SECTION 1
BACKGROUND AND INTRODUCTION

1.1 PURPOSE OF STUDY/INTRODUCTION

A Metropolitan Transportation Plan (MTP) is a document that serves as a guide to a region regarding that region's transportation infrastructure. It presents an evaluation of the current system and that system's future needs to better accommodate the expected changes in demand for transportation services. Although the plan provides an extended outlook – at least 20 years from the present – the plan is also meant to offer strategies and actions that can be implemented in the short-term to begin to address issues as identified and as they arise. The MTP is developed alongside the Transportation Improvement Plan (TIP) and incorporates the funding information provided in the TIP.

The Metropolitan planning area including jurisdictional boundaries is shown on ***Figure 1.1***.

1.3 THE METROPOLITAN TRANSPORTATION PLANNING PROCESS

The development of the 2036 JATSO Metropolitan Transportation Plan was a joint undertaking of transportation stakeholders in the area, the general public, technical consultants, and community leaders within the JATSO Metropolitan planning area.

1.3.1 PUBLIC INVOLVEMENT

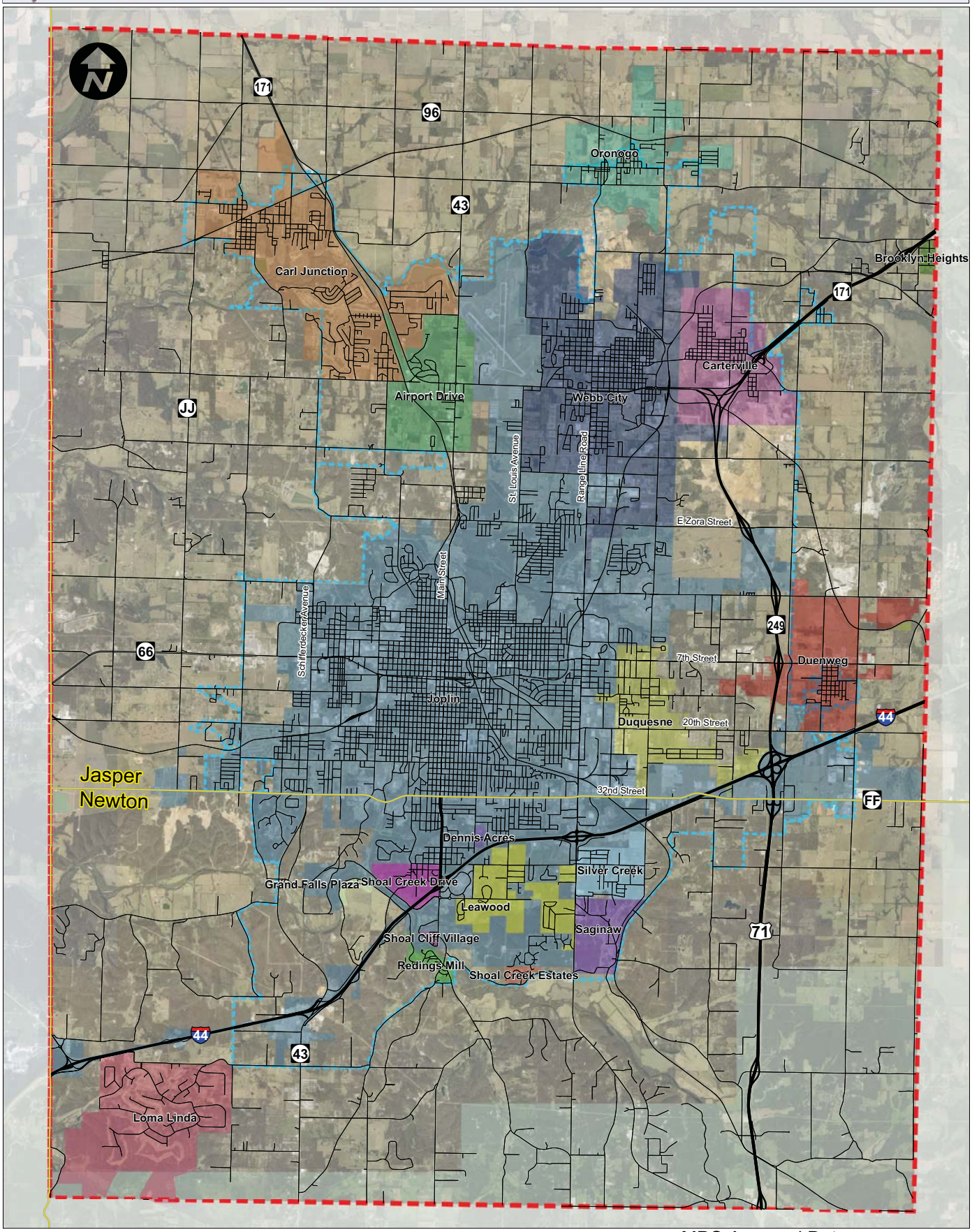
A series of public meetings were held that were advertised through public announcements, utilization of websites, and personal invitations to identified parties. Six of the meetings had a focus topic for specific groups of community stakeholders; however, anyone was welcome to participate in open discussion at each meeting. The six stakeholder input meetings were grouped as follows: emergency responders and social service agencies; educational institutions; transit providers and bicycle interest groups; freight haulers; commercial/employment/TIF districts; and municipal leaders, staff and representatives. After these focused meetings, an open public meeting was held to gather input in a more relaxed open house format.

1.3.2 REVIEW OF EXISTING DOCUMENTATION

A Metropolitan Transportation Plan, much like other planning documents, does not exist in isolation. It incorporates and builds upon the concepts and recommendations from ongoing and previous planning efforts and documentation. With help from JATSO policy board members and staff, a consultant team reviewed and assessed existing plans and studies in order to better understand the context in which this LRTP exists. CJW Transportation Consultants performed a review of the existing documents.

Joplin Area Transportation Study Organization

Long Range Transportation Plan



MPO Approval Date: Nov 12, 2009

September 2015

CJW

Metropolitan Planning Area

JATSO Boundary

Urbanized Area

Figure 1.1

1.4 PLANNING FACTORS

1.4.1 DEMOGRAPHIC TRENDS

In 2011, an F5 tornado touched down on the western side of Joplin and moved east through the city. It is estimated that the tornado destroyed approximately 7,500 residential dwellings, 5,000 businesses and 9,000 vehicles. 5,000 employees were impacted, 9,000 people were displaced and 17,000 people were affected. The tornado created approximately 3 million cubic yards of residential debris. In general, numerous government resources were lost including vehicles, parks, trolley shelters, lights, signs, communication antennas, traffic signals and a senior citizen center.

As can be seen from ***Table 1.1***, the Joplin MSA has experienced an estimated 0.4% growth between the years 2010 and 2014.

Table 1.1: Joplin Area Estimated Change in Population

Jurisdictional Area*	2010 Census Population	2014 Estimate Population	Net Change in Population	% Change in Population
Joplin MSA	**175,518**	**176,141**	**+623**	**+0.4%**
Jasper County (entire county)	117,404	117,543	139	0.1%
Newton County (entire county)	58,114	58,598	484	0.8%
City of Joplin	50,777	51,789	1,012	0.02%
City of Webb City	10,996	10,989	-7	-0.1%
City of Carl Junction	7,445	7,551	106	1.4%
other MPO municipalities	10,450	10,417	-33	-0.3%
Carthage (non-MPO community)	14,378	14,232	-146	-1.0%
Neosho (non-MPO community)	11,835	12,157	322	2.7%

* Population represents total population within jurisdictional boundaries regardless of JATSO boundary overlap.
Source: U.S. Census Bureau and Joplin Area Chamber of Commerce

1.4.2 ENVIRONMENTAL ISSUES

There are several issues that arise when trying to accommodate the transportation needs of a growing and changing population. While trying to fulfill the society's desire to move goods and people, transportation planners must weigh the other effects that result from the existing and proposed transportation network. Poorly planned transportation networks can result in adverse effects to various elements of the environment, both natural and manmade, and even human populations themselves.

Environmental features must be identified. After they are analyzed, there are some safeguards in place that allow for the mitigation of adverse effects due to the transportation network. Some of the processes are described below:

Water Quality: Stormwater management guidelines and the employment of best management practices have been implemented to both improve water quality and protect against flooding downstream of transportation and construction projects.

Floodplain Management: Through stormwater management guidelines and flood zoning overlays, floodplain management is regulated and flooding due to increased impervious are is mitigated.

Steep Slopes: Steep slopes are regulated through the City of Joplin's engineering specifications and through the 2012 International Building Code. The preservation of slopes is important to prevent erosion and degradation of water quality, loss of topsoil, changes in natural topography and drainage patterns, and further fragmentation of forest and habitat areas.

Historic Structures: The State Historic Preservation Office within the Missouri Department of Natural Resources protects historic sites and structures by requiring the approval of a Section 106 form prior to the construction of a federally or state funded transportation project. The City of Joplin and Webb City have adopted local ordinances to protect designated historic structures.

1.5 PLAN ELEMENTS

1.5.1 MAJOR TRANSPORTATION ISSUES

As a changing community, the Joplin metropolitan area faces many transportation challenges. Through the planning process, many concerns, desires, ideas, and issues were brought forth for consideration. The following represents a synthesis of the major transportation issues determined through this study:

- Accessibility to metropolitan employment centers, commercial areas, recreational areas, and other amenities.
- Maintaining mobility along Range Line Road, I-44, Route 171 and other important regional corridors.
- Enhancing transit options by continuing to improve the existing transit and paratransit systems.
- Ensuring safe and convenient pedestrian connections throughout the metropolitan area.
- Providing enhanced sidewalk connectivity.
- Balancing land use, transportation, and environmental objectives.
- Considering maintenance implications of future improvements.

1.5.2 FHWA NATIONAL GOALS FOR THE TRANSPORTATION SYSTEM

In association with the "Moving Ahead for Progress in the 21st Century Act" (MAP-21), signed into law in 2012, the Federal Highway Administration requires that MPOs track quantifiable elements within their planning regions in order to not only document performance based measures, but also to help in the prioritization process to plan for future improvements; a set of JATSO performance measures are further identified later in this document.

1.5.3 JATSO GOALS AND OBJECTIVES

The goals and objectives are intended to reflect local and regional values outlined in previous and ongoing planning efforts as well as the dialogue resulting from the LRTP process. In addition, goals and objectives provide an objective basis to measure the effectiveness of LRTP recommendations over time. These goals and objectives were developed as part of public outreach process. They were reviewed and updated with JATSO input. These goals are separate from the seven (7) goals outlined by the FHWA, but each planning organization must develop goals for their agencies and their specific areas.

Goal I: Provide for the development of a transportation system that is supported by and complements land development and enhances community development.
Goal II: Provide for the development and maintenance of an efficient and safer transportation system for the movement of people and goods.
Goal III: Be aware of and able to adapt to technological and federal transportation policy changes.
Goal IV: Provide for a balanced transportation system that provides a choice of travel modes for different individuals and activities.
Goal V: Develop transportation improvement projects consistent with budget restraints.
Goal VI: Provide a transportation system that enhances the economic vitality in the Joplin metropolitan planning area.
Goal VII: Provide a transportation system that addresses the needs of persons without access to automobiles, including persons of low income or persons with disabilities.
Goal VIII: Maintain low environmental impact from the transportation system within the Joplin metropolitan planning area.
Goal IX: Develop a future transportation system that encourages energy conservation.

SECTION 2
EXISTING CONDITIONS ASSESSMENT

There are several modes of transportation that are represented in the Joplin area. An assessment of existing conditions is necessary to establish a starting point upon which assumptions can be built. One of the single largest investments in a community is its transportation infrastructure, and the Joplin area is no different. This assessment begins the process of knowing where and what assets in which to continue to invest. Key assets of the transportation network are not limited to roadways and bridges, but also include the public transit system, bicycle and pedestrian system, aviation system, and freight infrastructure.

2.1.2 DAILY TRAFFIC COUNTS AND LEVEL OF SERVICE

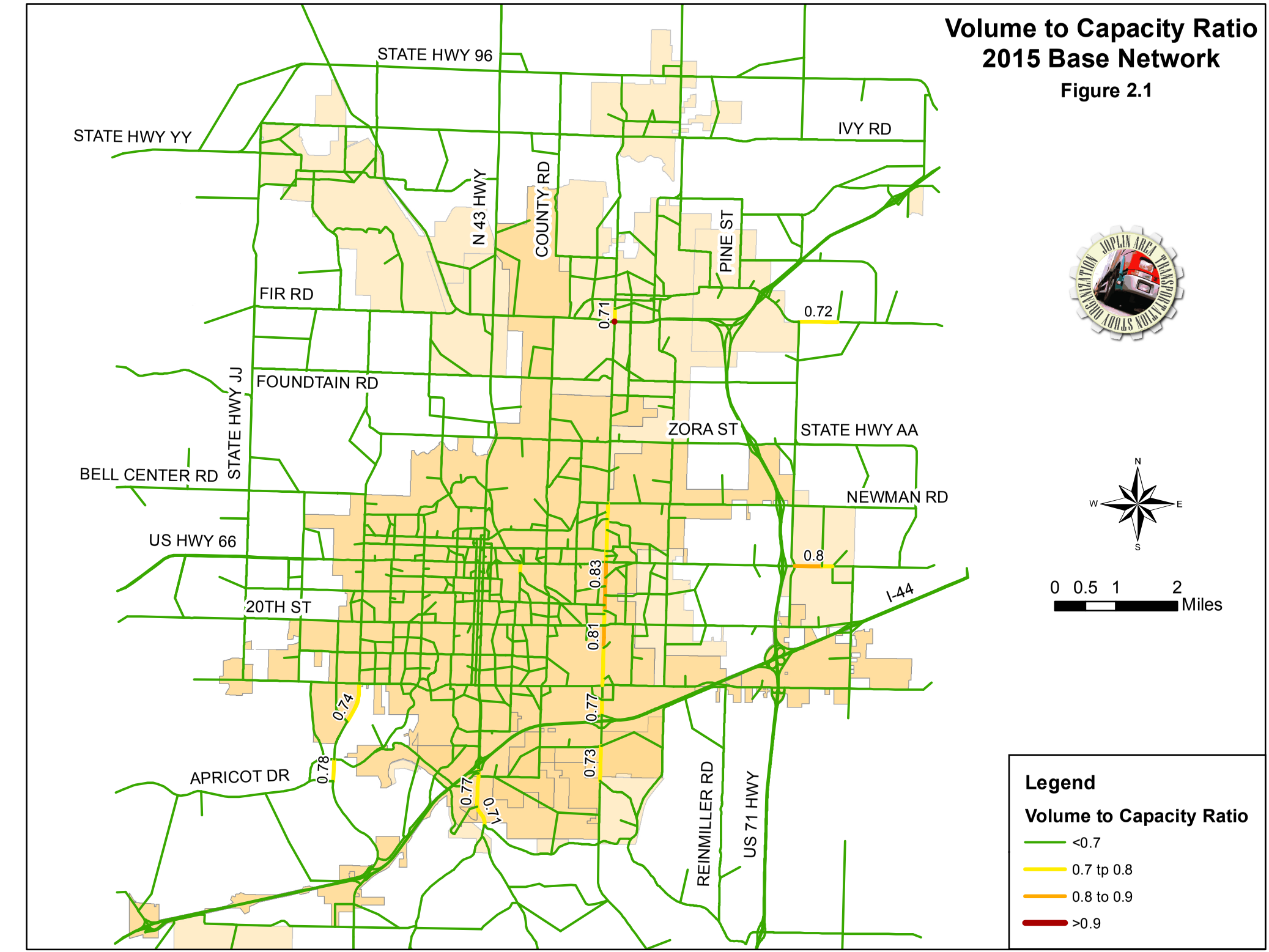
Roadway capacities and levels of service vary as changes in land uses and travel demand are made. To evaluate the operation of roadways in the Metropolitan planning area, two measures are provided: the annual average daily traffic (AADT) volume and level of service (LOS). ***Figure 2.1*** illustrates the estimated roadway LOS for all links in the 2015 Base model.

2.1.3 BRIDGE/OVERPASS CONDITIONS

Based upon each condition rating, 28 of the 108 state bridges are in the "Poor" to "Fair" conditions. There are no bridges rated as "Very Poor" at this time. Only six bridges are rated as "Poor".

The data provided also indicated that there are 18 bridges built/rebuilt on or before 1965. Based upon the assumption that the average bridge has a 50-year lifespan, these bridges have exceeded their expected service life. Also, twenty-four *other* bridges will be 50 years old or more by the year 2036.

Volume to Capacity Ratio
2015 Base Network
Figure 2.1



2.1.4 HIGH CRASH LOCATIONS

Range Line Road and 7th Street are the two corridors that had several intersections on this longer list. Outside of the City of Joplin, the trend on Range Line Road continues. High crash density continues along the Madison/Range Line corridor into Webb City. Also, Route 171 generally experiences high crash density north of Joplin. This is especially evident at major intersections such as the intersection of Route 171 and Madison in Webb City. The new roundabout at Route 171 and MO 43 in Airport Drive has experienced an increase in crashes, but a reduction in the severity of crashes compared to before it was constructed. Highly travelled corridors such as Range Line Road and Main Street still experience a high number of crashes each year.

2.2 TRANSIT SYSTEM

2.2.1 PUBLIC TRANSIT OPERATIONS

The Metro Area PublicTransit System (MAPS) began as a demand response transit system operated by the City of Joplin in 1997. MAPS provided 58,630 rides to the Joplin area in that first year. In 2007, a deviated fixed route service, called the Sunshine Lamp Trolley, was added. The Sunshine Lamp Trolley service routes and the corresponding deviated service area comprise an area that is more compact than the primary MAPS service area, focusing on the more dense population and employment centers in the City of Joplin. ***Figure 2.2*** shows the total ridership over the past ten years including the separate components of scheduled MAPS ridership and Trolley ridership.

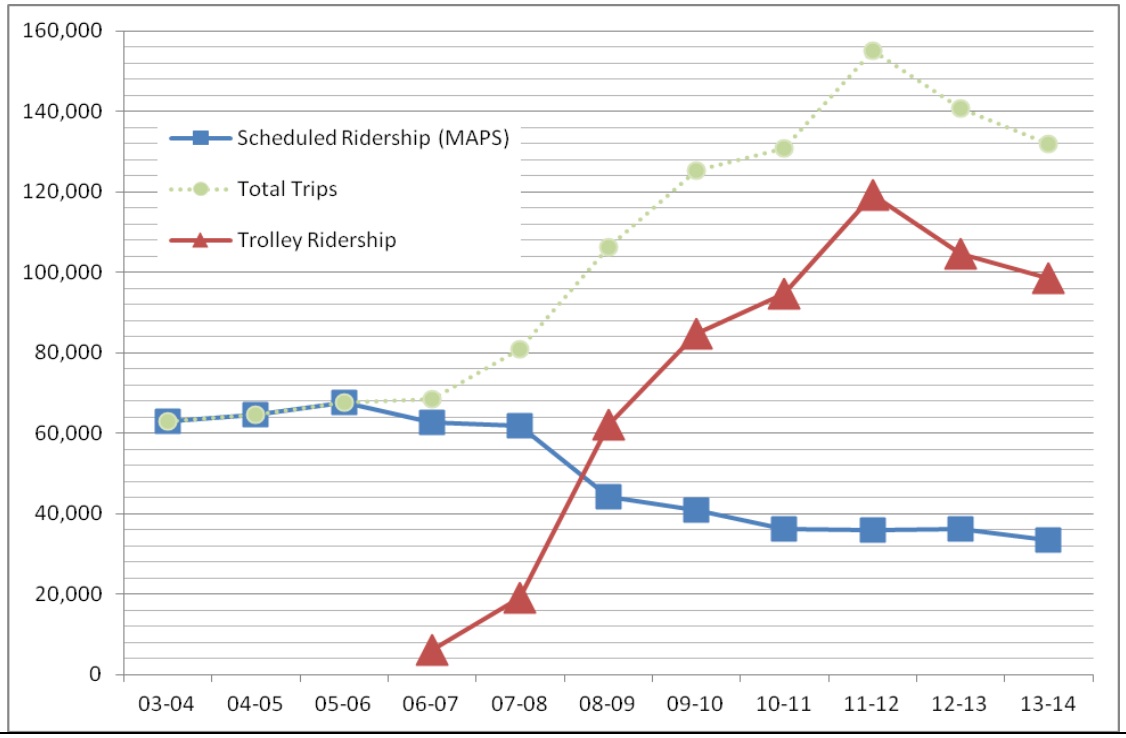


Figure 2.2: Public Transit Ridership Trends over the Past Ten Years

Source: Metro Area Public Transit System, City of Joplin

The MAPS scheduled ridership showed steady growth until the inception of the Sunshine Lamp Trolley. However, this is not a negative point; it may merely indicate the effectiveness of the trolley route system that has been put in place. So far, the trolley service seems to provide a balanced route system that serves both the disabled public and the general public.

2.2.3 Public Transit Facilities

MAPS regularly utilizes federal Section 5307 funds to upgrade and replace vehicles and systems as needed. The typical service life for the current transit fleet is five (5) years and can vary depending on several factors. According to recent data, there are seven (7) vehicles that are past their expected useful life. According to the JATSO 2014-2017 TIP, MAPS receives $4,761 from MoDOT annually for transit operations. There are two (2) ongoing transit projects that utilize Section 5307 funds and will include the replacement of existing trolleys and vans, and provide annual operational expenses of the MAPS.

In addition, JATSO has three (3) Section 5310 applications, one of which will provide a new transit van for Preferred Family Healthcare (formerly Alternative Opportunities), an organization that provides services in the areas of developmental disabilities, mental health, substance abuse, employment services and foster care. The 5310 applications will also provide two (2) new transit vans for the Ozark Center, and one (1) new transit van for Cerebral Palsy of Tri-County Missouri.

2.3 Non-Motorized Circulation

2.3.1 Past Plans and Studies

The JATSO area has a long tradition of effectively planning for the long term in regards to its non-motorized transportation/circulation needs at the state, metropolitan, and local levels. To ensure consistency between these past efforts and the most recent JATSO Long Range Transportation Plan, the available plans were reviewed and a summary of their key recommendations are provided below.

Bicycle and Pedestrian Transportation Plan (Phases 1 & 2):
Missouri Statewide Bicycle Route Map
Carl Junction Transportation Plan
Carl Junction Comprehensive Plan
City of Joplin – Citizens Park Master Plan
City of Joplin Comprehensive Plan
Harry S Truman Coordinating Council Regional Transportation Plan
Harry S Truman Coordinating Council – Public Transit-Human Services Transportation Coordination Plan
Webb City Comprehensive Plan 2015 Draft
Municipal Stakeholder Comprehensive Plans

2.3.2 Existing Non-Motorized Circulation Facilities

The Joplin metropolitan area has made significant efforts to expand the availability of non-motorized circulation facilities each year. These improvements have typically been implemented concurrently with planned roadway enhancement and reconstruction projects.

As of 2015, designated on-road/shared facilities exist in six separate locations within the City of Joplin. These routes run a combined total of approximately 7 miles, including:

- Along 2nd Avenue/Broadway Street from Main Street on the west to School Avenue on the east, south to Jasper Street, and east to High Avenue terminating at Joe Becker memorial Stadium Park. (1 mile)
- Along 5th Street from Main Street on the west to Kentucky Avenue on the east, north to 4th Street, and east to Murphy Boulevard terminating at Landreth Park. ($^1/_2$ mile)
- Along Schifferdecker Avenue from 32nd to 20th Street. (1 mile)
- Along Connecticut Avenue between 32nd Street and 15th Street. ($1^1/_3$ mile)
- Along Zora Street between Missouri Avenue and the Frisco Greenway Trail. (1 mile)
- Along Murphy Boulevard from 4th Street to 20th Street and along 20th Street from Murphy Boulevard to Range Line Road. ($2^1/_4$ mile)

While the extent of existing on-road/shared facilities is limited, it should be noted that all public streets are legally available for bicyclists who must adhere to the same rules of the road as all other motorists.

Since 2010, the extent of off-road facilities and "rails to trails" has grown within the JATSO boundaries. There are three key off-road facilities, the Frisco Greenway Trail, Ruby Jack Trail, and Thom Station which are connected to and supported by a growing network of park trail facilities including but not limited to King Jack Park Trail, Murphy Park Trail and others.

2.4 AVIATION

The latest update to the *Joplin Regional Airport Master Plan* was in 2015, and JATSO's metropolitan transportation planning process retains the recommendations that the airport plan put forth and summarizes subsequent implementations of those recommendations.

The Joplin Regional Airport, owned and operated by the city of Joplin, serves the commercial, military, cargo, general aviation and corporate aviation demands for much of southwestern Missouri. The airport is located directly to the north of Route 171 and east of Route 43. The management of the airport falls within the City of Joplin's Public Works Department. An Airport Manager is responsible for the oversight of the daily operations. An Airport Advisory Board, consisting of seven members appointed by the Joplin City Council, is in place to provide guidance and direction to the Airport Manager. Other airport staff consists of one airfield operations manager, four operations shift personnel, one seasonal assistant and one part-time clerk. Airport staff is cross-trained to perform operations and maintenance duties.

2.4.3 COMMERCIAL FLIGHT OPERATIONS

The airport is served by one passenger airline, American Eagle Airlines, which provides federally-subsidized carrier commercial passenger service between Joplin Regional Airport and Dallas/Fort Worth Airport. They offer two (2) daily flights departing from Joplin and two flights departing from Dallas/Fort Worth seven days a week. The operational contract with American Eagle Airline does not currently have an expiration.

Commercial air service in Joplin has been intermittent since the deregulation of the airline industry. The inconsistency of air service, combined with the residual effects of the 9/11 terrorist attacks, proximity to larger airports, rising fuel costs, and other economic factors, has led to a decline of enplanements since a peak of over 40,000 annual enplanements in the 1990s. The last fifteen years have seen a number of commercial carriers try to maintain a presence in the Joplin market despite the downward trend. According to the Federal Aviation Association, the Joplin Regional Airport produced 3,776 enplanements in 2009. However, the airport produced 23,329 enplanements in 2013. Thus, in only four years, the enplanements for the airport have risen approximately 518%.

2.5 FREIGHT

Across the United States and the world, goods (freight) are moved using many modes of transportation. These modes can be grouped into four categories: boat, plane, train and truck. As the Joplin region is not connected by navigable waters, freight is not moved by boat. None of the major product air shipping companies, such as UPS and Fed-Ex, operate out of the Joplin Regional Airport limiting the amount of air cargo within the region. Rail and trucking are the two major sources of regional freight transportation.

2.5.1 RAIL

The Joplin area moves freight by rail through service of three railroads:

- Kansas City Southern (KCS)
- Burlington Northern Santa Fe (BNSF)
- Missouri Northern Arkansas (MNA)

KCS and BNSF are Class I railroads, meaning they have annual gross revenues of more than $250 million. MNA is a Class II railroad, which means it has annual gross revenues of at least $20 million but no more than $250 million. KCS runs north-south in direction and connects Kansas City and Dallas. BNSF connects regions throughout the country including Chicago, Texas, California and the Pacific Northwest. MNA is primarily a regional railroad that connects to local areas throughout Southwestern Missouri and Northern Arkansas.

2.5.2 TRUCKING

According to the Joplin Area Chamber of Commerce, the Joplin region experiences significant trucking activity and is home to 181 trucking companies. In total, it is estimated the Joplin trucking companies gross over ½ billion dollars annually and employ over 5000 people, locally. Con-Way Truckload Inc., Tri-State Motor Transit Co., Active Transportation Co LLC, Bed Rock Inc, Tri-State Motor Transit Co., D & D Sexton Inc., and Transport Distribution Company TDC are the area's largest trucking companies.

2.5.3 INDUSTRIAL PARKS

There are several major industrial areas in the Joplin metro area:

- Crossroads Center Business Park
- Joplin Airpark & Industrial Park
- Joplin Southern Industrial Park

- Joplin Webb City Industrial Park
- Joplin Western Industrial Park
- Cedar Grove Industrial Park

2.6 PERFORMANCE BASED MEASURES

2.6.1 SUMMARY OF EXISTING MEASURES OF PERFORMANCE

JATSO is aligning to the MAP-21 standards by tracking the performance of its transportation system with different criteria. The elements that have been reviewed are crash rates, pavement conditions and ozone levels.

2.6.2 CRASH RATE

Crash rates are often utilized when evaluating crash statistics in a given area. This is often accomplished by determining the total vehicle miles traveled (VMT) and then comparing the number of crashes that occur compared to the total VMT.

A summary of the last 5 years of crash data is shown in **Table 2.1**. A lower value is better.

Table 2.1: Crash Rates within the JATSO Metropolitan planning area

Year	VMT	Total Disabling Injury & Fatality Crashes	Disabling Injury & Fatality Crashes Per MVMT
2010	3,069,210**	83	27.04
2011	3,127,331*	76	24.30
2012	3,185,451*	80	25.11
2013	3,243,572*	49	15.11
2014	3,301,692	64	19.38

*Assumed value, assigned based on differential increase from 2010 to 2014.
**From JATSO 2030 Long Range Transportation Plan.
Million Vehicle Miles Traveled = MVMT

JATSO's goal

Set the goal to continue the downward trend of crashes in the JATSO metropolitan planning area.

2.6.3 PAVEMENT CONDITIONS

The condition of the pavement in the JATSO area is tracked by MoDOT. They provided pavement condition data for the years between 2010 and 2014 on all state roadways within JATSO's metropolitan planning area. The pavement on these roadways has been ranked in "good" or "not good" condition.

Pavement conditions are described in **Table 2.2** below. A higher value is better.

Table 2.2: Percentage of JATSO Pavement in Good Condition

Year	% of Pavement in Good Condition
2010	85
2011	84
2012	85
2013	87
2014	89

JATSO's goal

JATSO will work to maintain pavement in good condition as budgetary constraints allow.

2.6.4 Ozone Levels

Ozone is measured based on a three year design value that is determined based on the fourth highest Ozone value measured within those three years. The Ozone Design value is reported by the AQS sites on a two year basis.

The current Ozone Design Values are shown in **Table 2.3**. A lower value is better.

Table 2.3: JATSO Area Ozone Design Values

Years	Ozone Design Value
2009-2011	0.075
2010-2012	0.078
2011-2013	0.077
2012-2014	0.072

JATSO's goal

Set the goal that the regional plans, programs and projects conform to established National Ambient Air Quality Standards.

The purpose of tracking these elements is to not only provide a goal that agencies aim for in their planning processes, but to also provide a model that can be measured in the future to help track successfully reached goals and also track those areas where performance needs to be improved. These measures will help guide area agencies in future planning and should be considered when new projects are proposed for the JATSO area.

SECTION 3
2036 MODAL RECOMMENDATIONS

3.1 2036 TRAVEL DEMAND MODEL

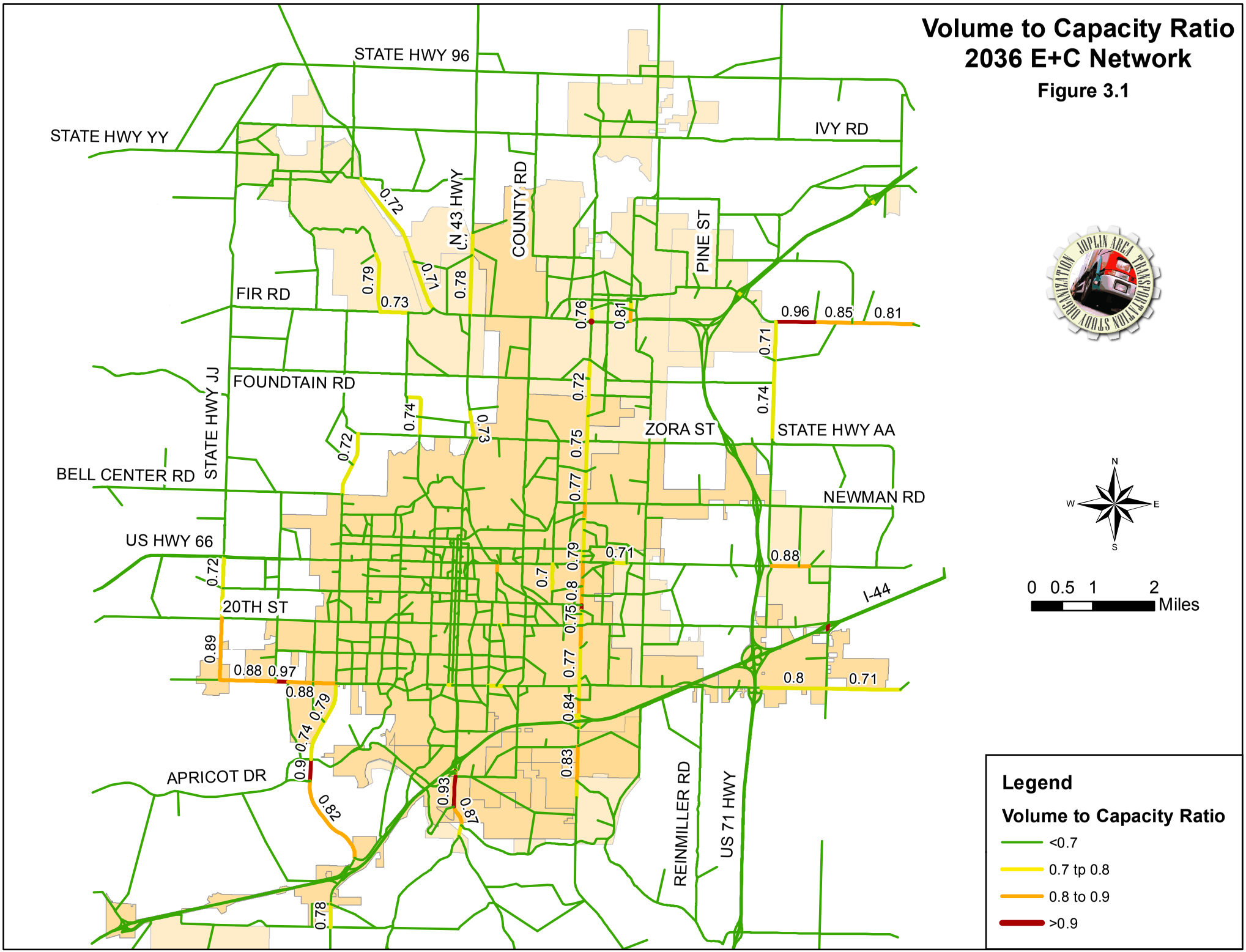
JATSO staff provided a travel demand model that was used to forecast travel demand for various scenarios for the year 2036. In long range planning studies, travel demand models are used to determine future travel volumes on the roadway system given anticipated growth. Existing traffic conditions were determined by comparing the most recent available traffic counts with street and highway capacity. After the existing conditions are assessed, a common practice in assessing future transportation conditions is to examine what transportation problems could be expected if no additional improvements to the roadway system were made beyond what is currently funded or currently under construction. This is called an existing plus committed network (E + C).

The locations where traffic volumes would approach or exceed capacity for a Year 2036 E+C network were identified as:

- Range Line Road – Many sections of Range Line Road are projected to approach capacity in the year 2036.
- Schifferdecker Avenue south of 32nd Street (Coyote Drive) is expected to experience increased volume and is anticipated to near capacity over the next 20 years.
- State Highway HH is expected to undergo enough growth to reach over 80% of its capacity.
- 32nd Street is expected to near its capacity in certain segments.
- Analysis indicated that with expected increased growth along various segments of Main Street, roadway capacity would rise above 80% utilization and would near its full capacity in specific areas.

The locations where traffic volumes would approach or exceed capacity for a Year 2036 E+C network is shown in ***Figure 3.1***.

Volume to Capacity Ratio
2036 E+C Network
Figure 3.1



3.2 ROADWAY RECOMMENDATIONS

3.2.1 ROADWAY CONSTRUCTION

A number of roadway needs and projects were identified through analysis of the forecasted future traffic, stakeholder interviews, and public input. Some of the projects identified that involve adding through lane capacity include:

- Construction of a new West Corridor near/along Central City Road connecting Route 171 to I-44 to reduce through traffic and truck traffic on city routes.
- Widening of Route 171 from Fir Drive to the west past Carl Junction.
- Widening of Zora Street to five lanes from MO 249 to Proposed West Corridor
- Widening of the Duquesne/Hall corridor from 32nd Street north through Webb City.
- Widening of 32nd Street from Schifferdecker Avenue to Central City Road to include five lanes.
- Widening of Black Cat Road from Route 66 (7th Street) to 32nd Street to include a center two-way left-turn lane.
- Widening St. Louis Ave. from Zora St. to Route 171 to include a center two-way left-turn lane.

Of the roadway improvement projects given consideration, fourteen (14) projects were evaluated in the 2036 E+C travel demand model to compare the effects of each on the regional roadway network. ***Table 3.1*** summarizes the output from separate model runs with each project added to the network by itself. Model data used for comparison includes the change in vehicle miles traveled and vehicle hours traveled, which is a measure of delay.

Table 3.1: Travel Demand Model Output: Summary of Project Comparison

2036 Alternative	Vehicle Miles Traveled (VMT)	Vehicle Hours Traveled (VMT)	Daily Δ Delay (Hours)	Daily Δ Miles
E+C	3301692	225+95	0	0
101a	3300431	114031	-1261.49	-653
101b	3301720	114571	-39.51	-113
102b	3301789	114647	96.96	-37
102c	3301694	114683	1.70	-2
104	3301720	114669	27.51	-15
105a	3301955	114635	262.52	-49
106b	3301681	114679	-11.49	-5
106c	3301652	114659	-40.71	-25
107	3301742	114676	49.51	-8
134a	3301742	114681	45.51	-3
144	3301690	114683	-2.49	-1
145	3301640	114511	-52.97	-173
146	3301651	114679	-41.49	-5
147	3301733	114677	40.47	-7

3.3 TRANSIT SYSTEM

The existing transit system in the Joplin area has been successful in providing travel options for both the disadvantaged public and commuters in general. Recommendations for improved transit include the following:

Vehicle Operations, Replacement, and Maintenance
Expansion of Service Hours
Turnout Improvements to Trolley Stops
Expansion of Service Areas

3.4 NON-MOTORIZED CIRCULATION

Based upon JATSO's goals, recommendations collected from stakeholder interviews and review of the various municipal plans/programs, a series of non-motorized (pedestrian/bicycle) opportunities have been identified. The opportunities are divided into on-road and off-road classifications.

3.4.1 ON-ROAD FACILITY OPPORTUNITIES

It is suggested that several opportunities be pursued to improve on & off-road facilities in the JATSO area. These include:

- Evaluating the potential to include pedestrian sidewalks in conjunction with the various planned/proposed roadway and intersection improvements.
- Considering sidewalk enhancement and/or installation at/near existing and proposed education institutions.
- Considering installation of bicycle/pedestrian actuation and signal at the intersection of 13th Street and Madison Street in Webb City.
- Where currently missing, installing sidewalks along commercial corridors.
- Evaluating the potential to, where feasible, encourage the installation of shared bicycle facilities in conjunction with planned/proposed roadway improvements.
- Considering additional shared road lanes along Main Street and Joplin Avenue between A Street and 7th Avenue.
- Considering linking the designated State bicycle connector routes south of Redings Mill along Highway NN and Highway C via a shared road routes along Redings Mill Road/Main Street. Connection to the off-road bike route in Spiva Park should also be considered.

3.4.2 OFF-ROAD FACILITY OPPORTUNITIES

- Coordinating with the Missouri Department of Transportation (MoDOT) to enhance regional bicycle connections by linking the Ruby Jack Trail to the designated State bikeway connector route along Route 43.
- Assisting Carl Junction where feasible in the continued extension and enhancement of the Thom Station Trail further south toward Joplin.
- Continuing enhancement of the Ruby Jack Trail through the installation of firmly packed gravel riding/hiking material.

- Establishing connections between the trails in McClelland Park, McIndoe Park, and Shoal Creek.
- Considering the inclusion of trail facilities as part of future roadway improvements to Hall Street between 17th Street and Hawthorne Road.
- Considering the inclusion of trail facilities as part of future roadway improvements to Fir Road between Peace Church Avenue and MO 171.
- Considering the inclusion of trail facilities as part of future roadway improvements to 17th Street between Oronogo Street and Range Line Road.
- Enhancing signage at trail/roadway crossing areas.
- Continuing to encourage land donations where geographically appropriate.
- Extending of Frisco Trail to Ruby Jack and extension of Thom Station to Downtown Joplin.
- Updating of the Joplin Bicycle and Pedestrian Transportation Master Plan.

3.6 FREIGHT

The regional freight hauling community has provided input into this plan directly through the stakeholder public input process.

- Improving Duquesne Road, Zora Street, Schifferdecker Avenue and 20th Street were identified as key routes to improve the efficiency of moving freight.
- Duquesne from 7th to 17th Street is recommended for widening from 2 to 4 lanes.
- Zora is recommended to be widened to five lanes from Range Line to MO 249 and to 3 lanes from the future West Corridor to Main (3 lane widening along Zora from Range Line Road to MO 249 is currently under design)
- Schifferdecker is recommended to be widened from MO 66 to Zora.
- Grade separation with the Kansas City Southern (KCS) RR on 20th Street.

SECTION 4
FINANCIAL PLAN

The financial plan addresses existing and potential funding resources available for implementation of the transportation plan. The needs and projects identified in a Metropolitan Transportation Plan should not be viewed as an unfunded wish list. The recommendations provided should be encompassed in a feasible, financially-constrained plan that can realistically be implemented over the next 20 years.

4.1 FUNDING SOURCES

4.1.1 FEDERAL HIGHWAY PROGRAMS

There are several funding programs available through the Federal Highway Administration (FHWA) that could be applicable for funding projects in the Joplin area. These programs include the following:

- **National Highway Performance Program (NHPP)**
- **Surface Transportation Program (STP)**
- **STP-Safety Program (STP-S)**
- **STP-Small Urban Program (STP-U)**
- **Rail-Highway Grade Crossing Program (STP-RR)**

- **Transportation Alternatives Program (TAP)**
- **Highway Safety Improvement Program (HSIP)**
- **Highway Bridge Program (HBP)**

4.1.2 *Federal Transit Programs*

There are several funding programs available through the Federal Transit Administration that could be applicable for funding projects in the Joplin area. These programs include the following:

- **Section 5303-05 Program** provides funding for the planning of transit projects.
- **Section 5307 Program** provides funds to urban areas for transit capital and operating expenses.
- **Section 5339 Program** provides funds and discretionary grants for fixed guideway capital improvements. It also provides capital assistance for new and replacement buses and related equipment and facilities.
- **Section 5310 Program** provides capital funding for transportation programs serving elderly and disabled customers.
- **Section 5311 Program** provides capital and operating funds to rural public transportation programs. These funds cannot be used in urban areas.

4.1.3 *Missouri Department of Transportation Programs*

There are several funding programs available through the Missouri Department of Transportation (MoDOT) that could be applicable for funding projects in the Joplin area. These programs include the following:

- **State Road Fund**
- **State Road Bonds**
- **Other State and Federal Funds:** MoDOT also administers funds from a variety of state and
- federal sources for other modal activities.

  The remaining funding for other modes comes from state sources, which include the Aviation Trust Fund, General Fund appropriations, and allocation of motor fuel and vehicle user fees.

4.1.4 *Local Funding Programs*

Local funding for transportation improvements in the Joplin metropolitan area comes primarily from sales taxes. The City of Joplin currently has two transportation sales taxes for funding improvements to the transportation system. Joplin has a 1/2 cent transportation tax that generates approximately $6.4 million annually. The Transportation Sales Tax is a permanent sales tax with no sunset clause.

- In addition, Joplin passed a 3/8-cent sales tax for capital improvements for street projects in 2014. It is estimated that this tax will generate approximately $3.1 million annually.
- The City of Carl Junction currently has a 1/2 cent transportation sales tax and a ½ cent Capital Improvement Plan Sales Tax.
- The City of Webb City also has a 1/2 cent transportation sales tax program that generates approximately $560,000 and a 3/8-cent capital improvements sales tax that generates approximately $750,000 annually.

4.1.5 Other Funding Programs

In addition to municipal sales tax programs, other means of financing transportation improvements are available through the following programs.

- **Community Improvement Districts (CID)**
- **Transportation Development District (TDD)**
- **Community Development Block Grant (CDBG)**
- **Transportation Corporations**

4.1.6 Total Projected Funding 2016-2036

On December 4th, 2015, the Fixing America's Surface Transportation Act (FAST ACT) was signed into law. The FAST ACT authorizes $305 billion over fiscal years 2016 through 2020.

Of the local funding sources, the City of Joplin's and City of Webb City's Transportation Sales Tax and Capital Improvement Sales Tax programs are anticipated to make the greatest contribution toward funding the identified roadway improvement projects that are identified in the fiscally constrained 2036 horizon period.

Table 4.1 provides a summary of projected funding available for roadway capital improvements over the next 20 years.

TABLE 4.1

ESTIMATED FEDERAL, STATE AND LOCAL REVENUE FOR FUNDING ROADWAY AND TRANSIT O&M, NEW AND PROGRAMMED PROJECTS

Funding Agency	Program	Carryover Funds	Projected 2016 Revenues	Funds Available for O&M, New and Programmed Projects			
				TOTAL 2016-2020	TOTAL 2021-2025	TOTAL 2026-2036	20 Year Total
	ROADWAY FUNDING						
FHWA	STP Small Urban Funds (City of Joplin)	$539,122	$269,561	$2,011,905	$1,657,630	$4,199,673	**$7,869,208**
	BRO (Jasper)	$900,377	$252,443	$2,279,633	$1,552,365	$3,932,980	**$7,764,978**
	BRO (Newton)	$2,257,551	$232,229	$3,526,365	$1,428,062	$3,618,052	**$8,572,480**
	Trans. Altern. Program (TAP) Funds	$0	$357,500	$1,953,250	$2,198,400	$5,569,734	**$9,721,383**
	Highway Safety Improvement Program	$0	$310,500	$1,696,459	$1,909,379	$4,837,489	**$8,443,327**
	National Highway Performance Program	$0	$2,450,000	$13,385,906	$15,065,955	$38,170,202	**$66,622,062**
	Surface Transportation Program (STP)	$0	$2,450,000	$13,385,906	$15,065,955	$38,170,202	**$66,622,062**
	FHWA Total	*$3,697,050*	*$6,322,233*	*$38,239,423*	*$38,877,746*	*$98,498,330*	***$175,615,499***
MoDOT	State Trans. Revenues - Operations	$0	$3,044,762	$16,635,468	$18,723,366	$47,436,400	**$82,795,234**
	State Trans. Revenues - Program	$0	$1,131,500	$6,182,103	$6,958,011	$17,628,401	**$30,768,516**
	MoDOT Total	*$0*	*$4,176,262*	*$22,817,571*	*$25,681,377*	*$65,064,801*	***$113,563,750***
Joplin	1/2 Cent Transportation Sales Tax	$5,299,114	$5,760,452	$34,101,374	$28,802,260	$57,604,520	**$120,508,154**
	3/8 Cent CIP	$0	$3,100,000	$15,500,000	$15,500,000	$31,000,000	**$62,000,000**
	State Revenues to Cities	$0	$1,966,277	$9,831,385	$9,831,385	$19,662,770	**$39,325,540**
	Joplin Total	*$0*	*$10,826,729*	*$59,432,759*	*$54,133,645*	*$108,267,290*	***$221,833,694***
Carl Junction	1/2 Cent Transportation Sales Tax	$0	$156,000	$780,000	$780,000	$1,560,000	**$3,120,000**
	1/2 Cent CIP	$0	$156,000	$780,000	$780,000	$1,560,000	**$3,120,000**
	State Revenues to Cities	$0	$288,321	$1,441,606	$1,441,606	$2,883,212	**$5,766,423**
	Carl Junction Total	*$0*	*$600,321*	*$3,001,606*	*$3,001,606*	*$6,003,212*	***$12,006,423***
Webb City	1/2-cent Transportation Sales Tax	$0	$560,000	$2,800,000	$2,800,000	$5,600,000	**$11,200,000**
	3/8-cent CIP	$0	$750,000	$3,750,000	$3,750,000	$7,500,000	**$15,000,000**
	State Revenues to Cities	$0	$425,840	$2,129,200	$2,129,200	$4,258,400	**$8,516,800**
	Webb City Total	*$0*	*$1,735,840*	*$8,679,200*	*$8,679,200*	*$17,358,400*	***$34,716,800***
Jasper County	State Revenues to Counties	$0	$1,442,937	$7,214,685	$7,214,685	$14,429,370	**$28,858,740**
	Jasper County Total	*$0*	*$1,442,937*	*$7,214,685*	*$7,214,685*	*$14,429,370*	***$28,858,740***
Newton County	State Revenues to Counties	$0	$1,230,336	$6,151,680	$6,151,680	$12,303,360	**$24,606,720**
	Newton County Total	*$0*	*$1,230,336*	*$6,151,680*	*$6,151,680*	*$12,303,360*	***$24,606,720***
	TRANSIT FUNDING						
FTA	Prior Section 5307 Bus Formula Funds	$3,058,277	$289,771*	$3,058,277	$0	$0	**$3,058,277**
	Prior Section 5339 Bus Formula Funds	$361,428	$0	$361,428	$0	$0	**$361,428**
	Grant MO-90-X297	$290,130	$0	$290,130	$0	$0	**$290,130**
	Grant MO-90-X309	$569,997	$0	$569,997	$0	$0	**$569,997**
	Future Section 5307 Bus Formula Funds	$0	$1,019,282	$5,568,984.81	$6,267,941	$15,880,081	**$27,717,008**
	Future Section 5339 Bus Formula Funds	$0	$121,032	$661,274.67	$744,270	$1,885,639	**$3,291,184**
	Future Section 5310 Funds	$0	$20,000	$109,272.70	$122,987	$311,593	**$543,854**
	FTA Total	$4,279,832	$1,160,314	$10,619,364	$7,135,199	$18,077,314	**$35,831,878**
MoDOT	MoDOT Public Transit Operating Assist.	$0	$8,221	$41,105	$41,105	$82,210	**$164,420**
	MoDOT Total	$0	$8,221	$41,105	$41,105	$82,210	**$164,420**
Joplin	Fare Revenue	$0	$127,596	$637,980	$637,980	$1,275,960	**$2,551,920**
	1/2 Cent Transportation Sales Tax**	$0	$639,548	$3,197,740	$3,197,740	$6,395,480	**$12,790,960**
	Joplin Total		$767,144	$3,835,720	$3,835,720	$7,671,440	**$15,342,880**
	ROADWAY REVENUE TOTAL:			**$145,536,925**	**$143,739,939**	**$321,924,763**	**$611,201,626**
	TRANSIT REVENUE TOTAL:			**$14,496,189**	**$11,012,024**	**$25,830,964**	**$51,339,178**

- No inflation rate was utilized for funding values estimated in future years for the local projects.
- 3% inflation rate was utilized for funding values estimated in future years for the state and federal MoDOT projects.
- Carryover balance was added to 2016 - 2020 funding band as an assumption to show full revenue potential.

* Carryover funds to be converted to grant.

** Includes additional alocation for Joplin Transit "Transfer Station" Project through Joplin Transportation Sales Tax.

4.2 ROADWAY FINANCIAL PLAN

4.2.1 ROADWAY IMPROVEMENT PROJECT COSTS

In order to determine the financial feasibility of the potential roadway improvement projects, a planning level cost estimate was developed for each project as itemized in ***Table 4.2*** on the following page.

The total estimated cost for identified potential roadway improvement projects is nearly $743 million (based on the project costs in **Table 4.2**) with an additional $8 million to be spent on projects already programmed. Operations and maintenance requirements expected in the next 20 years total approximately $126 million. The portion of estimated funding resources summarized in Section 4.1 that are available over the 20 year period totals over $611 million. Prioritization of projects is necessary to develop the fiscally constrained long range project list.

Projects that are already committed to through the Joplin 3/8 cent CIP Program make up approximately $62 million dollars of improvements scheduled for the next 20 years but the current 3/8 cent tax will only fund $31 million of those improvements. Thus, some projects may be delayed, construction may be dedicated to funds from the next CIP or project partnership may occur.

TABLE 4.2
POTENTIAL ROADWAY PROJECT COSTS

	No.	Sponsor	Route	From	To	Description	Cost (2016)
Potential Roadway Projects	148	Joplin	City Wide			Traffic Signal Upgrades	$250,000
	149	Joplin	City Wide			Municipal Building Improvements	$400,000
	150	Joplin	Pennsylvania Avenue	Pennsylvania Ave. Viaduct		Demo/Replace	$2,447,000
	143	Joplin	Maiden Lane	Perkins Street	Murphy Boulevard	Roadway extension (includes roundabout at new intersection)	$1,815,000
	151	Joplin	Florida Avenue	Zora Street	Turkey Creek Bridge	Improve 2 lane to 3 lane	$2,460,000
	152	Joplin	Perkins Street	Shifferdecker Avenue	Maiden Lane	Improve 2 lane to 3 lane	$2,426,000
	153	Joplin	4th Street	4th Street Viaduct		4th Street Viaduct	$17,610,000
	154	Joplin	North Park Lane	Turkey Creek Road	Newman Road	Roadway Extension (3 lane)	$4,369,000
	155	Joplin	McClelland Blvd	32nd Street	City Limit	Improve to Super 2	$4,227,000
	156	Joplin	Central Street	Florida Road	Range Line Road	Roadway Extension	$2,847,000
	116a	MoDOT	7th Street (MO 66)	Maiden Lane	Schifferdecker Avenue	Access Management and intersection improvements (improve 4 to 5 lanes)	$9,672,000
	116b	MoDOT	7th Street (MO 66)	Maiden Lane	Range Line Road	Access management and intersection improvements	$7,164,000
	105b	Joplin	Schifferdecker Avenue	7th Street (MO 66)	Bell Center Road	Widen road (2 to 4 lanes w/ median & turn lanes)	$4,410,000
	134a	MoDOT	32nd Street	Intersection w/ KCS		Railroad Overpass at Davis (with Intersection Realignment)	$12,000,000
	126	Joplin	44th Street	Intersection w/ I-44		Overpass at I-44	$3,940,000
	157	MoDOT	Range Line Road	Cardinal Drive/Mount Hope Road		New Traffic Signal (Need to Partner with Webb City)	$1,746,000
	158	Joplin	Indiana Avenue	Intersection w/ I-44		Overpass at I-44	$4,494,000
	159	Joplin	32nd Street	Intersection w/ McConnell Avenue		Intersection Improvements	$1,053,000
	105c	Joplin	Schifferdecker Avenue	Bell Center Road	Zora Street	Improve to Super 2	$2,861,000
	115	Joplin	Newman Road	Duquesne Road	MO 249	Improve from 2 lane to 3 lane	$4,507,200
	106e	Joplin	Duquesne Road	Newman Road	Zora Street	Improve from 2 lane to 3 lane	$2,068,000
	160	Joplin	44th Street	Main Street (MO 43)	Connecticut Avenue	Improve from 2 lane to 3 lane	$2,590,000
	161	Joplin	Perkins	Schifferdecker Avenue	Country Club Road	Improve to Super 2	$4,901,000
	162	Joplin	Duquesne Road	7th Street	Newman Road	Sidewalk Improvements	$328,000
	106a	Joplin	Duquesne Road	7th Street	Newman Road	Improve from 4 lane to 4 lane w/ median & left turn lanes	$2,504,000
	163	Joplin	50th Street	Connecticut Avenue	Range Line Road	Roadway Extension / Improve from 2 lane to 3 lane	$6,318,200
	138	Joplin	Connecticut Avenue	50th Street	Highlander Drive	Roadway Extension / Improve from 2 lane to 3 lane	$5,463,000
	164	Joplin	Loop 49	Route 171	13th Street	Roadway Improvements	$4,500,000
	165	MoDOT	Interstate 49	Route V	Interstate 44	Roadway Improvements	$44,000,000
	166	Joplin	Newman Road	Bus 71/49 (Range Line Road)	Duquesne Road	Pedestrian Improvement & ADA Accommodations	$600,000
	167	Joplin	Route Z	Harley Street	Karen Drive	Pedestrian Improvements	$2,250,000
	168	MoDOT	Range Line Road	Intersection w/ 36th Street		Intersection & Out Road Improvements	$2,250,000
	169	MoDOT	Southwest District			Pedestrian Improvements	NA - Engineering Only
	170	MoDOT	Southwest District			Safety Improvements	NA - Engineering Only
	171	MoDOT	Southwest District			Bridge Improvements	NA - Engineering Only
	172	MoDOT	7th Street (MO 66)	Schifferdecker Avenue	Range Line Road	Roadway Improvements	$25,500,000
	173	MoDOT	Southwest District			Bridge Preventative Maintenance	NA - Engineering Only
	174	Joplin	Main Street (RTE D)	Intersection w/ MacArthur Drive		Intersection Improvements	$325,000
	175	MoDOT	Hearnes Noulevard	32nd Street	Interstate 44	Pedestrian Improvements	$8,625,000
	176	MoDOT	Southwest District			Minor Routes Improvements	$2,000,000
	177	Joplin	City of Joplin			ADA and Pedestrian Improvements	$2,500,000
	178	MoDOT	Hearnes Boulevard	Intersection w/ 32nd Street		Intersection Improvements	$1,150,000
	179	Joplin	Connecticut Avenue	Intersection w/ 32nd Street		Intersection Improvements	$1,400,000
	180	MoDOT	Range Line Road	Intersection w/ KCS Railroad		Pedestrian Crossing Improvements	$900,000
	101a	Joplin	West Corridor	I-44	7th Street (MO 66)	New highway construction w/ limited access (Scoping TIP #09HS-10)	$65,625,000
	101b	Joplin	West Corridor	7th Street (MO 66)	MO 171	New highway construction w/ limited access (Scoping TIP #09HS-10)	$96,320,000
	102b	MoDOT	MO 171	Fir Road	RTE Z/Pennell Street	Improve from 2 lane to 4 lane divided (Scoping TIP# 09HS-12)	$41,850,000
	102c	MoDOT	MO 171	RTE Z/Pennell Street	MO 96	Improve from 2 lane to 4 lane divided (Scoping TIP# 09HS-12)	$18,780,000
	102d	MoDOT	MO 171	MO 96	MPO Boundary	Improve from 2 lane to 4 lane divided	$3,960,000
	147	Joplin	Zora Street	Range Line Road	MO 249	Improve from 3 lane to 4 lane w/ median & left turn lanes	$25,065,000
	104	Joplin	Zora Street	West Corridor	Main Street (MO 43)	New Roadway Construction	$38,837,000
	105a	Joplin	Schifferdecker Avenue	7th Street (MO 66)	Zora Street	Improve from 2 lane to 4 lane w/ median & left turn lanes	$19,298,750
	106b	Joplin	Duquesne Road/Hall	Newman Road	17th Street (W.C.)	Improve from 2 lane to 4 lane w/ median & left turn lanes	$16,872,500
	106c	Joplin	Duquesne Road/Hall	7th Street (MO 66)	20th Street	Improve from 2 lane to 4 lane w/ median & left turn lanes	$8,546,000
	107	Webb City	Hall	17th Street (W.C.)	Hawthorne	New roadway construction & Intersection at Centennial	$7,015,500
	145	Joplin	32nd Street	Schifferdecker Avenue	Central City Road	Improve from 3 lane to 5 lane	$8,965,000
	146	Joplin	20th Street	Duquesne Road	Prigmore Interchange	Improve from 3 lane to 4 lane w/ median & left turn lanes	$18,200,000
	113a	Joplin	Fir Road	Peace Church	MO 171	Improve and add center turn lane and roundabouts	$4,445,600
	113b	Joplin	Fir Road	Joplin Avenue	Peace Church	Improve and add center turn lane and roundabouts	$1,652,000
	117	Joplin	20th Street	West Corridor	Schifferdecker Avenue	Improve and add center turn lane	$7,204,000
	118b	Joplin	32nd Street	Country Club Road	West Corridor	Improve and add center turn lane and roundabouts	$3,602,000

TABLE 4.2
POTENTIAL ROADWAY PROJECT COSTS

	No.	Sponsor	Route	From	To	Description	Cost (2016)
Potential Roadway Projects	119	Joplin	St. Louis/Prairie Flower	Zora Street	MO 171	Improve and add center turn lane	$7,204,000
	122	Joplin	Black Cat Road	Newton Co / 32nd Street	7th Street (MO 66)	Improve and add center turn lane	$7,204,000
	124	Joplin	17th Street	Oronogo	Range Line Road	New roadway construction	$800,000
	127	Joplin	Route Z	Route YY	MO 171	Improve and add center turn lane and roundabouts	$13,530,000
	137	Joplin	Madison Street	Daugherty Street	Stadium Drive	Improve and add center turn lane	$2,820,000
	139	Joplin	Duquesne Road	Intersection w/ I-44		Overpass at I-44	$5,200,000
	141	Joplin	20th Street	Duquesne Road	MO 249	Improve and add center turn lane	$6,483,600
	184	Joplin	Douglas Fir Road	State Line	Range Line Road	Preserve corridor for east/west arterial	$35,700,000
	106d	Joplin	Duquesne Road	32nd Street	7th Street (MO 66)	Improve from 2 lane to 5 lane	$9,600,000
	109b	Joplin	Main Street (MO 43)	MO 171	Carl Junction City Limit	Improve and add center turn lane	$4,682,600
	181	MoDOT	7th Street (MO 66)	Prosperity Avenue	County Road 190	Improve and add center turn lane	$3,602,000
	182	Joplin	Zora Street	Main Street (MO 43)	Range Line Road	Improve to 5 lanes	$2,000,000
	183	Joplin	20th Street	Intersection w/ KCS		Grade Separation	$15,000,000
	110	MoDOT	MO 171	Hall	Main Street (MO 43)	Access Management and intersection improvements	$480,000
	111a	Joplin	Madison Street	MO 171	13th Street (W.C.)	Access Management and intersection improvements	$300,000
	111b	MoDOT	Range Line Road	13th Street (W.C.)	15th Street	Access Management and intersection improvements	$2,000,000
	111d	MoDOT	Range Line Road	15th Street	Interstate 44	Access Management and intersection improvements	$950,000
	121	Joplin	Peace Church	Zora Street	Fir Road	Improve roadway	$3,150,000
	125	Webb City	Carl Junction Road	Madison Street	Route D	New roadway construction	$1,800,000
	130a	MoDOT	MO 96	Route JJ	Route D	Access Management and intersection improvements	$2,000,000
	130b	MoDOT	MO 96	Intersection w/ Route D		Turn lane improvements	$550,000
	131	MoDOT	Route D	Hawthorne	MO 96	Improve and construct new bridge	$3,000,000
	132	MoDOT	Route D	Intersection w/ Ivy		Intersection improvement	$550,000
	133	MoDOT	Route FF	Intersection w/ Reinmiller		Intersection improvement	$550,000
	185	Joplin	Old 71 (Tipton Ford)	Bridge at Shoal Creek		Bridge replacement	$1,200,000
	144	Webb City	Madison Street	Intersection w/ MacArthur		Intersection Improvements	$1,396,650
	181	Joplin	Connecticut Avenue	Interchange @ I-44		New Interchange	$9,500,000
						Subtotal	$742,564,100
Projects Already Programmed							
	TIP #01TAP-16	Carl Junction	Route Z			Transportation Alternatives Program - Sidewalk Improvements - Phase 3	$357,500
	TIP #07HS-12	MoDOT	Madison Street			Scoping for roadway improvements from Rte. 171 to 13th Street	$6,000
	TIP #08HS-12	MoDOT	I-49			Scoping for roadway improvements from Rte. V near Carthage to Rte. FF	$6,000
	TIP #06HS-12	MoDOT	7th Street (Route 66)			Scoping for roadway improvements from 0.5 mi west of Rte. P to 0.1 mi west of Loop 49	$6,000
	TIP #09HS-12	MoDOT	Newman Road			Scoping for ped imprvmts. and ADA accom. from Loop 49 to Duquesne and on Range Line	$6,000
	TIP #11HS-12	MoDOT	Harley Street			Scoping for ped improvements and ADA accommodations from Harley St to Karen Dr	$6,000
	TIP #05HS-14	MoDOT	Route 43			Scoping for roadway improvements from Rte. FF (32nd Street) to I-44	$6,000
	TIP #04HS-16	MoDOT	Interstate 44			Scoping for pavement improvements from Loop 49 (Range Line Road) to east of Rte. 37	$6,000
	TIP #14HS-12	MoDOT	Range Line Road			Scoping for intesection and outer road improvements on Range Line Road at 36th Street	$6,000
	TIP #22HS-12	MoDOT	Southwest District			Scoping for pedestrian improvements and ADA accommodations along various routes	$6,000
	TIP #20HS-12	MoDOT	Southwest District			Scoping for safety improvements at various locations in the rural Southwest District	$6,000
	TIP #21HS-12	MoDOT	Southwest District			Scoping for bridge improvements at various locations in the rural Southwest District	$6,000
	TIP #33HS-11	MoDOT	Southwest District			Scoping for bridge preventive maintenance at various locations	$6,000
	TIP #14HS-14	MoDOT	Southwest District			Scoping for pavement improvements on primary routes in the rural Southwest District	$45,000
	TIP #07HS-12	MoDOT	Route 43			Pavement improvements from south of Rte. 171 in Airport Drive to Murphy Boulevard	$814,000
	TIP #01HS-16	MoDOT	Various			Job Order Contracting for pvmt. repair from the Ok State line to Rte. 360 in Greene Co.	$216,000
	TIP #20HS-12	MoDOT	Southwest District			Job Order Contracting for guard cable and guardrail repair at various locations	$568,000
	TIP #20HS-14	MoDOT	Southwest District			Job Order Contracting for guard cable and guardrail repair at various locations	$586,000
	TIP #21HS-14	MoDOT	Southwest District			Job Order Contracting for guard cable and guardrail repair at various locations	$553,000
	TIP #01SS-12	MoDOT	Southwest District			Safe and Sound Bridge Program (Est. for JATSO area portion only; 3 bridges out of 125)	$181,000/year
	TIP #23HS-14	MoDOT	Southwest District			Safety improvements at various locations in the rural Southwest District	$173,000
	TIP #02HS-16	MoDOT	Southwest District			On call work zone enforcement at various locations in the rural Southwest District	$34,000
	TIP #03HS-16	MoDOT	Southwest District			On call work zone enforcement at various locations in the rural Southwest District	$21,000
	TIP #01ITS-14	MoDOT	Southwest District			ITS Operations and Management in the rural Southwest District	$38,000
	TIP #01ITS-15	MoDOT	Southwest District			ITS Operations and Management in the rural Southwest District	$38,000
	TIP #04T-16	Joplin	Transfer Station			Transfer Station at 15th Street and Connecticut Avenue	$2,548,744
	TIP #01T-16	Joplin Transit	Transit Vehicles			16: Replace 3 MAPS Vans. '17: Replace 1 MAPS Van. 2018: Replace 2 MAPS Vans.	$390,000
	TIP #02T-16	Joplin Transit	Pedestrian Shelters			Two (2) pedestrian waiting shelters and one (1) pedestrian waiting bench.	$25,000
	TIP ###X-##	Joplin Transit	Operations & Maint.			Annual Transit Operating Expenditures.	$1,207,537
	TIP #03T-16	Joplin Transit	Operator Training			Transit Operator Training Development Course.	$10,000
						Subtotal	$7,877,781

4.2.2 PROJECT EVALUATION AND PRIORITIZATION

In order to compare the projects objectively, an evaluation process was developed that accounts for traffic operations, project costs and socio-economic factors. The project alternative evaluation criteria are shown below in ***Table 4.3***.

Table 4.3: Potential Project Alternative Evaluation Criteria

ISSUES	METHOD OF MEASUREMENT	UNITS
Traffic Operation Factors		
Traffic Flow and Congestion	VHT statistics from travel demand model	Daily vehicle hours traveled (VHT)
Reduced Trip Length	VMT statistics from travel demand model	Daily vehicle miles traveled (VMT)
Project Costs		
Construction Costs	Estimated cost of construction in 2016 dollars	Dollars
Socio-Economic Factors		
Roadway User Economic Analysis	Use VMT and VHT statistics to determine benefits compared to construction costs	B/C Ratio

Of the 85 roadway and bridge projects considered, 14 projects were evaluated individually to determine the system-wide impact of each in the Travel Demand Model.

The quantified benefit based on travel demand model output for each of the potential project alternatives included in the model analysis is listed in ***Table 4.4***. A summary of benefit/cost evaluation for the projects included in the model is presented in ***Table 4.5.*** These projects have been listed in order of priority.

TABLE 4.4
COMPARISON OF PROJECT OPERATIONAL COST SAVINGS

Alternative	2036 (Horizon Year)					
	Vehicle Miles Traveled (VMT)	Vehicle Hours Traveled (VHT)	Daily Δ Miles	Daily Δ Delay (Hours)	Daily Fuel Savings	Daily Time Savings
E+C	3,301,692	114,684	0	0	0	0
134a	3,301,738	114,681	45.5	-3.3	$115	-$46
145	3,301,640	114,511	-53.0	-173.1	-$134	-$2,468
107	3,301,742	114,676	49.5	-8.3	$125	-$118
144	3,301,690	114,683	-2.5	-1.3	-$6	-$18
147	3,301,733	114,677	40.5	-6.8	$102	-$96
101a	3,300,431	114,031	-1261.5	-653.3	-$3,180	-$9,314
102b	3,301,789	114,647	97.0	-37.4	$244	-$533
146	3,301,651	114,679	-41.5	-5.3	-$105	-$75
105a	3,301,955	114,635	262.5	-48.8	$662	-$696
106c	3,301,652	114,659	-40.7	-25.4	-$103	-$362
106b	3,301,681	114,679	-11.5	-5.3	-$29	-$75
104	3,301,720	114,669	27.5	-15.3	$69	-$218
102c	3,301,694	114,683	1.7	-1.8	$4	-$25
101b	3,301,732	114,571	39.5	-113.3	$100	-$1,615

TABLE 4.5
ROADWAY PROJECT BENEFIT/COST ANALYSIS SUMMARY

No.	Route	From	To	(mi)	Description	Total Savings	Benefit/Cost	Project Cost
134a	32nd Street	Intersection w/ KCS	-	-	Railroad Overpass at Davis (with Intersection Realignment)	$42,745,522	3.56	-$12,000,000
145	32nd Street	Schifferdecker Avenue	Central City Road	0.9	Improve from 3 lane to 5 lane	$31,152,060	3.48	-$8,965,000
107	Hall	17th Street (W.C.)	Hawthorne	3.0	New roadway construction & Intersection at Centennial	$21,676,987	3.09	-$7,015,500
144	Madison Street	Intersection w/ MacArthur	-	-	Intersection Improvements	$4,249,591	3.06	-$1,396,650
147	Zora Street	Range Line Road	MO 249	1.3	Improve from 3 lane to 4 lane w/ median & left turn lanes	$48,105,172	1.92	-$25,065,000
101a	West Corridor	I-44	7th Street (MO 66)	7.0	New highway construction w/ limited access (Scoping TIP #09HS-10)	$91,898,411	1.40	-$65,625,000
102b	MO 171	Fir Road	RTE Z/Pennell Street	2.5	Improve from 2 lane to 4 lane divided (Scoping TIP# 09HS-12)	$73,502,708	1.76	-$41,850,000
146	20th Street	Duquesne Road	Prigmore Interchange	3.0	Improve from 3 lane to 4 lane w/ median & left turn lanes	$31,113,989	1.71	-$18,200,000
105a	Schifferdecker Avenue	7th Street (MO 66)	Zora Street	2.1	Improve from 2 lane to 4 lane w/ median & left turn lanes	$29,371,025	1.52	-$19,298,750
106c	Duquesne Road/Hall	7th Street (MO 66)	20th Street	1.0	Improve from 2 lane to 4 lane w/ median & left turn lanes	$12,051,342	1.41	-$8,546,000
106b	Duquesne Road/Hall	Newman Road	17th Street (W.C.)	2.0	Improve from 2 lane to 4 lane w/ median & left turn lanes	$20,596,279	1.22	-$16,872,500
104	Zora Street	West Corridor	Main Street (MO 43)	4.4	New Roadway Construction	$38,846,953	1.00	-$38,837,000
102c	MO 171	RTE Z/Pennell Street	MO 96	2.1	Improve from 2 lane to 4 lane divided (Scoping TIP# 09HS-12)	$15,618,350	0.83	-$18,780,000
101b	West Corridor	7th Street (MO 66)	MO 171	9	New highway construction w/ limited access (Scoping TIP #09HS-10)	$40,201,032	0.42	-$96,320,000

Notes/Assumptions:
1. Passenger Driver Value of Time = $12.98/hr
2. Truck Driver of Time = $25.75/hr
3. Inflation Rate = 3%

4.2.3 FISCALLY-CONSTRAINED ROADWAY IMPROVEMENT PLAN

As previously discussed, the portion of estimated funding resources summarized in Section 4.1 that are available for street and highway improvements over the 20 year period total $611 million. As part of developing the fiscally constrained long range roadway improvement plan, the projected revenue streams have been grouped in three analysis periods: Short-Term (2016-2020), Mid-Term (2021-2025), and Long-Term (2026-2036). The roadway improvement projects were then grouped into these analysis periods to match anticipated funding levels based on project costs and the prioritization process described in Section 4.2.2. The resulting 20-year fiscally constrained roadway improvement plan is summarized in ***Table 4.6***. The projects are listed in relative order of priority based on the criteria described in ***Table 4.3***.

In order to demonstrate fiscal constraint, funding for each jurisdiction was separated into distinct funding groups specific to each agency. Total revenue, operational & maintenance spending and anticipated cost for new projects were compared to determine the actual final balance for each jurisdiction. These values were separated into three "funding bands" where the first two bands have a duration of five years each and the final band has a ten year duration. The expected financial summary for each jurisdiction analyzed is shown in **Table 4.7**.

TABLE 4.6

RECOMMENDED FISCALLY-CONSTRAINED 2036 ROADWAY AND TRANSIT IMPROVEMENT PLAN

	No.	Sponsor	Route	From	To	Description	Cost per year (2016)	2016-2020	2021-2025	2026-2036	20 Year Total
Proposed Projects						*ROADWAY PROJECTS*					
	NA	MoDOT	Pavements and Bridges	-	-	MoDOT Pavement and Bridges Program	$4,000,000	$21,854,540	$24,597,477	$62,318,697	**$108,770,714**
	NA	MoDOT	ITS Operations and Management		-	MoDOT ITS Operation and Management	$20,000	$109,273	$122,987	$311,593	**$543,854**
	NA	MoDOT	Safety Projects	-	-	MoDOT Safety Projects	$300,000	$1,639,091	$1,844,811	$4,673,902	**$8,157,804**
	NA	MoDOT	ADA Transition Plan	-	-	MoDOT ADA Transition Plan	$200,000	$1,092,727	$1,229,874	$3,115,935	**$5,438,536**
						Subtotal	**$4,520,000**	**$24,695,630**	**$27,795,149**	**$70,420,127**	**$122,910,907**
	147	Joplin	Zora Street	Range Line Road	MO 249	Improve from 3 lane to 4 lane w/ median & left turn lanes	$25,065,000	$1,327,663	$6,149,369	$29,367,686	**$36,844,718**
	101a*	Joplin	West Corridor	I-44	7th Street (MO 66)	New highway construction w/ limited access (Scoping TIP #09HS-10)	$65,625,000	$40,321,626	$18,325,121	$21,538,900	**$80,185,646**
	145	Joplin	32nd Street	Schifferdecker Avenue	Central City Road	Improve from 3 lane to 5 lane	$8,965,000		$11,025,819		**$11,025,819**
	146*	Joplin	20th Street	Duquesne Road	Prigmore Interchange	Improve from 3 lane to 4 lane w/ median & left turn lanes	$31,113,989			$18,695,609	**$18,695,609**
						Subtotal	**$99,655,000**	**$41,649,290**	**$35,500,309**	**$69,602,194**	**$146,751,793**
	107	Webb City	Hall	17th Street (W.C.)	Hawthorne	New roadway construction & Intersection at Centennial	$7,015,500			$10,929,920	**$10,929,920**
	144	Webb City	Madison Street	Intersection w/ MacArthur	-	Intersection Improvements	$1,396,650		$1,717,703		**$1,717,703**
						Subtotal	**$8,412,150**		**$1,717,703**	**$10,929,920**	**$12,647,624**
	NA	Jasper	Off-System Bridge			Off-System Bridge Improvements	$251,073	$697,869	$1,543,938	$3,911,628	**$6,153,435**
	NA	Newton	Off-System Bridge			Off-System Bridge Improvements	$251,073	$697,869	$1,543,938	$3,911,628	**$6,153,435**
						Subtotal	**$502,146**	**$1,395,738**	**$3,087,875**	**$7,823,256**	**$12,306,869**
						TRANSIT PROJECTS					
	NA	Joplin Transit	Pedestrian Shelters	-	-	Replacement of pedestrian waiting shelters.	$0	$218,545	$184,481	$467,390	**$870,417**
	NA	Joplin Transit	Transit Vehicles	-	-	Replacement of transit vehicles.	$0	$229,473	$959,302	$2,025,358	**$3,214,132**
						Subtotal	**$0**	**$448,018**	**$1,143,783**	**$2,492,748**	**$4,084,549**
Projects Already Programmed						*ROADWAY PROJECTS*					
	NA	Varies	Varies	-	-	Joplin CIP Program Projects funded through Joplin 3/8 cent Sales Tax	$51,653,000**	$15,496,534	$15,463,081	$30,812,915	**$61,772,530**
						Subtotal	**$51,653,000****	**$15,496,534**	**$15,463,081**	**$30,812,915**	**$61,772,530**
	TIP #01TAP-16	Carl Junction	Route Z	-	-	Transportation Alternatives Program - Sidewalk Improvements - Phase 3	$357,500	$357,500			**$357,500**
						Subtotal	**$357,500**	**$357,500**			**$357,500**
	NA	Jasper	Off-System Bridge	-	-	Schifferdecker Bridge at Turkey Creek	$252,443	$1,760,000			**$1,760,000**
						Subtotal	**$252,443**	**$1,760,000**			**$1,760,000**
	NA	Newton	Off-System Bridge			Jackson Avenue Bridge Replacement	$232,229	$2,698,200			**$2,698,200**
						Subtotal	**$232,229**	**$2,698,200**			**$2,698,200**
	TIP #07HS-12	MODOT	Madison Street	-	-	Scoping for roadway improvements from Rte. 171 to 13th Street	$6,000	$6,182			**$6,182**
	TIP #08HS-12	MODOT	I-49	-	-	Scoping for roadway improvements from Rte. V near Carthage to Rte. FF	$6,000	$6,182			**$6,182**
	TIP #06HS-12	MODOT	7th Street (Route 66)	-	-	Scoping for roadway improvements from 0.5 mi west of Rte. P to 0.1 mi west of Loop 49	$6,000	$6,182			**$6,182**
	TIP #09HS-12	MODOT	Newman Road	-	-	Scoping for ped imprvmts. and ADA accom. from Loop 49 to Duquesne and on Range Line	$6,000	$6,182			**$6,182**
	TIP #11HS-12	MODOT	Harley Street	-	-	Scoping for ped improvements and ADA accommodations from Harley St to Karen Dr	$6,000	$6,182			**$6,182**
	TIP #05HS-14	MODOT	Route 43	-	-	Scoping for roadway improvements from Rte. FF (32nd Street) to I-44	$6,000	$6,182			**$6,182**
	TIP #04HS-16	MODOT	Interstate 44	-	-	Scoping for pavement improvements from Loop 49 (Range Line Road) to east of Rte. 37	$6,000	$6,182			**$6,182**
	TIP #14HS-12	MODOT	Range Line Road	-	-	Scoping for intesection and outer road improvements on Range Line Road at 36th Street	$6,000	$6,182			**$6,182**
	TIP #22HS-12	MODOT	Southwest District	-	-	Scoping for pedestrian improvements and ADA accommodations along various routes	$6,000	$6,182			**$6,182**
	TIP #20HS-12	MODOT	Southwest District	-	-	Scoping for safety improvements at various locations in the rural Southwest District	$6,000	$6,182			**$6,182**
	TIP #21HS-12	MODOT	Southwest District	-	-	Scoping for bridge improvements at various locations in the rural Southwest District	$6,000	$6,182			**$6,182**
	TIP #33HS-11	MODOT	Southwest District	-	-	Scoping for bridge preventive maintenance at various locations	$6,000	$6,182			**$6,182**
	TIP #14HS-14	MODOT	Southwest District	-	-	Scoping for pavement improvements on primary routes in the rural Southwest District	$45,000	$46,364			**$46,364**
	TIP #07HS-12	MODOT	Route 43	-	-	Pavement improvements from south of Rte. 171 in Airport Drive to Murphy Boulevard	$814,000	$814,000			**$814,000**
	TIP #01HS-16	MODOT	Various	-	-	Job Order Contracting for pvmt. repair from the Ok State line to Rte. 360 in Greene Co.	$216,000	$216,000			**$216,000**
	TIP #20HS-12	MODOT	Southwest District	-	-	Job Order Contracting for guard cable and guardrail repair at various locations	$568,000	$584,980			**$584,980**
	TIP #20HS-14	MODOT	Southwest District	-	-	Job Order Contracting for guard cable and guardrail repair at various locations	$586,000	$621,504			**$621,504**
	TIP #21HS-14	MODOT	Southwest District	-	-	Job Order Contracting for guard cable and guardrail repair at various locations	$553,000	$553,000			**$553,000**
	TIP #01SS-12	MODOT	Southwest District	-	-	Safe and Sound Bridge Program (Est. for JATSO area portion only; 3 bridges out of 125)	$181,000/year	$905,000	$905,000	$362,000	**$2,172,000**
	TIP #23HS-14	MODOT	Southwest District	-	-	Safety improvements at various locations in the rural Southwest District	$173,000	$183,012			**$183,012**
	TIP #02HS-16	MODOT	Southwest District	-	-	On call work zone enforcement at various locations in the rural Southwest District	$34,000	$34,990			**$34,990**
	TIP #03HS-16	MODOT	Southwest District	-	-	On call work zone enforcement at various locations in the rural Southwest District	$21,000	$21,000			**$21,000**
	TIP #01ITS-14	MODOT	Southwest District	-	-	ITS Operations and Management in the rural Southwest District	$38,000	$39,140			**$39,140**
	TIP #01ITS-15	MODOT	Southwest District	-	-	ITS Operations and Management in the rural Southwest District	$38,000	$38,000			**$38,000**
						Subtotal		**$4,131,171**	**$905,000**	**$362,000**	**$5,398,171**
						TRANSIT PROJECTS					
	TIP #01T-16	Joplin Transit	Transit Vehicles	-	-	2016: Replace 3 MAPS Vans. 2017: Replace 1 MAPS Van. 2018: Replace 2 MAPS Vans.	$390,000	$399,867			**$399,867**
	TIP #02T-16	Joplin Transit	Pedestrian Shelters	-	-	Two (2) pedestrian waiting shelters and one (1) pedestrian waiting bench.	$25,000	$25,000			**$25,000**
	TIP #03T-16	Joplin Transit	Operator Training	-	-	Transit Operator Training Development Course.	$10,000	$10,000			**$10,000**
	TIP #04T-16	Joplin Transit	Transfer Station	-	-	Transfer Station at 15th Street and Connecticut	$2,548,744	$2,785,081			**$2,785,081**
						Subtotal		**$3,219,948**			**$3,219,948**
						ROADWAY REVENUES		**$145,536,925**	**$143,739,939**	**$321,924,763**	**$611,201,626**
						ROADWAY TOTAL EXPENSE		**$92,184,063**	**$84,469,118**	**$189,950,413**	**$366,603,594**
						TRANSIT REVENUES		**$14,496,189**	**$11,012,024**	**$25,830,964**	**$51,339,178**
						TRANSIT TOTAL EXPENSE		**$3,667,966**	**$1,143,783**	**$2,492,748**	**$7,304,497**

- Project costs were inflated by 3% to central year of funding group.

* Allocation of funding for Projects 101a & 146 reflect funds for right of way, utility relocation, engineering and a phased construction schedule to match future available funds.

** Appendix E shows project cost breakdown. Costs were inflated at 3% for all CIP projects.

Table 4.7 - Jurisdictional Financial Summary

City of Joplin	FY2016-2020	FY2021-2025	FY2026-2036	20 Year Total
Total Revenue (1/2 cent transp. sales tax; 3/8 cent CIP; STP Small Urban Funds; State Revenues to Cities)	$61,444,664	$55,791,275	$112,466,963	**$229,702,902**
*O&M ($770,527 per year)	($4,209,878)	($4,738,255)	($12,004,560)	($20,952,693)
Total Revenue Available for Funding new Projects	$57,234,786	$51,053,020	$100,462,403	$208,750,209
Project Cost Estimate	($57,145,823)	($50,963,390)	($100,415,110)	($208,524,323)
Remaining Available Revenue	**$88,962**	**$89,630**	**$47,294**	**$225,886**
*O&M costs were inflated by 3% to central year of time band.				
Webb City	**FY2016-2020**	**FY2021-2025**	**FY2026-2036**	**20 Year Total**
Total Revenue (1/2-cent transp. sales tax; 3/8-cent CIP; State Revenues to Cities)	$8,679,200	$8,679,200	$17,358,400	$34,716,800
*O&M ($140,416 per year)	($767,182)	($863,470)	($2,187,636)	($3,818,287)
Total Revenue Available for Funding new Projects	$7,912,018	$7,815,730	$15,170,764	$30,898,513
Project Cost Estimate	$0.00	($1,717,703)	($10,929,920)	($12,647,624)
Remaining Available Revenue	**$7,912,018**	**$6,098,027**	**$4,240,844**	**$18,250,889**
*O&M costs were inflated by 3% to central year of time band.				
Carl Junction	**FY2016-2020**	**FY2021-2025**	**FY2026-2036**	**20 Year Total**
Total Revenue (1/2-cent transp. Sales tax; 1/2-cent CIP; State Revenues to Cities)	$3,001,606	$6,003,212	$6,003,212	$15,008,030
O&M ($18,256 per year)	($99,744)	($112,263)	($284,423)	($496,430)
Total Revenue Available for Funding new Projects	$2,901,862	$5,890,949	$5,718,789	$14,511,600
Project Cost Estimate	($357,500)	$0.00	$0.00	($357,500)
Remaining Available Revenue	**$2,544,362**	**$5,890,949**	**$5,718,789**	**$14,154,100**
*O&M costs were inflated by 3% to central year of time band.				

MoDOT (State & Federal Revenue (Highway Safety, NHPP, STP)

MODOT (STATE & FEDERAL REVENUE)	FY2016-2020	FY2021-2025	FY2026-2036	20 Year Total
Total Revenue (State & Federal Safety,NHPP, STP)	$51,285,841	$57,722,666	$146,242,693	$255,251,200
*O&M ($3,044,762 per year)	($15,685,107)	($16,321,985)	($35,348,742)	($67,355,833)
Total Revenue Available for Funding new Projects	$35,600,734	$41,400,681	$110,893,951	$187,895,367
Project Cost Estimate	($20,564,459)	($26,890,149)	($70,058,127)	($117,512,736)
Remaining Available Revenue	**$15,036,275**	**$14,510,532**	**$40,835,824**	**$70,382,631**
*O&M costs were inflated by 3% to central year of time band.				

Jasper County	FY2016-2020	FY2021-2025	FY2026-2036	20 Year Total
Total Revenue (State Revenues to Counties and BRO)	$9,494,318	$8,767,050	$18,362,350	$36,623,718
*O&M (includes all federal-aid miles) ($9,768 per year)	($53,369)	($60,067)	($76,091)	($189,527)
Total Revenue Available for Funding new Projects	$9,440,949	$8,706,983	$18,286,259	$36,434,191
Project Cost Estimate	($2,457,869)	($1,543,938)	($3,911,628)	($7,913,435)
Remaining Available Revenue	**$6,983,080**	**$7,163,045**	**$14,374,631**	**$28,520,757**
*O&M costs were inflated by 3% to central year of time band.				

Table 4.7 - Jurisdictional Financial Summary

Newton County	FY2016-2020	FY2021-2025	FY2026-2036	20 Year Total
Total Revenue (State Revenues to Counties and BRO)	$9,678,045	$7,579,742	$15,921,412	$33,179,199
*O&M (includes all federal-aid miles) ($11,033 per year)	($60,280)	($67,846)	($85,945)	($214,072)
Total Revenue Available for Funding new Projects	$9,617,765	$7,511,896	$15,835,467	$32,965,127
Project Cost Estimate	($3,396,069)	($1,543,938)	($3,911,628)	($8,851,635)
Remaining Available Revenue	**$6,221,695**	**$5,967,958**	**$11,923,839**	**$24,113,493**
*O&M costs were inflated by 3% to central year of time band.				

TRANSIT PROGRAM	FY2016-2020	FY2016-2020	FY2026-2036	20 Year Total
Total Revenue (Sections 5307, 5339 and 5310 Bus Formula Funds, Grants MO-90-X297 and MO-90-X309, MoDOT Public Transit Operating Assist., Fare Revnue, 1/2 cent Transp. Sales Tax)	$14,496,189	$11,012,024	$25,830,964	$51,339,178
*O&M ($2,415,074 per year)	($6,597,541)	($7,425,591)	($18,813,033)	($32,836,165)
Total Revenue Available for Funding new Projects	$7,898,648	$3,586,433	$7,017,931	$18,503,012
Project Cost Estimate	($3,667,966)	($1,143,783)	($2,492,748)	($7,304,497)
Remaining Available Revenue	**$4,230,681**	**$2,442,651**	**$4,525,183**	**$11,198,515**

4.3 TRANSIT FINANCIAL PLAN

Funding for the Metro Area PublicTransit System comes from a variety of sources including fares, the Transportation Sales Tax (T.S.T), state funds, Community Match and Federal funds. Information from MAPS and the TIP provide the following estimates of current funding for transit.

The total estimated cost over the next 20 years for identified transit improvement projects is nearly $4 million (based on the projects in **Table 4.6**) with an additional $3.2 million to be spent on projects already programmed. The portion of estimated funding resources summarized in Section 4.1 that are available for transit improvements over the 20 year period totals approximately $43 million.

The funding for transit is comprised of local funding, community match, state funding and federal funding. The transit system receives $639,548 from Joplin's 1/2 cent transportation sales tax, one dollar per pickup from other communities that utilize the system, $8,221 from MoDOT and approximately $1,160,314 from federal sources.

4.4 AVIATION FINANCIAL PLAN

The annual operating expenses estimated in American Eagle's proposal was $6.5 million dollars. Significant financing sources for the airport come from the City of Joplin transportation sales tax, service charges and user fees, and federal grants. The federal grant funds fluctuate from year to year and typically pay for capital improvements.

The airport currently receives funding through the Airport Improvement Plan (AIP), MoDOT programs such as the State Aviation Trust Fund Program, the State Transportation Assistance Revolving (STAR) fund, numerous bonds and local funding. At current funding levels, the airport is expected to receive $1 million dollars per year from their capital improvement program.