activities is described in the authorizing legislation and relates to capital items serving to develop and improve the airport in areas of safety, capacity and noise compatibility. In addition to these basic principles, a grantee must be legally, financially and otherwise able to carry out the assurances and obligations contained in the project application and grant agreement.

Eligible projects include those improvements related to enhancing airport safety, capacity, security and environmental concerns. In general, sponsors can use AIP funds on most airfield capital improvements or repairs except those for terminals, hangars, and non-aviation development. Any professional services that are necessary for eligible projects - such as planning, surveying and design - are eligible as is runway, taxiway and apron pavement maintenance. Aviation demand at the airport must justify the projects, which must also meet Federal environmental and procurement requirements. Projects related to airport operations and revenue-generating improvements are typically not eligible for funding. Operational costs - such as salaries, maintenance services, equipment and supplies - are also not eligible for AIP grants.

Recreational Trails Program - Department of Natural Resources

The Recreational Trails Program was authorized in the 2005 Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU). The Recreational Trails Program is a federal-aid assistance program that helps states provide and maintain recreational trails for both motorized and non motorized recreational trails uses. Annual funding for this program is

approximately $1,000,000. The program provides funds for many recreational trail uses, such as pedestrian (hiking, running, wheelchair use), bicycling, inline skating, equestrian, cross-country skiing, off-road motorcycling, all-terrain vehicle riding and four-wheel driving. The Department of Natural Resources holds a competitive grant round each year and distributes the funding in response to recreational trail needs within the state. The Recreational Trails Program encourages trail enthusiasts to work together to provide a wide variety of recreational trail opportunities.

## Transportation Enhancement Program

The Transportation Enhancement Program requires each state to reserve 10 percent of its Federal Surface Transportation Program funds annually for designated Transportation Enhancement activities to ensure transportation spending supports more than just roads. This program provides funding through a competitive selection process for transportation related activities other than routine highway and bridge construction. Transportation Enhancement funds are available for a variety of project types, that are located in both rural and urban communities. These projects help create more travel choices by providing funding to construct sidewalks, bike lanes and to convert abandoned railroad rights of way to trails. Communities may also use the Transportation Enhancement Program to revitalize local regional economies by restoring historic buildings, renovating streetscapes or providing transportation museums and visitor centers.

Missouri Safe Routes to School Program

Missouri Safe Routes to School Program (SRTS) was created by Section 1404 of the SAFETEA-LU in 2005. The Highway Safety Division is responsible for administration of SRTS federal funds. The funding is used to provide safer biking and walking accommodations for children in kindergarten through eighth grade, including those with disabilities. There are two areas eligible for funding, behavioral and infrastructure. Behavioral activities may be used for public awareness and outreach campaigns, traffic education, and enforcement efforts. Infrastructure projects include engineering and construction efforts such as sidewalks, crosswalks, lighting and bike racks. State, local, and regional agencies, schools, and non-profit organizations may submit applications to MoDOT to receive a grant from federal safe routes to school funds.

## Cost Estimates for Transportation Improvements

Major highways' condition - $7.6 billion ($380 million annually for 20 years)

MoDOT's goal is to maintain 85 percent of the major highway network in good or better condition. Because of highways' life cycles, improving more than 85 percent of the major highways would likely result in repairing roads that have not reached the end of their useful life. To determine the cost of achieving this goal, MoDOT is assuming a mix of mid-term and long-term pavement treatments, the use of bolder stripes, rumble stripes, and shoulder and sign improvements. These assumptions indicate the investment would be approximately $380 million annually to maintain the 85-percent goal. This cost could increase or decrease depending on material costs, inflation, construction inspection and project designs.

Minor highways' condition - $4.2 billion ($210 million annually for 20 years)

For these improvements, MoDOT is assuming pavement treatments like chip seals and thin-lift overlays, striping and new signing. These assumptions indicate the investment would be approximately $210 million per year. This cost could increase or decrease depending on material costs, inflation, construction inspection and project designs.

Bridges on major highways - $800 million ($40 million annually for 20 years)

To estimate the cost of maintaining bridges on major routes in good condition, MoDOT uses an assumption of $160 per square foot of bridge deck. This equals an annual investment of approximately $40 million for 20 years. This annual cost is much lower than costs for roads, because the expected life of a bridge is longer.

Bridges on minor highways - $1.6 billion ($80 million annually for 20 years)

To estimate the cost of maintaining bridges on minor routes in good condition, MoDOT uses an assumption of $140 per square foot of bridge deck. This equates to an annual investment of approximately $80 million for 20 years.

Major bridges - $1.08 billion ($54 million annually for 20 years)

To estimate the cost of addressing the needs of Missouri's 200 major bridges, MoDOT uses the following assumptions. The average square footage of major bridges' decks is approximately 100,000 square feet. The approximate average cost to reconstruct or perform major rehabilitation on the major bridges is $270 per square foot. Applying these assumptions and addressing two of these structures every year equals an average annual investment of $54 million.

Examples of major bridges on Missouri's state highways include the twin river crossings in Jefferson City, the Paseo Bridge in Kansas City and the Poplar Street Bridge in downtown St. Louis.

Interstates 70 and 44 - $7.2 billion, ($360 million annually for 20 years)

The two biggest expansion needs for Missouri – rebuilding the state's largest interstates: I-70 and I-44 – address Missourians' expectations of improved safety and access, efficient mobility and connectivity, and enhanced freight movement and economic opportunities. Nearly 60 percent of the state's population lives within 30 miles of Interstate 70. Interstate 44 serves the area that has seen Missouri's highest population growth rate since 1990. This growth and demand on roads, which were built in the 1950s, require more in the future than treatments that merely hold the aging highways together. To successfully meet the needs of the state's future, both interstates require additional lanes and improved medians, and the possibility of dedicated truck lanes. To achieve key safety and economic benefits, these two expansion needs require an investment of approximately $7.2 billion.

Transit - $4 billion ($200 million annually for 20 years)

MoDOT's Missouri Statewide Passenger Transportation Study identified significant unmet public transit mobility needs in both rural and urban areas of the state. On average, Missouri's urban areas are approximately 50 percent underserved, while the rural areas of the state meet about one third of the demand. To increase transit services to meet the identified mobility gaps that fulfill Missourians' expectations for efficient movement of people and goods, for enhancing economic development, for improving safety and for developing a multi-modal system of transportation, an estimated $200 million is needed annually for 20 years. Since federal transit funding is capped by formula, it leaves increased state and local investments as the funding sources for Missouri's

transit services. To meet the demand for transit services, transit needs include additional buses, light rail vehicles and infrastructure to support the increase in trips. Other needs include facilities and amenity improvements such as shelters at bus stops and inter-modal connections. Improvements for operating and managing the systems are also needed. The study estimate does not include funding for capital-intensive projects such as the introduction or expansion of light rail services. For example, the recent extension of St. Louis' MetroLink was financed almost entirely from local funding at an approximate cost of $86 million per mile of light rail track. Cash strapped localities with limited potential for increased federal and local funds look to the state to meet the need for additional transit services.

Aviation - $710 million ($35.5 million annually for 20 years)

According to MoDOT's 2005 State Airport System Plan, there is annually $35.5 million in capital and maintenance needs in aviation. Current annual funding is approximately $25 to $30 million. Major needs of airports include extending runways to accommodate business jets, adding improvements to navigational aids and addressing safety improvements. These improvements could help address the public's expectations for safe traveling, economic development and efficient movement of people and goods. The public airports' funding from federal and state sources for 2001-2005 has totaled between $19 million and $29 million per year.

MoDOT's Statewide Freight Study reports that the 2022 anticipated annual cargo tonnage would be within each airport's current capabilities based upon airport runway lengths. However, based on growth the primary needs when looking ahead 20 years will be adequate taxiway space, equipment storage, maintenance areas and taxiway access points for trucks and courier vans. The

challenge for state and local planning and development agencies is to anticipate what will increase the number of planes and the cargo they carry. Ease of access, fluid traffic flow and limited congestion must be key objectives in enhancing air cargo operations and growth.

Ports and Waterways - $60 million ($3 million annually for 20 years)

Investment in Missouri's 13 ports is a beneficial economic development generator for the state, thus helping to meet an expectation of Missourians that the state's transportation system enhance the state's economy. Trends in inland freight movement support continual efforts to increase ports' capacity to maximize economic potential. As an example, MoDOT facilitated a state investment in SEMO Port of $500,000 in 2006 that helped generate private investment of over $200 million. A MoDOT survey, in conjunction with Missouri Public Port Authorities: Assessment of Importance and Needs, found the total of all port needs – critical, immediate, short-term and long-term – is approximately $61 million or $3 million per year for 20 years.

Freight Rail

MoDOT's investment in the state's rail system is primarily limited to addressing rails that intersect state-maintained highways. MoDOT's Statewide Freight Study made five recommendations for supporting freight movements in Missouri. One recommendation suggests strengthening intermodal connectors that impact Missouri's freight movement. The accessibility to major highways and other important transportation modes is a significant factor that influences new business development, new warehouse locations and new freight terminals and facilities.

According to the American Society of Civil Engineers (ASCE), for the first time since World War II, limited rail capacity has created significant chokepoints and delays. This problem is likely to get worse since freight rail tonnage is expected to increase by at least 50 percent by 2020. Public sector investments could help shift freight movement from highways to rail, providing congestion relief, improving safety and environmental and economic development benefits. The ASCE says the freight railroad industry needs to spend $175–$195 billion nationwide over the next 20 years to maintain existing infrastructure and expand for freight growth. The consequences of inadequate rail infrastructure investment will be borne by the public, not only by the rail industry. The American Association of State Highway and Transportation Officials estimates that shifting all freight nationwide currently carried by rail to trucks would cost shippers an additional $69 billion annually; this would mean higher prices for U.S. consumers. This increased truck traffic on the nation's highways will require an additional $64 billion in highway funds over the next 20 years to maintain the roads.

Passenger Rail - $1 billion ($50 million annually for 20 years)

The Midwest Regional Rail Initiative is an on-going effort to develop, improve and expand the rail system in the Midwest and is sponsored by the state transportation agencies of nine states: Illinois, Michigan, Minnesota, Missouri, Iowa, Indiana, Nebraska, Ohio and Wisconsin. Implementing the initiative's recommendations would provide approximately 90 percent of the region's population an opportunity of being within a one-hour trip of a train station or 30 minutes from a bus route, helping to meet customers' expectations for efficient travel and for blending transportation options in a seamless manner. Other specific benefits of the services identified in the initiative include a new transportation option in congested major rail corridors; a time-saving service for

short- to medium-distance trips; and a transportation system for individuals who do not or cannot drive a motor vehicle. A goal of the initiative is to improve passenger rail service with public investments in infrastructure and equipment to either eliminate or minimize public operating subsidies. Missouri's portion of the estimated operating and maintenance costs is $34 million (in total) for 20 years. Missouri's portion of infrastructure costs is estimated to be $980 million (in total) for 20 years. MoDOT is also exploring the extension of Amtrak, the state's only passenger rail service, between St. Louis and Springfield, another travel option for meeting the public's expectations regarding efficient movement of people. Passenger service expansion provides expanded mobility to the state's citizens and increases the possibility for tourism. A new passenger rail service from St. Louis to Springfield and then on to Branson provides an additional destination to thousands of travelers in the Chicago area and other rail lines beyond St. Louis.

Bicycle and Pedestrian

Bicycle and pedestrian facilities are integrated in the design of highway projects. Investments in bicycle and pedestrian facilities are part of the costs associated with the highway and bridge system. Bicycle and pedestrian facilities are incorporated in the transportation system when appropriate, particularly in instances that improve the ability to cross major roadways and provide a link for neighborhoods, schools, medical facilities, employment centers and shopping areas. In addition to dedicated bicycle and pedestrian facilities, additional benefits can be gained from educational, enforcement and encouragement programs supported or initiated by MoDOT.

## Funding Distribution

On January 10, 2003, the Missouri Highways and Transportation Commission adopted an objective method to distribute transportation funds using factors reflecting system size and usage and where people live and work. The distribution of funds has been the subject of debate for over a decade. The method for determining where and on what to spend limited transportation dollars has changed several times. Changes have been a result of both long-term project plans and political pressure centered around dividing funds between the urban and rural areas of the state. This method goes beyond the narrow discussions of geography and allows for allocation of funding based on objective, transportation-related factors that are representative indicators of physical system needs.

Another aspect of the funding distribution method was the determination of the correct balance of funding – in today's economic and political climate – between taking care of the existing system and adding new pieces to that system. Historically, Missouri has focused heavily on building and expanding the roadway system. This direction was necessary as the vast network of roads and bridges was under development. But Missouri has come to a point where this direction has taken a toll on the statewide system. The condition of roads and bridges reflects this past emphasis on expansion – taking better care of this system is long overdue.

The funding distribution method sets aside a fixed amount of funds to take care of the system (TCOS). Past methods have had similar set-asides, but the amount dedicated has not been enough to stop the decline of the transportation system. The method now allocates enough money to stabilize the system in the present condition and to also begin making some modest improvements. In addition to the TCOS category of funding, there are funds that can be used for major

projects and emerging needs. These projects are generally more focused on expansion work or may have to do with meeting needs unique to a specific region. There is also a flexible funding category, which allows for meeting additional TCOS needs or major projects and emerging needs.

**Funding Distribution Overview**

The following is a description of how funds are to be distributed using a projected MoDOT beginning funding total of $969 million. This estimate is based on three-year average funding projections for fiscal years 2006, 2007 and 2008. These are all funds available for transportation projects.

1 Deduct $119 million in suballocated funding designated for specific purposes by the U.S. Congress. In the past, these funds were not a part of the distribution method. MoDOT is not “re-allocating” these funds; they are simply included in the formula so that all transportation dollars are accounted for.

2 Deduct $18 million for other modes such as transit, aviation, railways and waterways. These funds require appropriation by the state legislature and cannot be used on roads and bridges. Funding amounts are based on the appropriated amounts for fiscal year 2003 and are subject to change annually depending on the legislature’s budget decisions.

3 Deduct $20 million for economic development and cost-sharing programs. These programs are a means to capture additional funds into the transportation system and boost economic growth in Missouri. This category is funded at $5 million higher than in past years. In the event this amount is not adequate to accommodate high-priority project requests, staff will ask the Missouri Highways and Transportation Commission to increase the amount in this funding category.

4 Deduct $75 million to fund debt service on the $900 million in bonding MoDOT committed to in fiscal years 2001, 2002 and 2003. This is a 20-year commitment and will increase if additional bonding is used. This leaves $737 million in remaining available construction funds. These funds are the primary focus of the funding distribution method.

5 Subtract a fixed amount of $400 million to take care of the system (TCOS). Allocating $400 million to take care of the system will stop system decline and start to show modest improvements in the system condition. This amount is further divided by deducting $100 million for interstates to be used on a statewide level to preserve interstate pavements and bridges and achieve a goal of 85-90 percent of the interstate system in good or better condition over the next 10 years. Another $25 million for safety is set aside to address location-specific safety needs. Safety is one of MoDOT's top priorities. Nearly every project built has a goal of improving safety, whether it is the primary goal or a secondary one. Potentially all of MoDOT's available funds each year have an impact on improving the safety of the transportation system. The remaining TCOS funds of $275 million are for the rehabilitation and reconstruction of the non-interstate National Highway System (NHS) and remaining arterials, with a goal of eventually having 50 to 55 percent of the pavement on those routes in good or better condition.

6 Subtract a fixed amount of $100 million in flexible funds. These funds can be used for either taking care of the system or major projects and emerging needs. Funds are distributed to districts according to total population, total employment and total traffic volume on the national highway system and remaining arterials.

7 Remaining funds are for major projects and emerging needs. These funds are estimated at $237 million. In this category, Transportation Management Areas (TMAs), which include Kansas City, St. Louis and Springfield, would receive their allocated funding based on the distribution factors of total population, total employment and total traffic volume on the national highway system and remaining arterials. The rest of the state would receive 50 percent of the remaining funds based on the same factors while the remainder would be for statewide rural major projects and would be allocated each year on a statewide basis. TMAs are not eligible for the statewide rural major projects funds.

MoDOT will revisit the funding distribution method in two years to adjust it as appropriate and will continue to review it periodically as directed by the Commission. If MoDOT receives more funding, the funding distribution method can be adjusted to accommodate it. The Commission would have to establish the fixed amounts of funds for taking care of the system and for flexible funds. Once these decisions are made, remaining funds would be used for major projects and emerging needs.

**Local Funding**

Currently no cities or counties in the region have passed transportation sales taxes, have local funded transportation development districts, or have locally funded transportation projects. In the past, Community Development Block Grant applications for city streets and drainage have been submitted by various eligible communities.

# CHAPTER 9

## Plan Implementation

The goal of the Green Hills Regional Transportation Plan is to provide a guideline for maintaining and growing an efficient and safe movement of goods, services and people from one place to another. This plan is not meant to be a step-by-step manual for transportation planning, nor is it intended to dictate to the Missouri Department of Transportation which needs are to be addressed within the region. This plan contains the needs that have been compiled by the local public officials in the area, the Transportation Advisory Committee and citizens within the counties of Caldwell, Carroll, Chariton, Daviess, Grundy, Harrison, Linn, Livingston, Mercer, Putnam, and Sullivan. The needs located within will only become recommendations to MoDOT for further research, study and possible inclusion in the Statewide Transportation Improvement Program (STIP). As current needs are met or as changes occur within the region, it is anticipated that the plan will need updates and modifications. It is recommended that the plan be reviewed annually for any changes.

Over the last five years, MoDOT in conjunction with its planning partners has been working to develop a transparent decision making process which will assist in the selection of projects that feed into the STIP. Several funding streams are used by MoDOT when classifying projects, including Safety, Taking Care of Our System, Major Projects and Emergency Needs, and Interstates and Major Bridge. Following is the list of needs generated in this plan, categorized by how they could fall into MoDOT's funding streams.

## Safety

The most important factor in any transportation system that carries people, services and goods is that it provides a safe environment and poses minimal risk

to life and property. The following needs could fall under this funding category being that they focus on improving a known hazardous area. The following identified needs are examples of projects that could fit into this category include the need identified by local residents to construct pedestrian walkway overpass between the YMCA and Simpson Park on Highway 65 in Chillicothe, and the need for a bike/pedestrian path along 190 to deal with the high volume pedestrian and bike traffic associated with the high school located there.

**Taking Care of Our System**

The majority of needs identified and prioritized by the Green Hills TAC will fall under the funding category of Taking Care of Our System. This category includes possible needs that will give motorists smoother roads and enhance or maintain the roadway. Examples of Identified needs that fall under this category include road and bridge resurfacing, and widening of shoulders, which are common needs throughout the region.

**Major Projects and Emerging Needs**

Major Projects and Emerging Needs include projects that area prioritized through the Statewide Planning Framework Process. These projects may include bridge replacements, economic development projects, or other project that will allow for future development within an area. The greatest examples of needs identified by the Green Hills TAC that may fall under this funding category both involve highway cooridores.

The push for Highway 65 to be expanded to four lanes along its entire length has grown from what was originally a call for increased maintenance. If this project took place, it would have effects both on safety and economic issues vital to the region. Already a highly trafficked rout, highway 65 corridor traverses

areas containing some of Missouri's best cropland and a number of bio-fuel operations are situated along it ; bio fuel operations that will generate thousands of jobs and lead to an increase in heavy truck traffic . There are many steep hills and sharp curves, the shoulders are narrow or even in some cases nonexistent, and passing zones are few and far between. Without the expansion to four lanes, it will only become more dangerous for travelers on a stretch of highway that has seen over three hundred crashes in the last five years, resulting in 29 disabling injuries and four fatalities.

Another major project need involves the Missouri Highway 13 corridor, which like Highway 65 is seen as a north/south passage of state-wide importance. Despite the fact it's deficient in safety standards, it presently carries a significant volume of traffic. Projects currently underway will resurface sections of the Highway and install rumble strips, and the roadway will be upgraded to four lanes between Richmond and Lexington Missouri. The Green Hills TAC has noted heavy local support for continuing these improvements on into the northern counties.

**Interstates and Major Bridges**

The Green Hills TAC has identified no needs that fall under the category of Interstates and Major Bridges at this time.

**Local Transportation Management Tools**

Transportation management in Green Hills Missouri is limited. The largest city in the region has a population of less than 11,000. As such, transportation management in the predominantly rural area is not a pertinent need. The Cities of Chillicothe and Trenton does implement their own transportation management tools, as do a handful of smaller cities. The Green Hills Regional Planning Commission and the Green Hills TAC do not foresee recommending cities implement transportation management tools in the next five to ten years.

## Adoption of the Green Hills Regional Transportation Plan

The Green Hills Regional TAC is directly involved in all decision making processes regarding the regional transportation plan. The group makes formal decisions based on the best interest of the entire region.