TUTS

Texarkana Urban Transportation Study

2035

Metropolitan Transportation Plan

PLAN

TEXARKANA MPO TEXAS – ARKANSAS

October 1, 2009

Participating Agencies:

City of Texarkana, Arkansas
City of Texarkana, Texas
City of Nash, Texas
City of Wake Village, Texas
Miller County, Arkansas
Bowie County, Texas
Arkansas State Highway and Transportation Department
Texas Department of Transportation

In Cooperation With
United States Department of Transportation
Federal Highway Administration
Federal Transit Administration

Metropolitan Transportation Plan for the Texarkana Metropolitan Area 2010 – 2035

This Plan has been funded with federal Metropolitan Planning (PL) funds through the Federal Highway Administration, Section 5303 funds through the Federal Transit Administration, the State of Arkansas, the State of Texas, and the City of Texarkana, Arkansas local match funds.

TEXARKANA METROPOLITAN PLANNING ORGANIZATION

NOTICE OF NONDISCRIMINATION

THE TEXARKANA METROPOLITAN PLANNING ORGANIZATION (MPO) MAKES EVERY EFFORT TO COMPLY WITH THE AMERICANS WITH DISABILITIES ACT OF 1990, SECTION 504 OF THE REHABILITATION ACT OF 1973, TITLE VI OF THE CIVIL RIGHTS ACT OF 1964 AND OTHER FEDERAL EQUAL OPPROTUNITY LAWS AND THEREFORE DOES NOT DISCRIMINATE ON THE BASIS OR RACE, SEX, COLOR, AGE, NATIONAL ORIGIN, RELIGION OR DISABILITY, IN ADMISSION OR ACCESS TO AND TREATMENT IN MPO PROGRAMS AND ACTIVITIES, AS WELL AS THE MPO'S HIRING OR EMPLOYMENT PRACTICES. COMPLAINTS OF ALLEGED DISCRIMINATION AND INQUIRIES REGARDING THE MPO'S NONDISCRIMINATION POLICIES MAY BE DIRECTED TO BRAD MCCALEB, P.E., MPO STUDY DIRECTOR – EEO/DBE (ADA/504/TITLE VI COORDINATOR), P.O. BOX 1967, TEXARKANA, TX 75504, (903) 798-3927, OR THE FOLLOWING EMAIL ADDRESS: MCCALEB@TXKUSA.ORG.

THIS NOTICE IS AVAILABLE FROM THE ADA/504/TITLE VI COORDINATOR IN LARGE PRINT, ON AUDIOTAPE AND IN BRAILLE.

THIS REPORT WAS PREPARED BY THE TEXARKANA METROPOLITAN PLANNING ORGANIZATION (TXKMPO). COMMENTS OR QUESTIONS REGARDING THE CONTENTS OF THIS REPORT SHOULD BE DIRECTED TO: TEXARKANA MPO, 220 TEXAS BOULEVARD, TEXARKANA, TEXAS 75501, 903.798.3927, TXKMPO@TXKUSA.ORG.

Texarkana MPO Policy Committee

Henry Slaton, Chairman	Mayor, City of Nash, TX
Horace Shipp, Vice Chairman	Mayor, City of Texarkana, AR
Don Donaldson, P.E.	District Engineer, AHTD
Alan Meadors, P.E.	Planning & Research Engineer, AHTD
James Carlow	County Judge, Bowie County
Ruth Davis	City Board Member, City of Texarkana, AR
Karl Steed	City Board Member, City of Wake Village, AR
Harold Boldt	City Manager, City of Texarkana, AR
Kyle Dooley	City Engineer, City of Texarkana, TX
Willie Ray	City Council Member, City of Texarkana, TX
Larry Sullivan	City Manager, City of Texarkana, TX
Roy John McNatt	County Judge, Miller County
Dennis Beckham, P.E.	Director of Transportation, Planning & Development, TxDOT
Bob Ratcliff, P.E.	District Engineer, TxDOT

Texarkana MPO Technical Committee

Steven Alexander	AHTD-Little Rock	Mashell Daniel	City of Texarkana, TX
Bud Laumer	AHTD-Little Rock	Bill White	City of Wake Village, TX
William Cheatham	AHTD-Texarkana	David Blakeney	FHWA-AR
Bob Tullos	Arkansas Red River Commission	Theresa Claxton	FHWA-TX
Genevieve Burtchell	Ark-Tex Council of Governments	Marilyn Morris	Miller County, AR
John Addington	Bowie County, TX	Vera Matthews	Texarkana Urban Transit
Darrin Lafayette	City of Nash, TX	District	
Paul Hackleman	City of Texarkana, AR	Stephen Luebbert	Texarkana Regional Airport
Rick Garner	City of Texarkana, AR	Kenny Icenhower	TxDOT-Atlanta
Eston McGee II	City of Texarkana, AR	Rea Donna Jones	TxDOT-Atlanta
Dusty Henslee	City of Texarkana, TX	Deanne Simmons	TxDOT-Atlanta
Shirley Jaster	City of Texarkana, TX	Peggy Thurin	TxDOT-Austin

Texarkana MPO Staff

Brad McCaleb, P.E., A.V.S.	Study Director
Roger Burtchell	Transportation Planner
Malinda Walker	Office Technician

REVISIONS – MODIFICATIONS

Revision - Modification	Resolution #	Approval Date

This page intentionally left blank.

TABLE OF CONTENTS

TABLE OF CONTENTS

1 INTRODUCTION

What is the MPO? 1-1
What does the MPO do? 1-1
Challenges to the Transportation Program 1-3
Why we need a MTP 1-4
Planning Process 1-5
Public Involvement Process 1-6
Consultation With Federal, State And Local Resource Agencies 1-7
Inclusion of Indian Tribes in the Transportation Process 1-8

2 SOCIO-ECONOMIC DATA

Population Data 2-1
Housing Data 2-11
Income Data 2-15
Educational Data 2-16
Employment Data 2-19
Means of Transportation Data 2-20

3 ENVIRONMENTAL ISSUES

Wetlands 3-1
Endangered Species 3-3
Hazardous Materials 3-6
Noise Issues 3-6
Air Quality 3-6
Global Warming (Climate Change) 3-6
Planning Considerations 3-7

4 OPERATIONS & MANAGEMENT

O&M Goals 4-2
O&M Strategies 4-2
Realistic Solutions 4-2
Implementation Approach 4-3

5 ROADS & BRIDGES

Road Performance 5-1
Traffic Volumes 5-13
Bridge Performance 5-17
Travel Time Studies 5-19

6 BICYCLES & PEDESTRIANS

Master Bicycle and Pedestrian Plan Summary 6-1

7 PUBLIC TRANSPORTATION

Amtrak-Passenger Rail Service	7-1
Texarkana Regional Airport	7-2
Greyhound Intercity Bus Service	7-4
Texarkana Urban Transit District Public Transportation	7-4
TRAX – Rural Public Transportation	7-7
Elderly and Disabled Public Transportation	7-8
Coordinated Public Transit Human Services Transportation Plan	7-8
High Speed Passenger Rail Service	7-9

8 FREIGHT TRANSPORTATION

The Local Freight System	8-2
Water Transportation	8-2
Intermodal Facility	8-4

9 FINANCIAL PLAN

Revenue Sources	9-1
Reasonably Anticipated Revenue Estimates	9-11

10 PROPOSED TRANSPORTATION PROJECTS

Project Selection Methodology	10-1
AHTD Projects	10-3
City of Texarkana, Arkansas Projects	10-7
TxDOT Projects	10-10
City of Texarkana, Texas Projects	10-14
City of Nash, Texas Projects	10-18
Pedestrian and Bicycle Projects	10-25
Proposed Transit Activities	10-37
Proposed Airport Activities	10-40

LIST OF GRAPHS

Graph 2.1:	Percentage Population Increase From 1980 To 2000	2-1
Graph 2.2:	Population Projection For all DAZs	2-8
Graph 2.3:	Racial Population Projection For All DAZs	2-8
Graph 2.4:	Population by Age For All DAZs	2-9
Graph 2.5:	Housing Units For all DAZs	2-11
Graph 2.6:	Housing Units By Occupancy	2-11
Graph 2.7:	Persons By Poverty Level For All DAZs	2-15
Graph 2.8:	Education Level By Percentage Persons 25 Years And Over For U.S.	2-17
Graph 2.9:	2000 Education Levels By Percentage Cities In Texarkana Area	2-17
Graph 2.10:	Employment Data for All DAZs	2-19
Graph 2.11:	Vehicle Ownership For All DAZs	2-20
Graph 2.12:	Means Of Transportation For All DAZs	2-24
Graph 5.1:	IH-30 West of US 59 (Jarvis Parkway)	5-4
Graph 9.1:	Do Nothing Funding Scenario	9-3

LIST OF MAPS

Map 1.1:	Texarkana MPO Study Area Boundary	1-2
Map 2.1:	Demographic Analysis Zones (DAZ)	2-5
Map 3.1:	Area Waterways	3-8
Map 5.1:	2004 Level of Service	5-6
Map 5.2:	2009 Level of Service	5-7
Map 5.3:	2035 Level of Service Without Proposed Improvements	5-10
Map 5.4:	2035 Level of Service With Proposed Improvements	5-12
Map 5.5:	2004 Traffic Volume By Through Lane	5-14
Map 5.6:	2009 Traffic Volume By Through Lane	5-15
Map 5.7:	Area Bridges	5-18
Map 5.8:	1975 Travel Time Study	5-22
Map 5.9:	2005 Travel Time Study	5-23
Map 6.1:	Mockingbird Junction	6-3
Map 6.2:	Non-Motorized Conceptual Plan	6-6
Map 6.3:	Bicycle Plan	6-8
Map 6.4:	Pedestrian Plan	6-9
Map 7.1:	T-Line Transit Routes	7-6
Map 7.2:	Vision for High Speed Rail in America	7-10
Map 7.3:	Texas T-Bone High-Speed Rail Corridor	7-11
Map 10.1:	MTP Proposed Projects 2010 – 2013	10-19
Map 10.2:	MTP Proposed Projects 2014 – 2019	10-21
Map 10.3:	MTP Proposed Projects 2020 – 2035	10-23
Map 10.4:	Proposed Bicycle & Pedestrian Projects 2010-2013	10-31
Map 10.5:	Proposed Bicycle & Pedestrian Projects 2010-2019	10-33
Map 10.6:	Proposed Bicycle & Pedestrian Projects 2020-2035	10-35
Map 10.7:	Texarkana Regional Airport Capital Improvement Projects 2010-2014	10-42

LIST OF TABLES

Table 1.1:	Inclusion of Indian Tribes in Planning Process	1-9
Table 2.1:	Population Data From 1980 to 2000	2-2
Table 2.2:	1990 And 2000 Population Data By DAZ	2-3
Table 2.3:	Population Projections by DAZ	2-7
Table 2.4:	1990 And 2000 Racial Population Data By DAZ	2-8
Table 2.5:	1990 And 2000 Age Population Data By DAZ	2-10
Table 2.6:	1990 And 2000 Housing Data By Occupancy (Total and Occupied Housing Units)	2-12
Table 2.7:	1990 And 2000 Housing Data By Occupancy (Owner-Occupied and Renter Occupied Housing Units)	2-13
Table 2.8:	1990 And 2000 Housing Data By Occupancy (Vacant Housing Units)	2-14
Table 2.9	1990 And 2000 Poverty Level Income Data	2-16
Table 2.10:	1990 And 2000 Education Data	2-18
Table 2.11:	1990 And 2000 Employment Data By DAZ	2-19
Table 2.12:	1990 And 2000 Vehicle Ownership Data By DAZ	2-21
Table 2.13:	1990 Means Of Transportation Data By DAZ	2-22
Table 2.14:	2000 Means Of Transportation data by DAZ	2-23
Table 5.1:	Level of Service (LOS) for Highway Facilities	5-3
Table 7.1:	Historical And Future Annual Aviation Demand	7-3
Table 7.2:	Capital Improvement Projects – 2010 to 2014	7-4
Table 7.3:	T-Line Transit System Ridership and Operating Costs	7-5
Table 8.1:	Major Findings From Summary Report, February 2001 Ark-La-Tex Freight Transportation Study	8-5
Table 9.1:	T-Line Transit System Estimated Revenues By Source	9-12
Table 9.2:	Anticipated Arkansas Revenues in TUTS 2035 Plan	9-13
Table 9.3:	Anticipated Texas Revenues in TUTS 2035 Plan	9-16
Table 10.1a:	AHTD Constrained Project List 2010-2013	10-3
Table 10.1b:	AHTD Constrained Project List 2014-2019	10-4
Table 10.1c:	AHTD Constrained Project List 2020-2035	10-5
Table 10.1d:	AHTD Unconstrained Project List	10-6

Table 10.2a:	City of Texarkana, AR Constrained Project List 2010-2013	10-7
Table 10.2b:	City of Texarkana, AR Constrained Project List 2014-2019	10-8
Table 10.2c:	City of Texarkana, AR Constrained Project List 2020-2035	10-9
Table 10.3a:	TxDOT Constrained Project List 2010-2013	10-10
Table 10.3b:	TxDOT Constrained Project List 2014-2019	10-11
Table 10.3c:	TxDOT Constrained Project List 2020-2035	10-12
Table 10.3d:	TxDOT Unconstrained Project List	10-13
Table 10.4a:	City of Texarkana, TX Constrained Project List 2010-2013	10-14
Table 10.4b:	City of Texarkana, TX Constrained Project List 2014-2019	10-15
Table 10.4c:	City of Texarkana, TX Constrained Project List 2020-2035	10-16
Table 10.4d:	City of Texarkana, TX Unconstrained Project List	10-17
Table 10.5a:	City of Nash, TX Constrained Project List 2010-2013	10-18
Table 10.6a:	AR Pedestrian and Bicycle Constrained Project List 2010-2013	10-25
Table 10.6b:	AR Pedestrian and Bicycle Constrained Project List 2014-2019	10-26
Table 10.6c:	AR Pedestrian and Bicycle Constrained Project List 2020-2035	10-27
Table 10.7a:	TX Pedestrian and Bicycle Constrained Project List 2010-2013	10-28
Table 10.7b:	TX Pedestrian and Bicycle Constrained Project List 2014-2019	10-29
Table 10.7c:	TX Pedestrian and Bicycle Constrained Project List 2020-2035	10-30
Table 10.8a:	TUTD Constrained Activities List 2010-2013	10-37
Table 10.8b:	TUTD Constrained Activities List 2014-2019	10-38
Table 10.8c:	TUTD Constrained Activities List 2020-2035	10-39
Table 10.9a:	Texarkana Regional Airport Constrained Activity List 2010-2013	10-40
Table 10.9b:	Texarkana Regional Airport Constrained Activity List 2014-2019	10-41

1 INTRODUCTION

1 INTRODUCTION

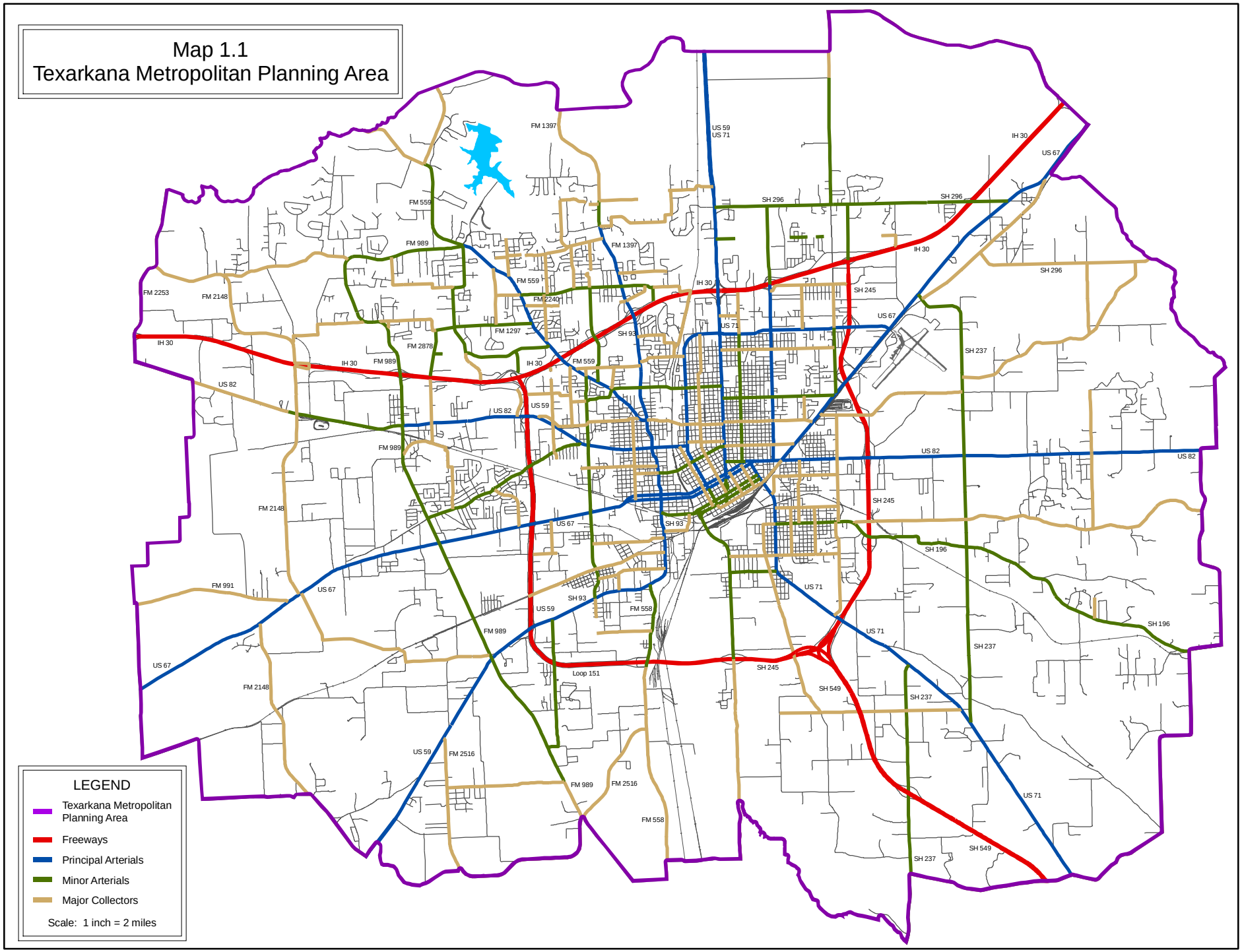
WHAT IS THE METROPOLITAN PLANNING ORGANIZATION?

A metropolitan planning organization is a transportation policy-making organization made up of representatives from local government and transportation authorities. The Federal Surface Transportation Assistance Act of 1973 required any urbanized area with a population greater than 50,000 persons to have a designated Metropolitan Planning Organization (MPO). The Policy Committee (PC) of the Texarkana Urban Transportation Study (TUTS) is designated by the governors of Arkansas and Texas as the MPO for the Texarkana Urbanized Area and is known as the Texarkana MPO. The fourteen (14) members of the PC represent cities, counties, and transportation agencies, from both Arkansas and Texas, serving the Texarkana, USA region. The PC is supported by a twenty-three (23) member Technical Committee (TC) and the MPO staff. The PC relies on its TC and the MPO staff for analysis and recommendations regarding transportation policy options. The Texarkana MPO study area is comprised of nearly 200 square miles in northeast Texas and southwest Arkansas. Jurisdictions involved in the MPO include the cities of Texarkana, Arkansas; Nash, Texas; Wake Village, Texas; and Texarkana, Texas; as well as Miller County, Arkansas and Bowie County, Texas. A boundary map, **Map 1.1,** of the Metropolitan Study Area is shown on the next page.

WHAT DOES THE MPO DO?

The MPO has five (5) core functions and produces three (3) key documents through the transportation planning process. The five (5) core functions include the following activities:

- Establish and manage a fair and impartial setting for effective regional decision-making.
- Evaluate available transportation alternatives given the size, complexity and nature of the region's transportation system.
- Develop and update a long-range transportation plan for the metropolitan area that addresses mobility and access for people and goods, efficient system performance and preservation, and quality of life.
- Develop a program based on the long-range transportation plan and designed to serve the area's goals.
- Involve the general public in the four (4) core functions listed above.


Map 1.1
Texarkana Metropolitan Planning Area
LEGEND
Texarkana Metropolitan Planning Area
Freeways
Principal Arterials
Minor Arterials
Major Collectors
Scale: 1 inch = 2 miles
FM 1397
US 59
US 71
IH 30
US 67
FM 559
SH 296
FM 989
FM 2253
FM 2148
FM 2240
SH 245
FM 1297
SH 93
FM 2878
SH 237
US 82
SH 549
FM 991
SH 196
Loop 151
FM 558
FM 2516

The three (3) key documents produced by the MPO are:

- The **Unified Planning Work Program (UPWP)**: The UPWP is the activities and budget document for the MPO staff and lists the transportation studies and tasks to be performed. This document covers a one (1) to two (2) – year time frame.
- The **Long-Range Transportation Plan (LRTP) or Metropolitan Transportation Plan (MTP)**: The MTP is the strategic planning document that identifies future investments to be made in the region's transportation system. The plan is required to have a continuous twenty (20)-year planning horizon and be updated every five (5) years.
- The **Transportation Improvement Program (TIP)**: The TIP is a four (4)-year funding program implementing the transportation projects and strategies identified in the MTP. The TIP is updated on a two (2) to three (3) year cycle as determined by each state transportation agency.

In addition to these three (3) key documents, the MPO is also required to develop and publish a Public Participation Plan (3P) and the Annual Listing of Obligated Projects (ALOP). The purpose of the 3P is to ensure that public participation is an integral part of the transportation planning process and that decisions are made with the benefit and consideration of public perspectives. The Annual Listing of Obligated Projects is published each year in December listing the projects for which federal funds were used in that fiscal year.

CHALLENGES TO THE TRANSPORTATION PROGRAM

The historic objective of public servants in the field of transportation was to provide and manage mobility as a means of increased freedom and economic opportunity. By and large, they have done that and done it so well that the public and our elected officials expect the transportation system to always be available and function at an acceptable level. Fulfilling these expectations requires a dedicated funding source and funding levels adequate to meet the demand for service. The number of vehicles using the system continues to grow, demand for alternative modes is increasing, and the maintenance needs of the system expand as the existing facilities age and new ones are built but funding levels have not kept pace.

The transportation sector faces several challenges, namely:

1. Regulatory requirements continue to expand (land-use, environment, etc.)
2. A declining and uncertain revenue source
3. Opposition to increased motor fuels taxes or alternative revenue sources
4. Decaying infrastructure
5. Increasing demand for new infrastructure and access to alternative modes

Starting with the Intermodal Surface Transportation Act of 1991 (ISTEA), the regulatory requirements for transportation planning have been expanded to include everything from mobility to the environment and land-use to social equality. The objectives have become so broad (i.e., land-use, global warming, economic development, etc.) that it is no longer possible

to assimilate and apply all the information effectively. More stringent requirements are also being placed on achieving single-focused objectives (i.e., reduced emissions, equal access to all modes, avoidance of negative impacts, reduced congestion, etc.). Conflicts between these objectives and the regulatory requirements associated with them are more frequent and increase the time it takes to complete projects as well as their cost. So, while reducing motor vehicle emissions by reducing the amount of miles driven or improving fuel efficiency may be a worthwhile objective, it also undercuts funding for the transportation system generated from motor fuels taxes. Elected officials, taking their cue from their constituents, are not eager to increase the motor fuels tax or supplement/replace it with a usage based tax or other revenue source. There have even been several steps taken at both the state and federal levels to prevent an increase in the motor fuels tax and/or eliminate the private sector as a funding option. The result is that the existing revenue stream continues to decline, the existing infrastructure continues to decay and the demand for new infrastructure continues to increase. This is a problem that affects everyone regardless of where we live or our economic situation. The number one objective moving forward should be to create a funding mechanism as close as possible to the time and place that transportation services are used and in such a way to maximize liberty, freedom of choice, economic opportunity, and quality of life.

WHY WE NEED A METROPOLITAN TRANSPORTATION PLAN

The Safe, Accountable, Flexible, Efficient Transportation Equity Act – A Legacy for Users (SAFETEA-LU), signed on August 10, 2005 and its predecessors, the 1998 Transportation Equity Act for the 21st Century (TEA-21) and the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, require each MPO to develop a MTP in order to be eligible to receive transportation program funding. Federal legislation requires the MPO to develop a Metropolitan Transportation Plan that encourages and promotes the safe and efficient management, operation, and development of surface transportation systems that will serve the mobility needs of the people and freight and foster economic growth and development within and through out the urbanized areas, while minimizing transportation-related fuel consumption and air pollution.

The *Texarkana Urban Transportation Study* (*TUTS) 2035 PLAN* is the Texarkana region's MTP. The *TUTS 2035 PLAN* is a strategic planning document designed to identify and address the transportation needs of the region through the year 2035. The primary use for the *TUTS 2035 PLAN* is as a regional long-range plan for federally funded transportation projects. The MTP serves as the framework for project development and guides public entities in selecting projects for implementation. It is a multimodal plan that describes needed improvements for all modes of transportation. It also considers a number of transportation issues, including connectivity, land use, and systems management. As such, the MTP forms the basis for transportation planning activities within the region and determines the nature of the future transportation system.

The purpose of the MTP is to formulate a vision, define goals, identify needs, and recommend strategies for improving the regional transportation system. The transportation needs addressed in the MTP include traditional topics such as

improving mobility, preserving the existing infrastructure, and enhancing safety as well as related strategic needs including supporting freight movement and improving the overall quality of life.

The MTP is the result of a cooperative effort that begins with a shared vision. Its development progresses with the analysis of needs and investigation of potential solutions. This evaluation leads to public adoption of specific projects and affordable strategies that best meet the region's mobility, economic development and environmental goals. The MTP is the result of inter-agency consultation between federal, state and local governments and transportation agencies as well as users of the transportation system. The transportation investments recommended in the MTP have been prioritized in order to balance estimated transportation costs with anticipated funding.

PLANNING PROCESS

The United States Department of Transportation (USDOT) relies on the MPO to ensure that existing and future expenditures for transportation projects and programs are based on a continuing, cooperative and comprehensive (3-C) planning process. The 3-C process is the foundation for regional transportation planning and includes input and direction from participating cities, counties, community agencies, elected officials and the public. The Texarkana MPO is the agency responsible for coordinating the transportation planning activities for the Texarkana region. The MPO staff and Technical Committee provide technical analyses and planning for the region. All regional plans, projects and programs, however, must be approved by the MPO Policy Committee (PC).

The MTP is both a product and a driving force of the planning process. It incorporates the plans and programs developed by many agencies and local governments into one comprehensive plan. The projects identified in the MTP are eligible for federal funding through the Transportation Improvement Program (TIP). Adoption of the MTP sets the stage for the short-term strategy and phasing for implementing the full plan.

SAFETEA-LU legislation requires that metropolitan planning organizations consider eight (8) specific issues or "factors" when developing transportation plans and programs. The eight (8) factors are as follows:

Factor #1: Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
Factor #2: Increase the safety of the transportation system for motorized and non-motorized users.
Factor #3: Increase the security of the transportation system for motorized and non-motorized users.

Factor #4: Increase the accessibility and mobility options available to people and for freight.
Factor #5: Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
Factor #6: Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.
Factor #7: Promote efficient system management and operation.
Factor #8: Emphasize the preservation of the existing transportation system.

PUBLIC PARTICIPATION PROCESS

The Texarkana MPO *Public Participation Plan* guided the public involvement procedures in the development of the MTP. The public process for updating the MTP included a request for project suggestions from the general public and member agencies, a series of focus group meetings, three (3) public meetings and corresponding comment periods.

There were six (6) focus groups that met with the MPO staff between May 6, and May 16, 2008. The six (6) groups represented educational institutions, freight transportation users and providers, public transportation providers, economic development interests, the minority community, and emergency responders. The MPO staff conducted listening sessions with each of these groups to find out how they used the transportation system. The participants shared with the MPO staff their thoughts about what improvements could be made to the system that would benefit or assist in their various areas of operation and how those improvements might benefit the community as a whole.

During January and February, 2009, the MPO issued a call for projects from the general public and its member agencies. No comments or suggestions from the public were received during this public comment period. Five (5) agencies involved in transportation, the Texas Department of Transportation (TxDOT), the Arkansas State Highway and Transportation Department (AHTD), the City of Texarkana, Arkansas, the City of Texarkana, Texas, and the Texarkana Urban Transit District (TUTD) submitted project lists. There were over 200 projects originally submitted for consideration.

The MPO staff met with members of the Technical Committee on June 17, 2009 for a project prioritization workshop. During the workshop, the MPO staff presented information from the public participation process. The committee members included representatives from each agency that submitted projects for consideration. The members reviewed the proposed projects and evaluated them based on comments from the public and transportation planning data. On July 28 and 29, 2009, the Technical Committee members met again to further prioritize projects based on anticipated revenue estimates and the coordination of projects across the region. The final list of projects were prioritized into four (4) categories: the first four (4) years of the MTP (2010 – 2013) which corresponds with the TIP time frame, the second six (6) years of the MTP (2014 – 2019), the last sixteen (16) years of the MTP (2020 – 2035), and projects for which there was no funding that could be reasonably anticipated but were considered important to fulfilling the vision for the transportation system. See Chapter 9: Financial Plan for a discussion on the sources of revenue and how the anticipated revenue estimates were derived.

One component of the *TUTS 2035 PLAN* was developed through a separate public involvement process. The Alliance Transportation Group, Inc., under contract to the Texarkana MPO, with the assistance of citizens from the Texarkana region, produced the Texarkana Bicycle and Pedestrian Master Plan (2009). An executive summary of the bicycle and pedestrian plan is presented in Chapter 6: Bicycles and Pedestrians.

CONSULTATION WITH FEDERAL, STATE AND LOCAL RESOURCE AGENCIES

The Texarkana MPO shall establish a timetable and a documented process to consult with the federal, state and local agencies listed below as part of the process to develop the metropolitan transportation plan. As part of the consultation process, these agencies will be invited to participate in discussions to formulate policies, programs, or strategies relevant to potential environmental mitigation activities and potential areas to carry out these activities as a result of the development of projects listed in the MTP.

Agencies to be consulted may include, but are not limited to, those federal, state and local agencies responsible for:

- Land Use Management
- Natural Resources
- Environmental Protection
- Conservation
- Wildlife
- Historic Preservation
- Planned Growth
- Economic Development
- Airport Operations
- Freight Movements
- Federal Land Management Agencies

INCLUSION OF INDIAN TRIBES IN THE TRANSPORTATION PLANNING PROCESS

To address the requirements of Section 106 of The National Highway Preservation Act that requires consultation with Indian Tribes during the planning process, the MPO sent an invitation to twenty-two (22) tribes on March 18, 2002. **Table 1.1** shows the tribes that were contacted and the subsequent status of the individual tribes' involvement.

On May 16, 2006, certified letters with return receipts were sent out to all persons on the public notification list. At the time the letters were sent, only two (2) tribes remained on the list: United Keetoowah Band and Caddo Nation of Oklahoma. The United Keetoowah Band requested that they be removed from the Notification List while the Caddo Nation of Oklahoma requested that they be kept on list.

THE VISION

A "vision" is a statement of the preferred future or anticipated outcome for a group. The vision defines the ultimate goal that a group is trying to accomplish. It serves as a guide for the actions taken by the group collectively. The vision for the *TUTS 2035 PLAN* is:

> ***Improve the Texarkana region's quality of life by creating a multimodal transportation system that supports economic development and increases the safety and efficiency of the transportation system for both people and goods, while being environmentally responsible.***

GOALS

The goals of the *TUTS 2035 PLAN* are:

- To develop a transportation plan that addresses the needs of all users and modes of travel
- To promote the efficient use of the existing transportation system
- To identify improvements to the transportation system that will support economic growth in the region
- To identify and preserve transportation corridors for future growth
- To identify the resources needed to implement identified improvements

TABLE 1.1

INCLUSION OF INDIAN TRIBES IN PLANNING PROCESS

Name of Tribe	Response to 03/18/2002 Contact	Subsequent Contact	Response to 05/16/2006 Notification Update	On Notification List
Alabama-Coushatta Tribe of Texas	No Response	Not Applicable	Not Applicable	No
Caddo Tribe of Oklahoma	Yes - 03/29/2002	Not Applicable	Yes – 05/30/2006	Yes
Cherokee Nation of Oklahoma	No - 03/22/2002	Not Applicable	Not Applicable	No
Choctaw Nation of Oklahoma	No Response	Not Applicable	Not Applicable	No
Citizen Band Potawatomi	No Response	Not Applicable	Not Applicable	No
Comanche Tribe of Oklahoma	No Response	Not Applicable	Not Applicable	No
Delaware Tribe of Western Oklahoma	No Response	Not Applicable	Not Applicable	No
Delaware Trust Board	Yes - 03/22/2002	Requested removal 03/24/2005	Not Applicable	No
Eastern Band of Cherokee Indians	No Response	Not Applicable	Not Applicable	No
Jena Bank of Choctaw Indians	No Response	Not Applicable	Not Applicable	No
Kialgee Tribal Town	No Response	Not Applicable	Not Applicable	No
Kickapoo of Kansas	No Response	Not Applicable	Not Applicable	No
Kickapoo of Oklahoma	No - 03/22/2002	Not Applicable	Not Applicable	No
Kickapoo Traditional Tribe of Texas	No Response	Not Applicable	Not Applicable	No
Mescalero Apache Tribe	No Response	Not Applicable	Not Applicable	No
Mississippi Band of Choctaw Indians	No Response	Not Applicable	Not Applicable	No
Pokagon Band of Potawatomi Indians of Michigan	No Response	Not Applicable	Not Applicable	No
Prairie Bank Potawatomi Council	No Response	Not Applicable	Not Applicable	No
Quapaw Tribal Business Committee	No Response	Not Applicable	Not Applicable	No
Thlopthlocco Tribal Town	No Response	Not Applicable	Not Applicable	No
United Keetoowah Band of Cherokee	No Response	Not Applicable	No – 05/31/2006	No
Wichita and Affiliated Tribes	No Response	Not Applicable	Not Applicable	No

This page intentionally left blank.

2 SOCIO ▮ ECONOMIC DATA

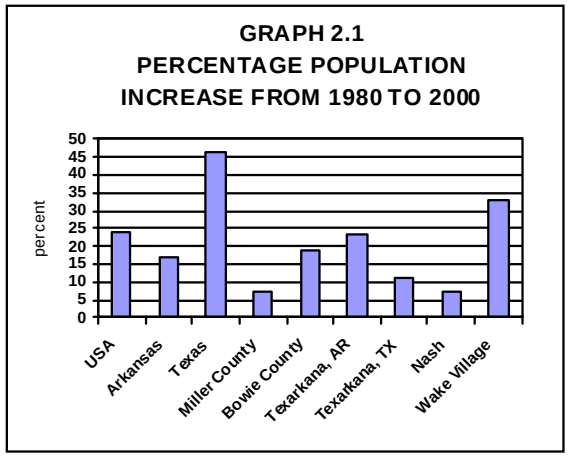
2 SOCIO-ECONOMIC DATA

The information in this chapter was prepared for the *TUTS 2030 PLAN* based on the availability of 2000 U.S. Census data. Since the 2010 U.S. Census data will probably not be available until 2012, there is not comparable data that can be utilized now to update the socio-economic data presented in this chapter. It is recommended that this chapter of the *TUTS 2030 PLAN* be amended at that time the 2010 Census data is published.

One of the first steps in analyzing the capability of the transportation system to meet the public's future needs is to understand past trends in social and economic factors. Understanding past trends can assist in projecting future needs for expanding the existing transportation system, to allocate funds for specific transportation improvements, and to consider what approaches should be considered to address future transportation needs. Social and economic factors that must be evaluated in planning for the future transportation system include population growth trends, ages of the driving public with particular concern for the elderly population, overall employment trends and specific locations of major employers, housing development, income level, educational level, vehicle ownership, and means of transportation utilized for travel. Assessing trends in these and other areas can help identify the locations for new transportation facilities, adding capacity to existing roadways, implementing new or revising existing transit routes, addressing concerns for the transportation of hazardous materials, facilitating the movement of freight through an area, and numerous other transportation-related issues.

POPULATION DATA

One of the most important factors affecting the need for transportation improvements is the change in its population over a period of time. For this reason, it is beneficial to analyze the population trends in the Texarkana metropolitan area with special emphasis placed on information contained in the 1980, 1990 and 2000 U.S. Censuses. **Graph 2.1** illustrates that between 1980 and 2000, the population of the United States increased by 24%, Texas' population increased by 46% (nearly double the national rate) and Arkansas experienced a slower growth rate of almost 17%. Collectively, the cities of Texarkana, Arkansas, Texarkana, Texas, Nash and Wake Village, increased 16.9% from a 1980 population of 58,617 to 68,528 in 2000. The 20-year increase of the four cities (9,911 persons) equates to an average increase of 495 persons per year.



During the 20-year period from 1980 to 2000, Bowie County's population increase of 18% was below the national average and less than half the increase of Texas, as shown in **Table 2.1**. Miller County's increase of 7% was about half the rate of increase of Arkansas and about one-third the national average.

Texarkana, Arkansas' increase of 23% was nearly equal to the national average and more than one-third greater than Arkansas' rate of population increase. However, a significant factor in the population increase for the year 2000 can be attributed to the city's area nearly doubling through annexations. Texarkana, Texas' increase of 11% was less than one-half the national average, less than one-fourth of Texas' rate of increase and 40% less than Bowie County's increase. Between 1980 and 2000, Texarkana, Texas' population increase was also aided by annexations. The 7% increase in population for Nash, Texas was nearly one-fourth the national average, one-sixth of Texas' increase, and less than one-half of Bowie County's increase. Wake Village's increase of nearly 33% was nearly one-third more than the national average, nearly one-third less than Texas' increase, and nearly twice as much as Bowie County's increase. Rates of population change for Red Lick could not be calculated because it was not incorporated prior to the 1990 census. Based on the analysis of the population changes from 1980 to 2000, most of the jurisdictions within the Texarkana area have experienced population growth substantially less than the state averages. Bowie County, Nash, Wake Village and Texarkana, Texas had rates of population increase less than the Texas average increase of 46%. Miller County's increase was significantly less than Arkansas' increase and only through aggressive annexation was Texarkana, Arkansas able to record a population growth rate greater than the state's.

The Texarkana urban area is composed primarily of the cities of Texarkana, Arkansas and Texarkana, Wake Village and Nash, Texas. In 1980, the population of these four (4) cities was 58,617 and by 2000 it had increased to 68,528. This increase of 9,911 persons, an increase of nearly 17%, is equal to the rate of increase of Arkansas but significantly lower than the national increase and Texas' rate of increase. The increase of 9,911 persons over the twenty (20)-year period equates to a yearly increase of 495 persons, with a substantial percentage of that increase due to annexation by the Cities of Texarkana, Arkansas and Texarkana, Texas.

TABLE 2.1
POPULATION DATA FROM 1980 TO 2000

	1980 Population	1990 Population	2000 Population	1980 to 2000 Population Change		
				Numeric	Percent	Average Annual Change
United States	226,545,805	248,709,873	281,421,906	54,876,101	24.2%	2,743,805
Arkansas	2,286,435	2,350,725	2,673,400	386,965	16.9%	19,348
Texas	14,229,191	16,986,510	20,851,820	6,622,629	46.5%	331,131
Miller County	37,766	38,467	40,443	2,677	7.1%	134
Bowie County	75,301	81,665	89,306	14,005	18.6%	700
Texarkana, AR	21,459	22,631	26,448	4,989	23.3%	249
Texarkana, TX	31,271	31,656	34,782	3,511	11.2%	176
Nash, TX	2,022	2,162	2,169	147	7.3%	7
Wake Village, TX	3,865	4,757	5,129	1,264	32.7%	63
Red Lick, TX	N/A	N/A	853	N/A	N/A	N/A

Source: 1980, 1990 and 2000 U.S. Census

To assist in the analysis of the socio-economic data for the Texarkana area, seventeen (17) demographic analysis zones (DAZs) were created as depicted in **Map 2.1**. These DAZs have been

designated by an individual census block group or a combination of two (2) or more census blocks groups. The information for the seventeen (17) DAZs, as depicted in **Table 2.2**, is based on 1990 and 2000 U.S. Census data. The population of the seventeen (17) DAZs was 85,798 in 1990 and 89,975 in 2000. During that ten (10)-year period, the population increased by 4,177 or 4.9%. In comparison, during this same period of time, the populations of Texas and Arkansas increased by 22.7% and 13.7%, respectively. Between 1990 and 2000, the rate of population increase in Texas was more than 4.6 times the rate of increase in the Texarkana area while Arkansas' population increased 2.8 times the rate of increase for the Texarkana area.

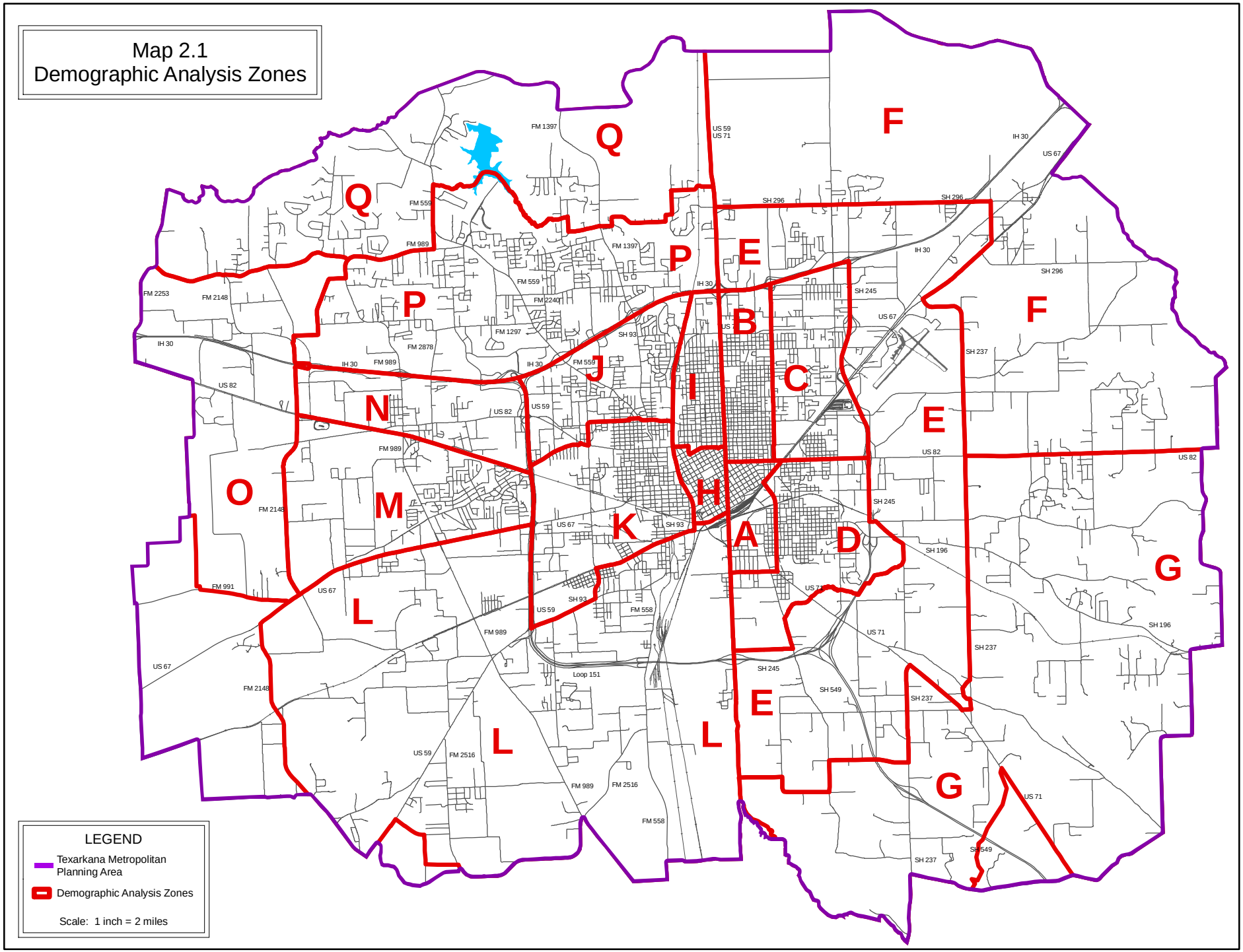
TABLE 2.2
1990 AND 2000 POPULATION DATA BY DAZ

DAZ	POPULATION		CHANGE FROM 1990 TO 2000	PERCENT CHANGE FROM 1990 TO 2000
	1990	2000		
A	2,034	2,292	258	12.7 %
B	6,402	6,527	125	2.0 %
C	7,273	6,908	- 365	- 5.0 %
D	6,659	5,604	- 1,055	- 15.8 %
E	3,003	4,172	1,169	38.9 %
F	2,770	3,965	1,195	43.1 %
G	4,464	4,724	260	5.8 %
H	936	1,659	723	77.2 %
I	5,070	5,016	- 54	- 1.1 %
J	7,311	7,091	- 220	- 3.0 %
K	9,202	8,155	- 1,047	- 11.4%
L	10,507	11,011	504	4.8 %
M	6,434	7,022	588	9.1 %
N	1,789	1,833	44	2.5 %
O	1,444	1,492	48	3.3 %
P	8,800	9,966	1,166	13.3 %
Q	1,700	2,538	838	49.3 %
TOTAL	**85,798**	**89,975**	**4,177**	**4.9 %**

Source: 1990 and 2000 U.S. Census.

Population Projections

Based on the population trends between 1990 and 2000 for the seventeen (17) DAZs and factoring in anticipated growth areas, future population estimates have been calculated for each of the DAZs for 2010, 2020 and 2030 and are presented in **Table 2.3**. The increase for each ten (10)-year period is assumed to be 4,200 persons. On this basis, the 2000 population of 89,975 is projected to increase to 94,200 in 2010, to 98,400 in 2020, and 102,600 in 2030 as shown in **Graph 2.2**.


Map 2.1
Demographic Analysis Zones
LEGEND
Texarkana Metropolitan Planning Area
Demographic Analysis Zones
Scale: 1 inch = 2 miles
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
FM 1397
US 59
US 71
IH 30
US 67
SH 296
FM 559
FM 989
FM 2253
FM 2148
FM 2240
SH 245
FM 1297
SH 93
FM 2878
US 82
SH 237
SH 196
FM 991
FM 558
Loop 151
SH 549
FM 2516

This page intentionally left blank.

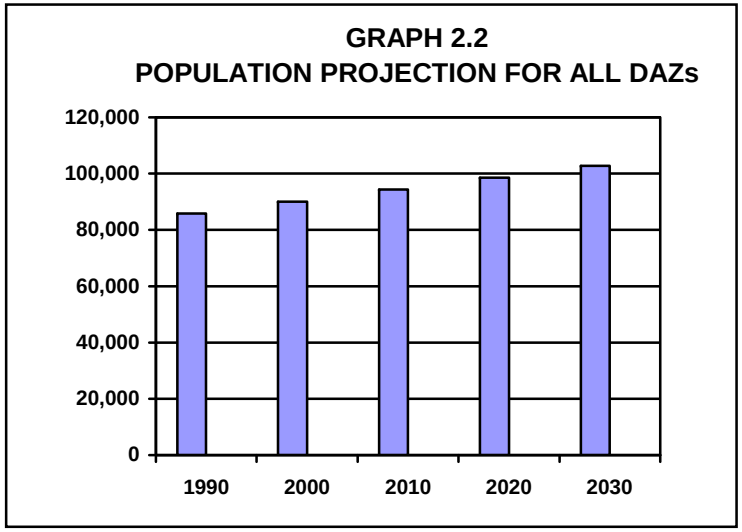
TABLE 2.3
POPULATION PROJECTIONS BY DAZ

DAZ	ACTUAL POPULATION			ESTIMATED FUTURE POPULATION			
	1990	2000	1990 TO 2000 CHANGE	ESTIMATED CHANGE EACH 10 YEARS	2010	2020	2030
A	2,034	2,292	258	0	2,300	2,300	2,300
B	6,402	6,527	125	100	6,600	6,700	6,800
C	7,273	6,908	- 365	-200	6,700	6,500	6,300
D	6,659	5,604	- 1,055	-800	4,800	4,000	3,200
E	3,003	4,172	1,169	1,100	5,300	6,400	7,500
F	2,770	3,965	1,195	1,100	5,100	6,200	7,300
G	4,464	4,724	260	300	5,000	5,300	5,600
H	936	1,659	723	0	1,700	1,700	1,700
I	5,070	5,016	- 54	0	5,000	5,000	5,000
J	7,311	7,091	- 220	-200	6,900	6,700	6,500
K	9,202	8,155	- 1,047	-900	7,300	6,400	5,500
L	10,507	11,011	504	500	11,500	12,000	12,500
M	6,434	7,022	588	600	7,600	8,200	8,800
N	1,789	1,833	44	200	2,000	2,200	2,400
O	1,444	1,492	48	300	1,800	2,100	2,400
P	8,800	9,966	1,166	1,100	11,000	12,100	13,200
Q	1,700	2,538	838	1,000	3,600	4,600	5,600
TOTAL	**85,798**	**89,975**	**4,177**	**4,200**	**94,200**	**98,400**	**102,600**

Source: 1990 and 2000 U.S. Census.

Two (2) areas expected to have the greatest decrease in population are DAZ D (College Hill area of Texarkana, Arkansas) and DAZ K (Beverly/Rosehill/industrial park areas of Texarkana, Texas). Four (4) areas are anticipated to grow by at least 1,000 persons during each ten (10)-year period. Two (2) of the areas are located in Texarkana, Arkansas and comprise the growth area north of Sugar Hill Road and north of US Highway 82, east of North Rondo Road (DAZ F) and the area south of Sugar Hill Road and east and south of SH 245 (DAZ E). The other two (2) higher growth areas are DAZ P and DAZ Q in the Pleasant Grove area north of I-30.

Table 2.4 and **Graph 2.3** reveal that the population of the racial groups in the Texarkana area are expected to continue the trends of the recent past with the white population experiencing a small decrease of approximately 1% (decrease of 800 persons) while the minority population is estimated to increase significantly by nearly 22% (5,000 persons) during each ten (10)-year period. By 2030 the white population is estimated to be 59,500 and the minority population to be 43,100.



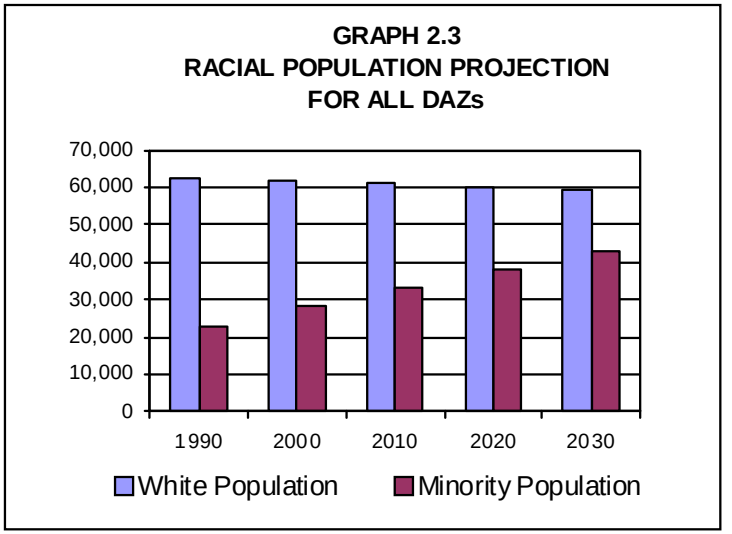


TABLE 2.4
1990 AND 2000 RACIAL POPULATION DATA BY DAZ

DAZ	WHITE POPULATION				MINORITY POPULATION			
	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE
A	1,396	1,370	- 26	- 1.9 %	638	922	284	44.5%
B	5,248	4,696	- 552	- 10.5 %	1,154	1,831	677	58.7%
C	5,400	4,644	- 756	- 14.0 %	1,873	2,264	391	20.9%
D	2,957	2,110	- 847	- 28.6 %	3,702	3,494	-208	-5.6%
E	2,708	3,592	884	32.6 %	295	580	285	96.6%
F	1,891	3,139	1,248	66.0 %	879	826	-53	-6.0%
G	4,357	4,473	116	2.7 %	107	251	144	134.6%
H	407	761	354	87.0 %	529	898	369	69.8%
I	4,036	3,374	- 662	- 16.4 %	1,034	1,642	608	58.8%
J	5,692	4,414	- 1,278	- 22.5 %	1,619	2,677	1,058	65.3%
K	3,026	1,883	- 1,143	- 37.8 %	6,176	6,272	96	1.6%
L	7,050	7,366	316	4.5 %	3,457	3,645	188	5.4%
M	5,756	5,687	- 69	- 1.2 %	678	1,335	657	96.9%
N	1,469	1,440	- 29	- 2.0 %	320	393	73	22.8%
O	1,438	1,458	20	1. 4 %	6	34	28	466.7%
P	8,416	9,251	835	9.9 %	384	715	331	86.2%
Q	1,486	2,258	772	52.0 %	214	280	66	30.8%
TOTAL	**62,733**	**61,916**	**- 817**	**- 1.3 %**	**23,065**	**28,059**	**4,994**	**21.7 %**

Source: 1990 and 2000 U.S. Census.

Regarding the age breakdown of the Texarkana area population, as shown in **Graph 2.4**, Texarkana's youth population (aged birth to 17 years) is nearly identical to the national percentage of 25.7% of the total population. Texarkana's adult population (18 to 59 years) of 56.2% of the population is less than the national percentage of 58% of the total population. Texarkana's senior population (60 years and above) of 17.5% is above the nation's senior population of 16.3%. In comparison with the states of Arkansas and Texas, Texarkana's youth percentage of 25.6% is less than Texas' youth percentage of 28.2%; Texarkana's adult percentage of 56.9% is less than Texas' adult percent of 58.5%. Texarkana's senior population of 17.5% is more than Texas' senior percentage of 13.3%. In contrast, Texarkana's senior percentage of 17.5% is less than Arkansas' senior percentage of 18.4%. Texas' population can be viewed as being "younger" than Texarkana's while Arkansas's population is viewed as being "older" than Texarkana's. Between 1990 and 2000, the youth and senior populations for the seventeen (17) DAZs experienced a decrease of approximately 2% over the ten (10)-year period while the adult population increased by nearly 11% during the same period as evidenced by **Table 2.5**.

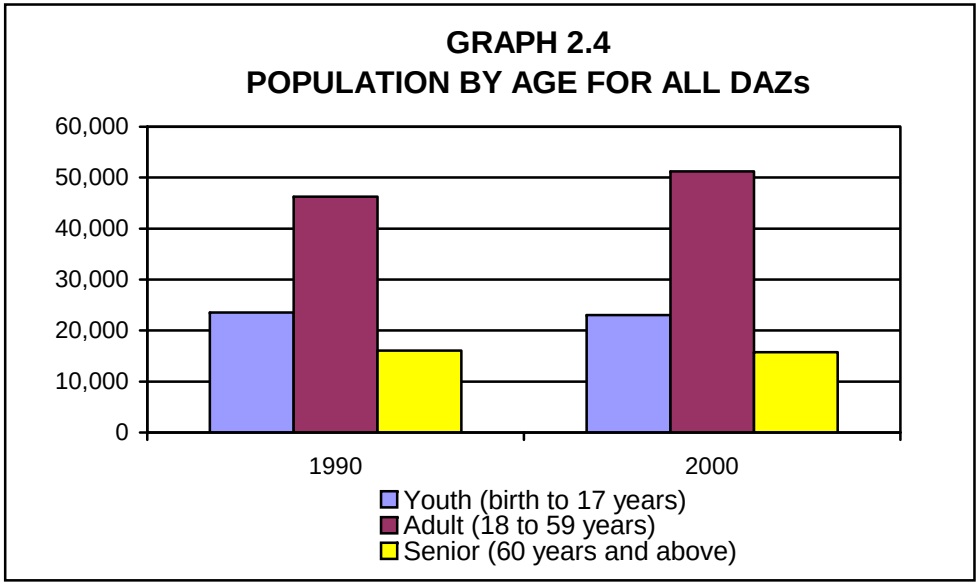


TABLE 2.5
1990 AND 2000 AGE POPULATION DATA BY DAZ

DAZ	YOUTH POPULATION (UNDER 18 YEARS OF AGE)				ADULT POPULATION (18 TO 59 YEARS)			
	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE
A	565	526	-39	-6.9%	1129	1491	362	32.1%
B	1,534	1,609	75	4.9%	3296	3667	371	11.3%
C	1,930	1,697	-233	-12.1%	4148	3871	-277	- 6.7 %
D	2,219	1,768	-451	-20.3%	3024	2792	-232	- 7.7 %
E	826	1,005	179	21.7%	1679	2506	827	49.3 %
F	800	1,087	287	35.9%	1436	2237	801	55.8 %
G	1,309	1,352	43	3.3%	2591	2723	132	5.1 %
H	199	148	-51	-25.6%	541	1310	769	142.1 %
I	1,186	1,284	98	8.3%	2394	2661	267	11.2 %
J	1,574	1,593	19	1.2%	3949	3992	43	1.1 %
K	2,936	2,669	-267	-9.1%	4228	4155	-73	- 1.7 %
L	2,651	2,422	-229	-8.6%	6225	6868	643	10.3 %
M	1,853	1,832	-21	-1.1%	3703	4091	388	10.5 %
N	475	477	2	0.4%	988	1087	99	10.0 %
O	404	379	-25	-6.2%	843	851	8	0.9 %
P	2,537	2,475	-62	-2.4%	5096	5408	312	6.1 %
Q	510	717	207	40.6%	982	1493	511	52.0 %
TOTAL	**23,508**	**23,040**	**-468**	**-2.0 %**	**46,252**	**51,203**	**4,951**	**10.7 %**

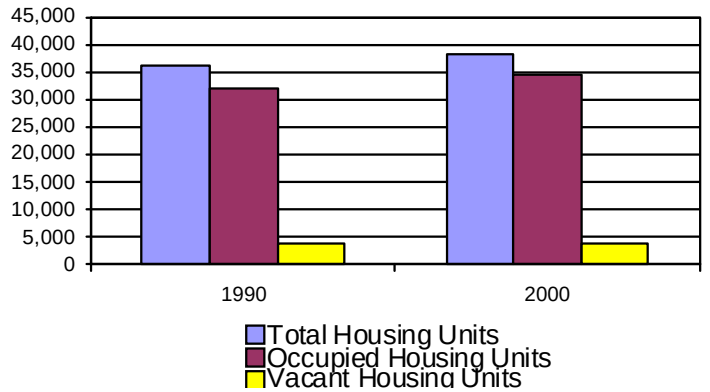
DAZ	SENIOR POPULATION (60 YEARS AND ABOVE)			
	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE
A	340	275	-65	-19.1%
B	1,572	1251	-321	-20.4%
C	1,195	1340	145	12.1%
D	1,416	1044	-372	-26.3%
E	498	661	163	32.7%
F	534	641	107	20.0%
G	564	649	85	15.1%
H	196	201	5	2.6%
I	1,490	1071	-419	-28.1%
J	1,788	1506	-282	-15.8%
K	2,038	1331	-707	-34.7%
L	1,631	1721	90	5.5%
M	878	1099	221	25.2%
N	326	269	-57	-17.5%
O	197	262	65	33.0%
P	1,167	2083	916	78.5%
Q	208	328	120	57.7%
TOTAL	**16,038**	**15,732**	**- 306**	**-1.9 %**

Source: 1990 and 2000 U.S. Census.

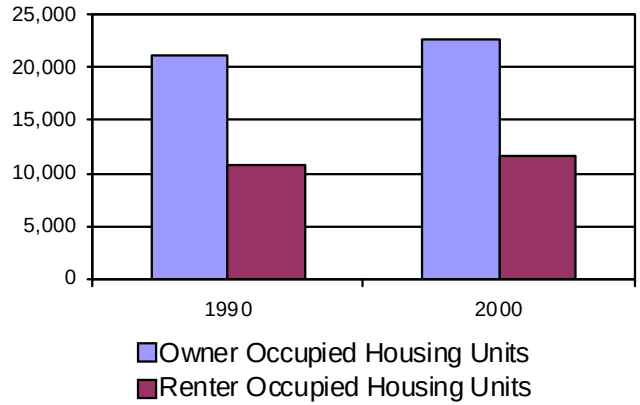
HOUSING DATA

Between 1990 and 2000, as shown in Table **2.6**, there was an increase of 2,079 dwelling units in the seventeen (17) DAZs from 36,147 dwellings units in 1990 to 38,226 in 2000, representing an increase of 5.8%. The percentage of occupied dwellings units increased by 6.9% from 32,309 to 34,309 dwelling units with a decrease of vacant dwelling units by 3.5% from 4,061 vacant units in 1990 to 3,917 vacant units in 2000. In regard to the proportion of the occupied dwelling units that are owner-occupied and renter-occupied, the relationship of the owner-occupied dwelling units remained at approximately two-thirds of the total units with one-third of the units being renter-occupied in both 1990 and 2000, as seen in **Graph 2.6**.

GRAPH 2.5
HOUSING UNITS FOR ALL DAZs



GRAPH 2.6
HOUSING UNITS BY OCCUPANCY



An analysis of the housing unit changes within the DAZs reveals that DAZ E, DAZ F and DAZ P had the greatest numerical increases between 1990 and 2000 being 710, 618 and 679 dwelling units, respectively. DAZ D and DAZ K had the most decreases in dwelling units. DAZ D (College Hill area) lost 316 dwelling units and DAZ K (Beverly/Rosehill/Falvey Industrial Park area) decreased by 600 units.

TABLE 2.6
1990 AND 2000 HOUSING DATA BY OCCUPANCY
(TOTAL AND OCCUPIED HOUSING UNITS)

DAZ	TOTAL HOUSING UNITS				OCCUPIED HOUSING UNITS			
	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE
A	806	738	-68	-8.4 %	696	620	-76	-10.9 %
B	3,110	3,123	13	4.2 %	2,713	2,738	25	0.9 %
C	3,138	3,224	86	2.7 %	2,825	2,865	40	1.4 %
D	2,703	2,387	-316	- 11.7 %	2,364	2,134	-230	-9.7 %
E	1,226	1,936	710	57.9 %	1,082	1,694	612	56.6 %
F	1,132	1,750	618	54.6 %	979	1,490	511	52.2 %
G	1,717	1,884	167	9.7 %	1,539	1,732	193	12.5 %
H	511	346	-295	- 57.7 %	370	276	-94	-25.4 %
I	2,285	2,258	-27	- 1.2 %	2,033	2,025	-8	-0.4 %
J	3,619	3,534	-85	-2.3 %	3,252	3,228	-24	-0.7 %
K	4,299	3,699	-600	-14.0 %	3,450	3,128	-322	-9.3 %
L	3,671	3,931	260	7.1 %	3,383	3,576	193	5.7 %
M	2,634	3,028	394	15.0 %	2,411	2,796	385	16.0 %
N	815	842	27	3.3 %	730	742	12	1.6 %
O	536	598	62	11.6 %	516	561	45	8.7 %
P	3,328	4,007	679	20.4 %	3,163	3,794	631	19.9 %
Q	617	941	324	52.5 %	580	910	330	56.9 %
TOTAL	**36,147**	**38,226**	**2,079**	**5.8 %**	**32,086**	**34,309**	**2,223**	**6.9 %**

Source: 1990 and 2000 U.S. Census.

TABLE 2.7
1990 AND 2000 HOUSING DATA BY OCCUPANCY
(OWNER- OCCUPIED AND RENTER OCCUPIED HOUSING UNITS)

DAZ	OWNER-OCCUPIED HOUSING UNITS				RENTER-OCCUPIED HOUSING UNITS			
	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE
A	392	316	-76	-19.4 %	304	304	0	0 %
B	1,583	1,566	-17	-1.1 %	1,130	1,172	42	3.7 %
C	1,749	1,806	57	3.3 %	1,076	1,059	-17	-1.6 %
D	1,347	1,100	-247	-18.3 %	1,017	1,034	17	1.7 %
E	896	1,193	297	33.1 %	186	501	315	169.4 %
F	777	1,245	468	60.2 %	202	245	43	21.3 %
G	1,296	1,468	172	13.3 %	243	264	21	8.6 %
H	140	120	-20	-14.3 %	230	156	-74	-32.2 %
I	1,138	1,081	-57	-5.0 %	895	944	49	5.5 %
J	1,708	1,594	-114	-6.7 %	1,544	1,634	90	5.8 %
K	1,824	1,442	-382	-20.9 %	1,626	1,686	60	3.7 %
L	2,636	2,743	107	4.1 %	747	833	86	10.3 %
M	1,770	2,050	280	15.8 %	641	746	105	16.4 %
N	538	514	-24	-4.5 %	192	228	36	18.8 %
O	442	483	41	9.3 %	74	78	4	5.4 %
P	2,470	3,017	547	22.1 %	693	777	84	12.1 %
Q	507	845	338	66.7 %	73	65	-8	-11.0 %
TOTAL	**21,213**	**22,583**	**1,370**	**6.5 %**	**10,873**	**11,726**	**853**	**7.8 %**

Source: 1990 and 2000 U.S. Census.

TABLE 2.8
1990 AND 2000 HOUSING DATA BY OCCUPANCY
(VACANT HOUSING UNITS)

DAZ	VACANT HOUSING UNITS			
	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE
A	110	118	8	7.3 %
B	397	385	-12	-3.0 %
C	313	359	46	14.7 %
D	339	253	-86	-25.4 %
E	144	242	98	68.1 %
F	153	260	107	69.9 %
G	178	152	-26	-14.6 %
H	141	70	-71	-50.4 %
I	252	233	-19	-7.5 %
J	367	306	-61	-16.6 %
K	849	571	-278	-32.7 %
L	288	355	67	23.3 %
M	223	232	9	4.0 %
N	85	100	15	17.6 %
O	20	37	17	85.0 %
P	165	213	48	29.1 %
Q	37	31	-6	-16.2 %
TOTAL	**4,061**	**3,917**	**-144**	**-3.5 %**

Source: 1990 and 2000 U.S. Census.

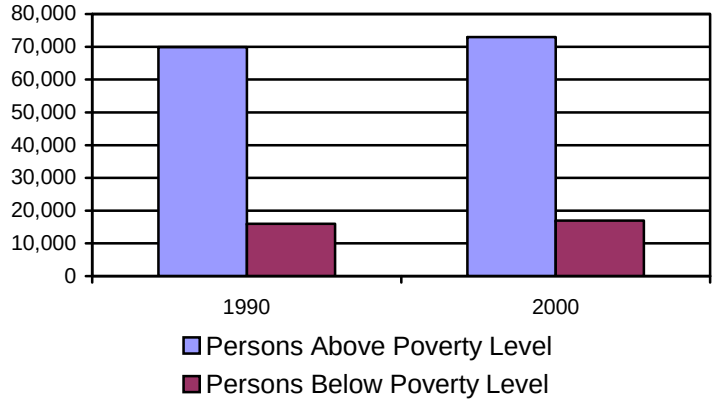
INCOME DATA

According to the U.S. Census Bureau, the 1999 median household income for the jurisdictions in the Texarkana metropolitan area is as follows:

Miller County, Arkansas	$ 30,951
Texarkana, Arkansas	$ 31,343
Bowie County, Texas	$ 33,001
Nash, Texas	$ 27,614
Red Lick, Texas	$ 57,045
Texarkana, Texas	$ 29,727
Wake Village, Texas	$ 39,961

It is not possible to determine the 1999 median household income for each of the seventeen (17) DAZs because most of the DAZs contain more than one census block group and you cannot average median incomes of several census block groups to determine a median household income for a DAZ.

GRAPH 2.7
PERSONS BY POVERTY LEVEL
FOR ALL DAZs



Poverty level income in 1990 and 2000 has been calculated for each DAZ as shown in **Table 2.9**. From 1990 to 2000, there was a slight increase in the percentage of persons living in poverty from 18.6% to 18.8%. The actual number of persons below the poverty limit in 1990 was 15,976 and in 2000 this number had increased by 979 persons to 16,955. DAZ E (area west of SH 245) and DAZ Q (Pleasant Grove and Red Lick areas) experienced significant population increases while the number of persons below the poverty limit declined in these high-income areas. DAZ I (Highland Park area to I-30) and DAZ J (Spring Lake Park and Central Mall area to U.S. 59 [Jarvis Parkway]) had decreases in population from 1990 to 2000 while having significant increases in the number of persons below the poverty limit.

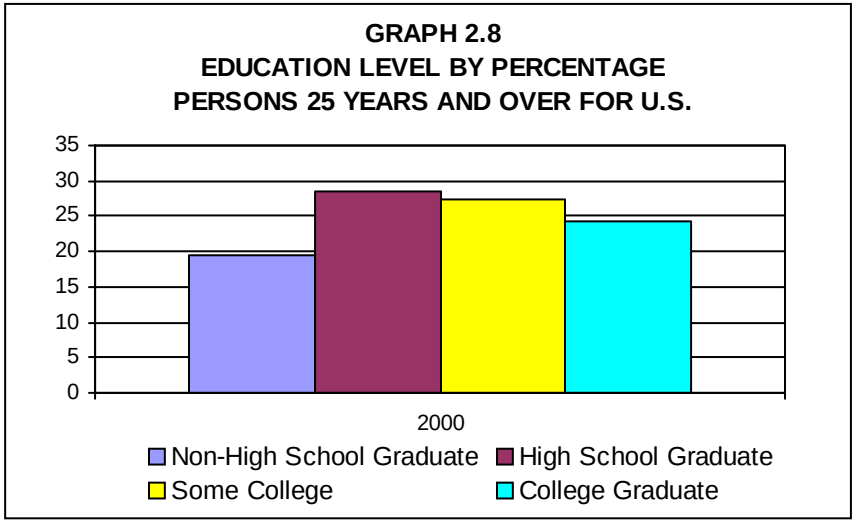
TABLE 2.9
1990 AND 2000 POVERTY LEVEL INCOME DATA

DAZ	PERSONS BELOW POVERTY LEVEL				PERCENT PERSONS BELOW POVERTY LEVEL		
	1990	2000	1990 TO 2000 CHANGE	1990 TO 2000 PERCENT CHANGE	1990	2000	1990 TO 2000 PERCENT CHANGE
A	704	667	-37	-15.9%	34.6%	29.1%	-15.9%
B	1,163	1,018	-145	-14.1%	18.2%	15.6%	-14.1%
C	979	1,049	70	12.8%	13.5%	15.2%	12.8%
D	2,726	2,131	-595	-7.1%	40.9%	38.0%	-7.1%
E	681	669	-12	-29.3%	22.7%	16.0%	-29.3%
F	452	555	103	-14.2%	16.3%	14.0%	-14.2%
G	567	735	168	22.5%	12.7%	15.6%	22.5%
H	254	436	182	-3.2%	27.1%	26.3%	-3.2%
I	614	1,010	396	66.3%	12.1%	20.1%	66.3%
J	913	1,642	729	85.4%	12.5%	23.2%	85.4%
K	3,689	3,349	-340	2.4%	40.1%	41.1%	2.4%
L	1,987	1,990	3	-4.4%	18.9%	18.1%	-4.4%
M	631	739	108	7.3%	9.8%	10.5%	7.3%
N	266	288	22	5.7%	14.9%	15.7%	5.7%
O	40	118	78	185.5%	2.8%	7.9%	185.5%
P	168	448	280	135.5%	1.9%	4.5%	135.5%
Q	142	111	-31	-47.6%	8.4%	4.4%	-47.6%
TOTAL	**15,976**	**16,955**	**979**	**1.2 %**	**18.6 %**	**18.8 %**	**1.2 %**

Source: 1990 and 2000 U.S. Census.

EDUCATIONAL DATA

An analysis of the educational level of persons aged twenty-five (25) and over for all seventeen (17) DAZs in the year 2000 reveals that 22.6% do not have a high school diploma (or its equivalency); 31.5% had a high school diploma (or its equivalency); 28.7% had some college, and 17.2% were college graduates. In comparison to the national average, 19.6% do not have a high school diploma (or its equivalency); 28.6% had a high school diploma (or its equivalency); 27.4% had some college, and 24.4% were college graduates. It should be noted that the Texarkana metropolitan area [all seventeen (17) DAZs] had a substantially higher percentage of persons who do not have a high school diploma or its equivalency, that being, 22.6% compared to the national average of 19.6%. The other significant difference was the Texarkana metropolitan area having only 17.2% college graduates compared to the national average of 24.4%.



In regard to the individual cities' educational levels compared to the national average, the data shows that Texarkana, Texas and Nash are near the national average for non-high school graduates, high school graduates and combining college graduates and those with some college. Red Lick and Wake Village have significantly lower percentages of persons who are non-high school graduates and high school graduates and higher percentages of persons who have some college and who are college graduates. Texarkana, Arkansas has a higher percentage than the national average for non-high school graduates and high school graduates and has a significantly lower percentage of college graduates.

Between 1990 and 2000, there were appreciable improvements in the numbers of persons within each of the educational levels. In 1990, there were 15,961 persons who were non-high school graduates but by 2000 the number decreased to 13,178 non-high school graduates, representing a decrease of over 17% since 1990. Likewise, the number of high school graduates (or equivalency) had increased by 13% from 16,229 to 18,361 persons. Those persons with some college increased from 14,085 in 1990 to 16,749 persons, an increase of nearly 19%. The number of college graduates increased by over 26%, from 7,933 in 1990 to 10,047 persons by 2000.

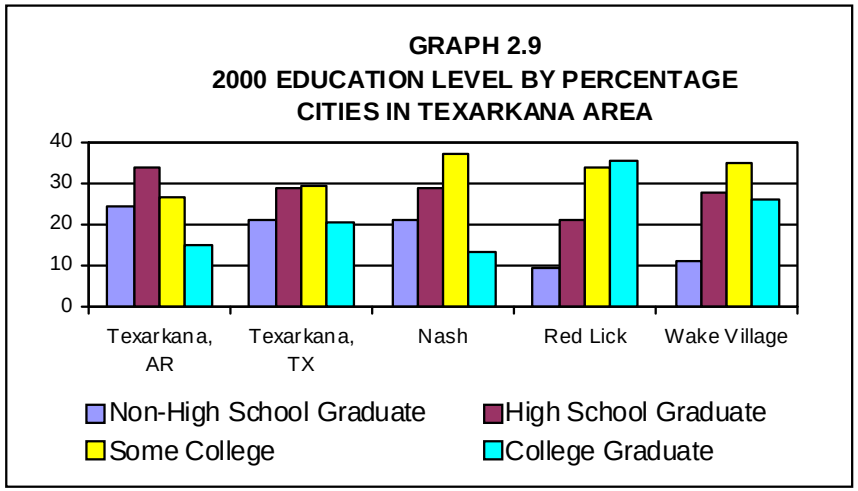


TABLE 2.10
1990 AND 2000 EDUCATION DATA

DAZ	1990 EDUCATION DATA				2000 EDUCATION DATA			
	NON-HS GRAD	HS GRAD	SOME COLLEGE	COLLEGE GRAD	NON-HS GRAD	HS GRAD	SOME COLLEGE	COLLEGE GRAD
A	631	346	168	49	572	448	320	66
B	1,257	1,274	1,301	451	1,023	1,397	1,225	583
C	945	1,525	1,165	1,024	828	1,496	1,332	915
D	1,823	1,270	613	166	1,261	1,230	651	142
E	682	678	378	138	570	965	748	452
F	624	640	312	113	515	986	580	458
G	1,022	919	529	141	779	1,157	841	315
H	307	167	118	36	562	365	174	56
I	861	948	887	722	699	904	1,028	649
J	1,097	1,357	1,349	1,172	632	1,397	1,679	820
K	2,506	1,500	1,100	266	1,696	1,687	943	247
L	2,147	2,050	1,929	691	2,231	2,642	2,066	643
M	700	1,410	1,153	673	567	1,289	1,542	1,125
N	338	412	355	90	261	394	362	118
O	181	330	379	98	180	297	305	208
P	658	1,182	2,037	1,775	597	1,405	2,435	2,585
Q	182	221	312	328	205	302	518	665
TOTAL	**15,961**	**16,229**	**14,085**	**7,933**	**13,178**	**18,361**	**16,749**	**10,047**

Source: 1990 and 2000 U.S. Census.

EMPLOYMENT DATA

Between 1990 and 2000, the Texarkana metropolitan area's employment level increased by 1,349 persons from 35,620 to 36,969. This 3.8% increase over the ten (10)-year period equals an average increase of 135 persons per year. The number of unemployed persons also increased from 2,767 in 1990 to 2,941 in 2000. The unemployment rate increased from 7.2% in 1990 to 7.5% in 2000. In 1990, DAZs D and K had unemployment rates of 12.4% and 15.1%, respectively. These rates were substantially higher than that experienced by the other fifteen (15) DAZs. In 2000, four (4) DAZs had double-digit unemployment rates, those being DAZ A (14.9%); DAZ D (12.3%); DAZ I (12.1%); and DAZ K (21.7%). Between 1990 and 2000, the number of employed persons increased by over 600 for DAZs E and F. The number of employed persons decreased by 700 in DAZ K, the largest decrease recorded in the study area.

GRAPH 2.10
EMPLOYMENT DATA FOR ALL DAZS

TABLE 2.11
1990 AND 2000 EMPLOYMENT DATA BY DAZ

DAZ	1990 EMPLOYMENT DATA			2000 EMPLOYMENT DATA		
	PERSONS EMPLOYED	PERSONS UNEMPLOYED	PERCENT UNEMPLOYED	PERSONS EMPLOYED	PERSONS UNEMPLOYED	PERCENT UNEMPLOYED
A	635	43	6.3%	572	100	14.9%
B	2,709	197	6.8%	2,863	237	7.5%
C	3,459	182	5.0%	3,238	174	5.1%
D	2,132	301	12.4%	1,734	244	12.3%
E	1,257	97	7.2%	1,918	112	5.5%
F	1,228	107	8.0%	1,833	111	5.7%
G	1,804	163	8.3%	2,061	70	3.3%
H	327	32	8.9%	346	23	6.2%
I	1,922	138	6.8%	2,086	287	12.1%
J	3,447	181	5.0%	3,141	214	7.9%
K	2,864	508	15.1%	2,182	606	21.7%
L	3,729	323	8.0%	4,061	274	6.3%
M	3,278	162	4.7%	3,596	158	4.2%
N	870	66	7.1%	776	65	7.7%
O	726	57	7.3%	701	52	6.9%
P	4,374	160	3.5%	4,728	184	3.7%
Q	859	50	5.5%	1,133	30	2.6%
TOTAL	**35,620**	**2,767**	**7.2 %**	**36,969**	**2,941**	**7.5 %**

Source: 1990 and 2000 U.S. Census.

MEANS OF TRANSPORTATION DATA

It is evident from reviewing the vehicle ownership data for the years 1990 and 2000 that the Texarkana area has a significant number of households that have either no vehicle or only one (1) vehicle available to meet the family's transportation needs. In 1990, over three thousand households, or nearly 10% of all households, did not own any vehicle. By 2000, the number of households without a vehicle had increased to 3,515. In 1990, 36% of households had only one (1) vehicle available for their transportation needs. By 2000, 42% of households had only one (1) vehicle available. From 1990 to 2000, the number of households with two (2) or more vehicles decreased significantly from 17,239 to 13,485. It is obvious from the number of households with no vehicles available that there is a notable percentage of households in the Texarkana area that need the availability of public transportation to meet their transportation needs since they do not have their own private vehicle.

Between 1990 and 2000, the percentage of persons driving alone to work increased from nearly 80% to 84%. The number of persons driving alone in 1990 was 28,031 and in 2000 the number of persons driving alone increased to 30,653. Those carpooling decreased from 5,328 in 1990 to 4,237 in 2000. In the Texarkana area, driving alone to work is the overwhelming means of travel to work and that trend increased from 1990 to 2000. Since the T-Line transit system started operating in October 2001, its effect on means of travel to work since the 2000 census is not reflected in the data presented above.

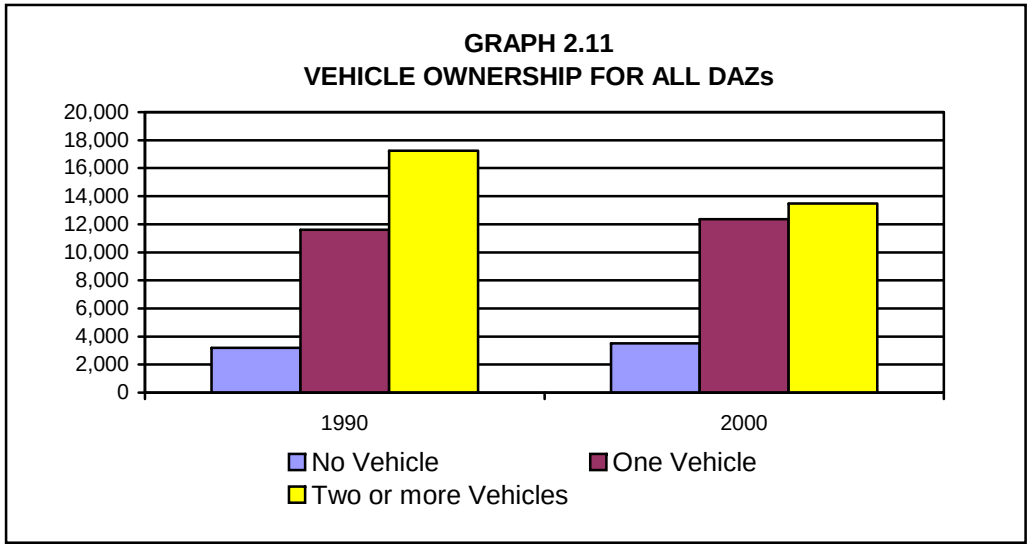


TABLE 2.12
1990 AND 2000 VEHICLE OWNERSHIP DATA BY DAZ

DAZ	1990 VEHICLE OWNERSHIP DATA			2000 VEHICLE OWNERSHIP DATA		
	NO VEHICLE	ONE VEHICLE	TWO OR MORE VEHICLES	NO VEHICLE	ONE VEHICLE	TWO OR MORE VEHICLES
A	140	317	250	71	309	178
B	262	1,123	1,328	272	1,147	1,098
C	241	1,041	1,533	210	1,095	1,095
D	521	897	952	473	877	604
E	43	332	674	69	582	762
F	105	242	623	89	481	598
G	54	420	1,054	68	483	869
H	53	201	117	74	157	32
I	120	999	913	263	919	657
J	165	1,535	1,577	395	1,348	1,152
K	889	1,395	1,168	879	1,235	825
L	339	1,088	1,950	278	1,224	1,384
M	95	759	1,540	155	975	1,263
N	52	323	380	58	314	279
O	22	126	383	16	129	297
P	66	693	2,366	135	901	1,922
Q	20	119	431	10	177	470
TOTAL	**3,187**	**11,610**	**17,239**	**3,515**	**12,353**	**13,485**

Source: 1990 and 2000 U.S. Census.

TABLE 2.13
1990 MEANS OF TRANSPORTATION DATA BY DAZ

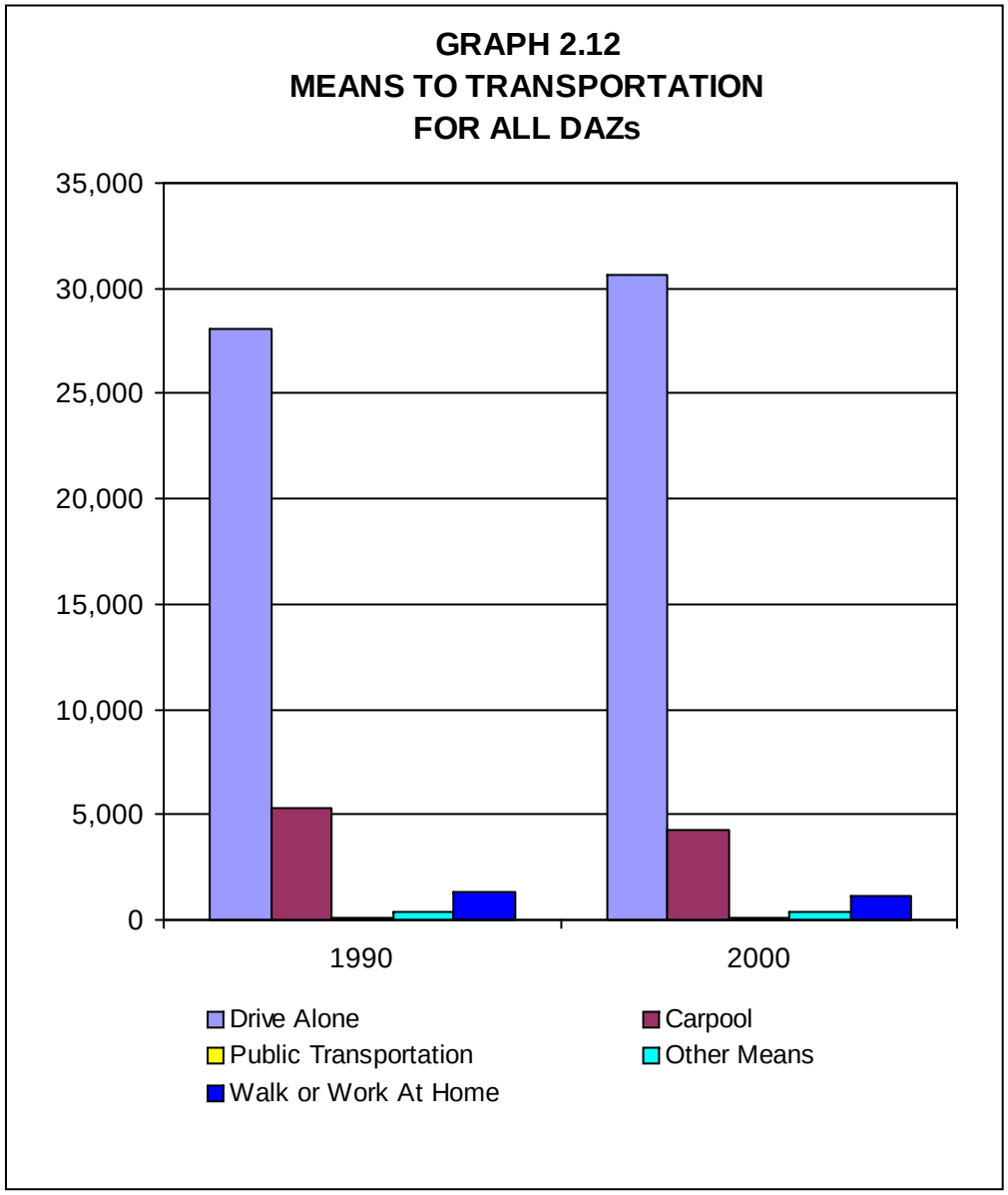
DAZ	DRIVE ALONE	CARPOOL	PUBLIC TRANSPORTATION	OTHER MEANS	WALKED OR WORKED AT HOME	PERCENT DRIVE ALONE
A	489	103	11	6	19	77.9%
B	2,227	302	22	0	153	82.4%
C	2,782	509	0	57	35	82.2%
D	1,686	271	8	37	82	80.9%
E	966	188	0	7	82	77.7%
F	984	193	0	17	29	80.5%
G	1,420	279	0	0	64	80.5%
H	216	59	0	17	25	68.1%
I	1,521	283	0	0	76	80.9%
J	2,784	501	6	18	104	81.6%
K	1,787	806	19	34	180	63.2%
L	2,737	662	7	53	187	75.1%
M	2,615	478	0	52	96	80.7%
N	674	123	2	21	36	78.7%
O	571	115	0	7	16	80.5%
P	3,870	371	0	17	91	89.0%
Q	702	85	0	9	49	83.1%
TOTAL	**28,031**	**5,328**	**75**	**352**	**1,324**	**79.8 %**

Source: 1990 U.S. Census.

TABLE 2.14
2000 MEANS OF TRANSPORTATION DATA BY DAZ

DAZ	DRIVE ALONE	CARPOOL	PUBLIC TRANSPORTATION	OTHER MEANS	WALKED OR WORKED AT HOME	PERCENT DRIVE ALONE
A	411	114	0	4	25	74.2%
B	2,359	359	15	19	91	83.0%
C	2,830	259	0	15	68	89.2%
D	1,305	308	5	54	28	76.8%
E	1,686	193	0	7	12	88.8%
F	1,544	186	11	25	16	86.6%
G	1,795	187	0	7	38	88.6%
H	142	147	0	0	31	44.4%
I	1,641	270	34	0	100	80.2%
J	2,654	307	5	30	117	85.3%
K	1,481	439	8	71	142	69.2%
L	3,297	501	0	73	94	83.2%
M	3,078	385	0	8	93	86.4%
N	626	103	5	13	12	82.5%
O	613	63	0	5	19	87.6%
P	4,210	288	0	18	210	89.1%
Q	981	128	0	0	20	86.9%
TOTAL	**30,653**	**4,237**	**83**	**349**	**1,116**	**84.1 %**

Source: 2000 U.S. Census.


GRAPH 2.12
MEANS TO TRANSPORTATION
FOR ALL DAZs
35,000
30,000
25,000
20,000
15,000
10,000
5,000
0
1990
2000
Drive Alone
Carpool
Public Transportation
Other Means
Walk or Work At Home

3 ENVIRONMENTAL ISSUES

3 ENVIRONMENTAL ISSUES

Each generation is obligated to the next to attain the most beneficial use of the environment without destroying, disrupting or greatly changing it in any way. Certain environmental issues are directly affected by transportation, or affect transportation. The objective in addressing environmental issues is to minimize impacts on our natural environment while maintaining the economic health of the region. Planning efforts are generally broad in scope, while environmental concerns are usually addressed at specific locations as transportation projects are developed. Below are six (6) categories of environmental issues that deserve particular attention during the planning process.

WETLANDS

Wetlands serve an important role in the local ecosystem. They provide habitat for migratory birds, fish, amphibians, and plants as well as help control floods and erosion.

In 1977, the U.S. Fish and Wildlife Service began the National Wetlands Inventory to classify and map Americas remaining wetlands. The National Wetlands Inventory classifies wetlands by soils, hydrology, and vegetation. Wetlands are considered transitional lands between land and water systems. The water table is usually at or near the surface, or the land may be covered by shallow water. To be classified as a wetland, an area must support predominantly hydrophilic vegetation, a relatively undrained, hydric soil, or be inundated or saturated with water at least some time during the growing season every year.

It is estimated that sixteen (16) million acres of bottomland hardwood and other forested wetlands existed in Texas prior to its being settled. This estimate was based on the acreage of geologic floodplains in Texas (Kier et al., 1977) and assumes that all or most of these floodplains were originally forested. According to a 1980 Texas Parks and Wildlife (TPWD) report, forested wetlands inventoried by Landsat totaled approximately 6,068,000 acres in 1980, including 5,973,000 acres of bottomland hardwood and other forested riparian vegetation and 95,000 acres of swamps. A

comparison of these estimates indicates a 63% loss of original bottomland hardwoods. There was an estimated 175,000 acres of bottomland hardwood and riparian vegetation in the Sulphur River geographic area in 1980 (Frye, 1987).

In 1986, the Texas A&M University Remote Sensing Center completed a land use change detection study for the TPWD that covered eleven (11) regions of Texas. The results of this study indicated that within the vicinity of the Middle Sulphur River, there was a 9% decline in combined upland and bottomland hardwood vegetation between 1973 and 1981. The same study showed that clear-cut forests resulting from ongoing commercial timber industry practices increased by as much as 64% from 1974 to 1983.

The U.S. Forest Service's Status and Trends Survey (Miller and Hartsell, 1992) indicated that bottomland hardwood forest acreage in Texas had actually increased by 249,000 acres since 1986. It is believed that the increase can be attributed to reversion of abandoned agricultural land and mixed pine-hardwood stands to bottomland hardwood forests. However, there is not enough evidence to verify a change in the long-term decline.

Future declines in bottomland hardwoods are expected from other land use changes such as the creation of additional water supply reservoirs. The Texas Water Development Board (TWDB) projects the need for fourteen (14) new major surface water supply reservoirs through the year 2040 (TWDB, 1990). According to the TPWD, if thirteen (13) of the fourteen (14) proposed reservoirs are constructed, there will be a total of 36,106 acres of bottomland hardwoods and riparian areas lost statewide but principally concentrated within the East Texas river systems.

In the transportation planning and construction process, environmental issues must be addressed to insure minimal adverse impacts. Under Section 404 of the Clean Water Act, the U.S. Army Corps of Engineers (COE) has jurisdiction over waters in the U.S. and is the designated agency that issues permits for the discharge of dredged or fill material into waters of the U.S. Before issuing a permit, the Corps of Engineers solicits input from other government resource agencies such as the EPA, the U.S. Fish and Wildlife Service, Arkansas Fish and Game Commission, Arkansas Department of Environmental Quality, TPWD, and the Texas Commission on Environmental Quality. The COE uses three (3) measures to lessen environmental impact to wetlands:

Avoidance: Whenever possible, move the preferred location of the project to an alternate upland area to avoid wetland impacts.

Minimization: If there is no reasonable alternate path, the project needs to be designed to minimize adverse environmental impacts. An example is restricting heavy equipment to only the areas of the wetland that will be filled.

Compensation: Compensate for wetland impacts by creating new wetlands or preserving wetland areas in the vicinity of the impacts.

From a transportation construction standpoint, building a project in or through wetlands is not only costly and time consuming in terms of environmental assessment and permitting, but is also expensive because of the additional engineering required to stabilize roads or bridges. For these reasons, construction through designated wetlands needs to be avoided when possible.

Texarkana is bounded by the Red River to the north and east, and the Sulphur River to the south. There are significant wetlands/bottomland areas along these two waterways. Two (2) major north/south arterials in Texarkana, US 59 and US 71, cross both of these rivers. The east/west arterials, US 82 and IH 30, as well as the north/south arterial, US 67, cross minor creeks and drainages (See **Map 3.1**). Other wetland areas are scattered throughout the Texarkana area and generally occur adjacent to ponds, creeks, and tributaries.

ENDANGERED SPECIES

Louisiana Dept. of Wildlife & Fisheries

In establishing the Endangered Species Act (ESA) of 1973, the U.S. Congress recognized that many wildlife and plant species had already been rendered extinct by human-related activities. It also recognized that many additional species were so depleted in numbers that they were in danger of becoming extinct. Congress determined that these species were of aesthetic, ecological, educational, recreational and scientific value to the public. In response, the ESA was passed with the stated purpose of conserving these threatened or endangered species and the ecosystems upon which they depend.

There are three (3) Federal listed endangered species and two (2) Federal listed threatened species for the Texarkana area. According to the Arkansas Ecological Services Field Office in Conway, Arkansas, the only Federal listed endangered species in Miller County, as of December 5, 2007, is the Interior Least Tern. There are no Federal listed threatened species listed in Miller County. According to the Texas Parks and Wildlife Department, as of May 4, 2009, Bowie County has three (3) Federal listed endangered species and two (2) threatened species. Federal listed endangered species are the Interior Least Tern, Red Wolf and American Burying Beetle and Federal listed threatened species are the Piping Plover and Black Bear (due to field characteristics similar to the Louisiana Black Bear).

Louisiana Black Bear: The Louisiana black bear is a subspecies of the American black bear that primarily live in bottomland hardwood and floodplain forests. However, it is considered a habitat generalist and often spends winters in hollow cypress trees along sloughs, lakes, or rivers in bottomland habitats. Although their range includes Mississippi, Louisiana, and eastern Texas, there have been no known sightings of the Louisiana black bear in the Texarkana area.

Louisiana black bear populations have declined because of habitat loss and the U.S. Fish and Wildlife Service listed the Louisiana black bear as a "threatened" species in 1992. Much of the species habitat has been flooded by reservoir construction and converted to agricultural areas or housing developments. There are, however, efforts under way to provide suitable habitat for the Louisiana black bear in its historical range. These efforts include preventing further habitat fragmentation, establishment of corridors between existing fragmented habitat, and the restoration of forests.

Interior Least Tern: The Interior least tern is the smallest member of the tern family and was placed on the endangered list May 28, 1985. Least terns nest in small colonies on exposed salt flats, river sandbars, gravel pits or lake and reservoir beaches. Dams, reservoirs, and other changes to river systems have eliminated most historic least tern habitat. The wide channels dotted with sandbars that are preferred by the terns have been replaced by narrow forested river corridors. Overgrowth of brush and trees also eliminated remaining habitat. Recreational activities on rivers and sandbars disturb the nesting terns, causing them to abandon their nests. Primary recovery tasks for interior least tern populations include determining population trends and habitat requirements, increasing breeding populations, and developing public awareness of the needs of least terns through educational programs. The Interior least tern nests on sand bars of the Red River. There have been sightings of terns west of Texarkana near Paris, TX, but none in the vicinity of Texarkana.

Source: mobirding.com

Red Wolf: The Red Wolf is now highly endangered although it once roamed throughout the Southeastern U.S. Its natural range extends from Florida to Texas. Some believe its original distribution was from New York in the east to Florida in the south and Texas in the southwest. Its historical habitats included forests, swamps and coastal plains. There are thought to be 300 red wolves remaining in the world with 207 of those in captivity. The Red Wolf is intermediate in size between the coyote and Gray Wolf. It lives in an extended family unit. A breeding pair of Red Wolves will typically have one litter of one (1) to ten (10) pups per year born in March or April. They usually hunt at night, dawn and dusk and usually feed alone on rabbits, rats and muskrats. Red Wolf populations in North Carolina feed on rabbits, raccoons and white-tailed deer. Since 1987 efforts have been made to reintroduce Red Wolves into the wild in North Carolina, Mississippi (later moved due to likelihood of encounters with humans), Florida, and into the Great Smokey Mountains National Park (later relocated to North Carolina).

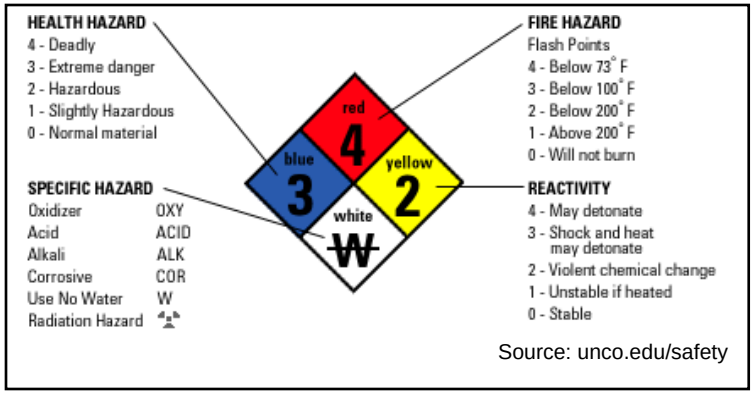
Piping Plover: The Piping Plover is a small sand-colored, sparrow sized shorebird that nests and feeds along coastal and bayside mud or salt flats and on sand and gravel beaches in North America. In 1986, Piping Plover populations in the Northern Great Plains and Atlantic Coast were declared a threatened species and the Great Lakes population was declared endangered. They eat insects, marine worms and crustaceans. It is a wintering migrant along the Texas Gulf Coast, southern Atlantic Coast and the West Indies. They begin migrating north in mid-March and their breeding grounds extend from southern Newfoundland to the northern parts of South Carolina. Migration south begins in August and ends in September. Total population is estimated at 6,410 birds with the population increasing since 1991. Female birds prepare the nest as early as mid to late April. Sometimes four (4) nest attempts are made during each mating season. The first nest usually having four (4) eggs while the subsequent nests will usually have two (2) or three (3) eggs. For each nest, the females lay one (1) egg every other day.

American Burying Beetle: The American Burying Beetle is a member of the carrion beetle family and is an important part of a host of scavengers responsible for recycling decaying materials back into the ecosystem. Currently it is found in eight states including Arkansas and Texas, although originally it lived in thirty-five (35) states and three (3) provinces of Canada. It has been on the Federal endangered species lists since August 1989. The specific habitat requirements are unknown but availability of carrion may be the most important factor. The beetle is nocturnal and is a strong flier, moving as far as a kilometer in a night. During winter months, with temperatures below sixty (60) degrees, beetles bury themselves in the soil. The beetles are unusual in that both males and females take part in raising the young, and they typically reproduce only once and have a life span of one (1) year.

American Bald Eagle: On June 28, 2007 the U.S. Department of the Interior removed the Bald Eagle from the Federal List of Endangered and Threatened Wildlife and Plants. The Bald Eagle is still protected by the Migratory Bird Treaty Act and the Bald and Golden Eagle Protection Act. The Bald and Golden Eagle Protection Act prohibits the taking, transporting, selling, bartering, trading, importing or exporting, and the possession of eagles, making it illegal for anyone to collect eagles and eagle parts, nests, or eggs without a permit. Possession of a feather or other body parts of a Bald Eagle is a felony with a fine of up to $10,000 and/or imprisonment. The bald eagle is the only eagle that is unique to North America. Bald Eagles are known to winter on Wright Patman Lake, southwest of Texarkana. There could also be possible occurrences along the Sulphur River, south of the city in the Sulphur River Wildlife Management Area.

HAZARDOUS MATERIALS

Hazardous material contamination has become a major concern when planning future transportation projects. Urban areas are problematic with regards to this issue. If overlooked, Leaking Petroleum Storage Tank (LPST) sites and federal/state Superfund sites can cause problems for transportation planners. It is important to avoid these sites in the planning phase of development because of the increased costs and liability associated with constructing projects through these sites.



NOISE ISSUES

Comprehensive planning and coordination should be accomplished as early as possible in the project development process to ensure that comparative analyses of all transportation alternatives includes serious consideration for minimizing or avoiding traffic noise impacts. This could reduce or eliminate the need for costly abatement later in the design process.

AIR QUALITY

Air Quality is a major concern for all of us. It can affect our health as well as our environment. Most modes of transportation contribute to air pollution with the main culprit being ground level ozone. Ozone occurs naturally in the upper atmosphere and helps protect us from harmful ultraviolet radiation. However, ground level ozone in large concentrations can have a negative effect on the human environment. It can aggravate chronic lung conditions and cause headaches, nausea, and eye and throat irritation.

Currently both Texarkana, Texas (Bowie County), and Texarkana, Arkansas (Miller County), are in attainment of the National Ambient Air Quality Standards (NAAQS) for ground level ozone and it is unlikely that they will go non-attainment in the near future.

GLOBAL WARMING (CLIMATE CHANGE)

Global warming or as it is more often referred to now, climate change, has become a major political issue. At the time this plan was being developed, the United States House of Representatives had recently passed the American Clean energy and Security Act of 2009 (ACES), known generally as cap-and-trade. The topic has also been addressed in the

House Transportation and Infrastructure Committee's draft federal transportation bill, the Clean Low-Emissions Affordable New Transportation Equity Act (CLEAN-TEA).

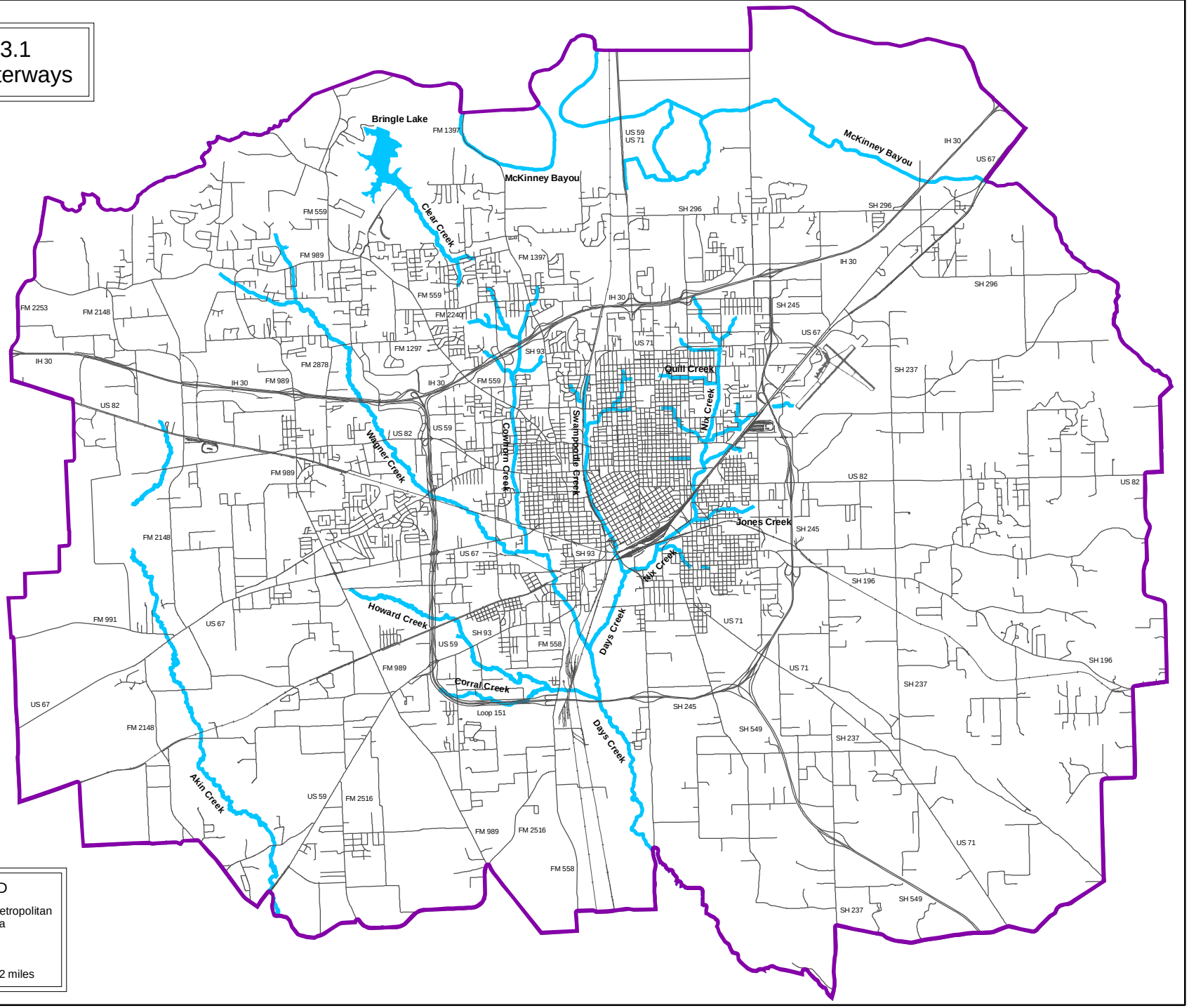
The ongoing debate over global warming legislation could result in new requirements for the transportation sector. The legislation will most likely result in significantly increasing the cost of infrastructure, mobility and housing. Whether global warming is caused by human activity (anthropogenic) or not, engineering standards will adapt with advancements in science. Therefore, the design and construction of our infrastructure will adapt to better address the threats from severe weather and its long-term impacts.

PLANNING CONSIDERATIONS

While current versions of legislation being considered in Washington DC would not require Urban MPOs such as ours to implement a program addressing greenhouse gas (GHG) emissions it is likely that the regulations will be expanded in the future. A recent report developed by Cambridge Systematics, Inc. titled "Moving Cooler an Analysis of Transportation Strategies for Reducing Greenhouse Gas Emissions" assessed the potential effectiveness of a broad variety of strategies to reduce GHG emissions. The Texarkana MPO has identified the following actions from the Cambridge Systematics report that may satisfy GHG emissions regulations while minimizing potential negative impacts to the regions economic growth:

- Invest in infrastructure to expand transportation services
- Identify and reduce areas experiencing unacceptable levels of congestion
- Improve traffic flow across the system
- Increase transit system level of service by improving efficiency and adding capacity
- Invest in non-motorized system facilities for bicycles and pedestrians
- Improve operations through the deployment of intelligent transportation system (ITS) components
- Identify and implement strategies to improve the movement of freight into, through and out of the region.

Map 3.1
Area Waterways



LEGEND

- Texarkana Metropolitan Planning Area
- Waterways

Scale: 1 inch = 2 miles

4 OPERATIONS AND MANAGEMENT

4 OPERATIONS & MANAGEMENT

Operations & Management (O&M) is an integrated approach to optimize the performance of existing and programmed infrastructure through the implementation of multimodal, intermodal, and often cross-jurisdictional systems, services, and projects.[1] O&M functions are primarily concerned with addressing congestion and safety.

The cost of congestion in the United States is estimated to exceed $ 87 billion annually.[2] With the cost of highway construction continuing to increase, building more roads is only part of the solution. In fact, leading researchers recommend using a balanced and diversified approach to addressing congestion. A mixture of programs, policies and projects, in line with a regions funding, commitment, location and type of problems, is the best approach. While the Texarkana region may not experience the same level of congestion as larger areas, it can still be very disruptive to the local economy and our daily lives. The 2030 Committee Texas Transportation Needs Report estimates that solving the congestion problems in the state's urban regions would generate more than $ 6.50 in economic benefits for every $ 1.00 spent on the effort.[3]

With 43,000 deaths occurring on our nations highways each year, the equivalent of two Boeing 747-400 jetliners with 416 passengers crashing every week with no survivors, safety is an issue that everyone should be concerned about.[4] In fact, safety is addressed at every phase of delivering a project from planning to design to maintenance. There are many opportunities within Operations & Management to address safety. Whether by increasing the visibility of signs, improving sight distance, or correcting driver behavior with traffic calming devices, the end result is a reduction in the frequency of something going wrong or in the severity of the consequences when it does go wrong.

Federal legislation requires MPOs to integrate O&M into the transportation planning process. SAFETEA-LU also requires that O&M be included in a regions transportation goals and objectives.

---

1 Management & Operations in the Metropolitan Transportation Plan: A Guidebook for Creating an Objectives-Driven, Performance-Based Approach. U.S. Department of Transportation and Federal Highway Administration. November 2007. Report No. FHWA-HOP-08-007.

2 Urban Mobility Report 2009. Texas Transportation Institute, Texas A&M University System, College Station, Texas. July 2009. Available: http://tti.tamu.edu/documents/mobility_report_2009_wappx.pdf

3 2030 Committee Texas Transportation Needs Report. Texas 2030 Committee, Austin, Texas. February 2009. Available: http://texas2030committee.tamu.edu/

4 Incorporating Crash Costs into Highway Cost Analysis. Ray, Malcom H. and Conron, Christine E. September 2009. Association of American State Highway and Transportation Officials – Value Engineering Conference, San Diego, CA.

O&M GOALS

The following goals have been identified for the operation and management of the regional transportation system:

1. Improve the performance of the existing transportation system in order to relieve congestion and
2. Maximize the safety and mobility of people and goods.

O&M STRATEGIES

The following strategies will be implemented to address operations and management in the Texarkana region:

- Build a strong linkage between planning and operations
- Increase regional partnerships among managers with responsibility for the daily operations of the transportation system, and
- Improve regional decision making and planning by considering increased investments in operations related activities/projects.

REALISTIC SOLUTIONS

Small urban areas like Texarkana can expect some level of congestion and some number of safety issues to occur. However, programs can be implemented, policies can be adopted, and projects can be completed that will allow us to manage these challenges more effectively. The key is to identify solutions and funding sources that meet the needs and goals for our region.

Improve the Existing System

There are several relatively low cost, strategies that can be deployed to improve the existing transportation system. The list includes improving incident response (removing disabled vehicles from the road), improved signal timing and signal coordination, improved intersection design, and adding short sections of roadway. These programs require innovation and continued monitoring, but they pay off in a more efficient, safer and more reliable transportation system.

Add Capacity

As an area experiences growth, the increase in personal trips and freight movements must be accommodated. Often this means adding more travel lanes to existing roads or building new roads. Key corridors in a region can greatly benefit from an expanded roadway network, especially when combined with an expansion of public transportation services.

Change Usage Patterns

It is possible to significantly reduce the level of congestion an area experiences by individuals and small groups of people making small changes in their current travel routine. Most of the recurring congestion in the Texarkana area lasts for a relatively short period of time. This means that if a small percentage of the roadway users voluntarily shifted the time of their trip out of the "rush", it could make a noticeable improvement for certain locations and corridors.

Provide Choices

The modern day American lifestyle is based on choice. A greater number of choices in both routes and modes would allow travelers and shippers to customize their travel plans. Expanding transit services and providing safe areas for people to bicycle and walk would give individuals the option to use a different mode of travel. Adding new roads and bridges to the existing system provides alternate, if not more direct, routes for people to choose from.

Diversified Development

Many regions are encouraging denser development with a mix of retail, entertainment, and residential property. This type of development generally results in a shorter trip to access goods or services which means people may choose to walk or bike rather than drive.

IMPLEMENTATION APPROACH

The Texarkana MPO will increase the linkage between planning and operations through partnerships and improved decision making within the following nine (9) functional areas identified by the USDOT:

- Transportation Planning Process
- Data Sharing
- Performance Measures
- Institutional Arrangements
- Regional ITS Architecture Update
- Regional Concept for Transportation Operations
- Funding and Resource Sharing
- Congestion Management Systems, and
- Regional Transportation System Management & Operations Projects[5]

[5] Getting More by Working Together: Opportunities for Linking Planning and Operations – A Reference Manual. U.S. Department of Transportation and Federal Highway Administration. November 2004.

It is proposed to take advantage of as many of these opportunities as possible by implementing the Regional Concept for Transportation Operations (RCTO) within the transportation planning process (TPP).

Linking the various operational functions to the TPP could be accomplished in four (4) phases. Phase I would involve the creation of the Texarkana Regional Operations & Management Panel (TROMP), by engaging operating agencies and other stakeholders at the regional level. Phase II would involve the development of goals and objectives by the TROMP through a series of discussions and workshops. In Phase III, the TROMP would identify performance measures, and the data needed to support them. These performance measures would be used to evaluate progress toward the goals and objectives. Phase IV would employ various methods in an ongoing process of identifying areas that need to be addressed and developing recommendations from the TROMP that would be considered for implementation by participants.

Opportunities in the areas of data sharing, institutional arrangements, the regional ITS architecture, identification of regional operations and management projects and funding and resource sharing could all be identified and implemented through recommendations from the TROMP.

Potential Members

It is proposed that initial membership of the TROMP consist of managers and decision makers from local and State transportation agencies responsible for day-to-day operations, the MPO, and public safety entities such as the Office of Emergency Management.

Areas of Opportunity

Non-recurring Incidents

Since the majority of congestion is caused by non-recurring incidents, i.e. crashes, breakdowns, weather events, etc., it makes sense to address these factors in the O&M areas by identifying available data and strategies to address each one, thereby improving the overall O&M of the transportation system.

The Texarkana Office of Emergency Management (OEM) is responsible for developing, maintaining and implementing a comprehensive emergency management plan which is in full compliance with all state and Federal guidelines and requirements. The emergency management staff is also charged with responsibility for Homeland Security issues at the local level.

The objectives of the emergency management program are to protect public health and safety and preserve public and private property from the effects of hazardous events. OEM has the primary role of identifying and mitigating hazards, preparing for, responding to, and managing the recovery from emergency situations that affect the community.

We, as individual citizens and as a united community, have a responsibility to prepare ourselves and our families to cope with emergency situations and manage our affairs and property in ways that will aid the government in managing emergencies and assisting those who cannot help themselves. The OEM assists the citizenry in carrying out these responsibilities by providing public information and instructions prior to and during emergency situations.

Traffic Signal Improvements

One of the components of the transportation system that offers an opportunity to address both congestion and safety is traffic signals. Recent projects by TxDOT resulted in the installation of signals at new locations, the upgrade of signals at existing locations and the removal of signals at locations where they were no longer warranted. These types of activities could be pursued on a regional basis with cooperative efforts to cross over the multiple jurisdictional boundaries that exist in our area.

In contrast to many other roadway improvements, traffic signal improvements generally involve only minimal traffic disruption, relatively low costs, and little risk. The public generally reacts very favorably to traffic signal retiming projects, making them win-win situations for both the public agency and their customers. The FHWA estimates that the overall benefit-to-cost ratio of traffic signal timing optimization projects approaches 40 to 1. That is, for every $ 1 invested in optimizing the timing of traffic signals, $ 40 is returned to the public in time and fuel savings. Traffic signal operations can be substantially improved by implementing an aggressive yet relatively low-cost management system that will minimize traffic delay, pollution and fuel consumption.

Intelligent Transportation System

An Intelligent Transportation System (ITS) is considered a principle strategy for improving the management and operation of the transportation system. The term “intelligent transportation system” means electronic communications, or information processing used to improve the efficiency or safety of surface transportation.

In November 2002, Kimley-Horn and Associates, Inc., under contract to TxDOT – Atlanta District, began the process of developing the State of Texas Regional ITS Architecture and Deployment Plans – Atlanta Region.[6] The final plan was

[6] “State of Texas Regional ITS Architecture and Deployment Plans – Atlanta Region”, Texas Department of Transportation, November 7, 2003.

delivered to TxDOT in November, 2003. The stakeholders in this plan include: AHTD, Ark-Tex Council of Governments (ATCOG), 911 Services, the Cities of Atlanta, Marshall, and Texarkana, TX-AR, the Texarkana MPO, Texas Department of Public Safety (DPS), FHWA, Louisiana Department of Transportation and Development, TUTD, TxDOT-Atlanta District, and TxDOT Traffic Operations Division (Austin). This plan outlines the deployment plan for implementing the various components of an ITS system for the Atlanta Region, which encompasses the Texarkana MPO study area.

The Atlanta District already had video detection systems operating at several intersections and a CCTV camera in place at one location that is used to monitor fog levels and help determine when it is advisable to close a particular facility to traffic. Video detection capabilities continue to be expanded as existing traffic signals are upgraded and signals are installed at new locations. Other ITS components currently in use in the region include a Road Weather Information System (RWIS) station that collects road weather data and multiple Smart Curves that provide advance warning to drivers. Computer aided dispatch systems are being utilized by the Texas DPS and area emergency responders.

http://www.rte.ie/news/2009/0415/justice.html

There were three levels of market packages identified for implementation. A market package is an ITS service, including the systems or equipment as well as the agency or agencies involved in managing the service. The market packages were categorized into high, medium and low priorities by the stakeholders. The stakeholders identified thirty-seven (37) market packages as being applicable to the Atlanta Region. Some of the high priority market packages include Network Surveillance, Regional Traffic Control, Incident Management System, Transit Vehicle Tracking and Emergency Response. It should be noted that the prioritizations are not directly related to a deployment timeframe of some number of years, but are based on the ability to deliver a particular service or functionality. Copies of the plan can be obtained by contacting the Traffic Operations Division of TxDOT in Austin.

5 ROADS AND BRIDGES

5 ROADS AND BRIDGES

ROAD PERFORMANCE

The *TUTS 2035 PLAN* identifies roadway widening and new roadway projects that will be needed as the region's population grows and today's undeveloped areas become residential, business and commercial centers. In order to identify roadway improvements needed through 2035, a roadway "congestion" analysis was conducted. The congestion analysis includes a level of service (LOS) analysis, a volume per lane evaluation, and an analysis of travel time and travel speeds of the surface transportation system.

Traffic Forecasting and Level of Service

The capacity of a transportation facility reflects its ability to accommodate a moving stream of people or vehicles. It is a measure of the supply side of transportation facilities. Level of Service (LOS) is a measure of the quality of flow for streets and highways. Capacity and LOS estimates are needed for most traffic engineering and transportation planning decisions and actions. The basic data needed to determine the capacity and LOS of a transportation facility is the traffic count, the number of vehicles using the system on a daily basis and the geometrics of the facility, its size – number of lanes, shoulders, median characteristics and so forth.

Within the Texarkana metropolitan area, the Texarkana MPO has been conducting traffic counts on various roadways since 2001. In addition, AHTD and TxDOT have conducted traffic counts on a periodic basis in this area. These traffic counts have been utilized to establish the LOS along freeways and roadways in the Texarkana area. TxDOT and AHTD have maintained a database of traffic counts reaching back as far as 1970. Each department forecasted future traffic on the state highway systems using the linear regression methodology.

In applying the linear regression methodology for forecasting traffic, the traffic count data for a section of roadway is analyzed to see how well it follows a predictable pattern of growth over time. The more stable the growth over time, the more reliable the forecast can be. In many cases, growth on major facilities has remained stable over time and we can predict, with a fair amount of confidence, the expected traffic volumes in the future. With a linear regression model, future traffic is predicted to grow at the historical growth rate. While it is realized that there are

many factors which influence traffic growth, it is expected that over the long term, growth will occur at a constant rate. The geometric components of each section of roadway are then reviewed to identify the number of lanes, existence of a median and/or shoulders, etc. The capacity of the transportation facility is limited to a large degree by its size. For example, a four-lane roadway with a flush median has more capacity than an undivided two-lane roadway with shoulders.

A roadway's capacity is also defined by the type of traffic served or its functional classification. For example, the function of a freeway is to serve mobility needs; the function of a neighborhood street is to serve access needs. Users of both types of facilities have different expectations of how much traffic can be accommodated before the LOS deteriorates noticeably.

By combining the traffic volume forecast and capacity of a particular roadway along with its functional classification and adjacent development patterns, the expected LOS for that roadway can be estimated. Average Annual Daily Traffic (AADT) volumes were used in these projections. **Table 5.1** - Level of Service (LOS) for Highway Facilities, has been derived in accordance with the Highway Capacity manual. All transportation facilities, both in Arkansas and Texas, were analyzed for LOS based on this table. **Graph 5.1** is a sample Data Summary Sheet for IH 30 west of US 59 (Jarvis Parkway) to demonstrate the level of analysis conducted in determining the LOS for each facility on the state highway system.

The concept of LOS uses qualitative measures that characterize operational conditions within a traffic stream and their perception by motorists and passengers. The descriptions of individual LOS characterize these conditions in terms of such factors as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Five (5) levels-of-service are defined for each type of facility for which analysis procedures are available. They are given letter designations, from A to E; with LOS A representing the best operating conditions and LOS E the worst. Each LOS represents a range of operating conditions. The following general statements apply to arterial LOS:

- LOS A describes a free-flow condition at average travel speeds. The ability to maneuver in the traffic stream is virtually unrestricted. Delay at signalized intersections is limited to that induced by the need for the signal installation.

- LOS B describes a primarily free-flow condition at average travel speeds. The ability to maneuver in the traffic stream is only slightly restricted. Delay at signalized intersections is minimal and not bothersome.

- LOS C represents stable operations with restricted maneuverability. The ability to change lanes in mid-block locations may be more restricted. Average speeds decline and delay at signals is induced by queues that may not clear.

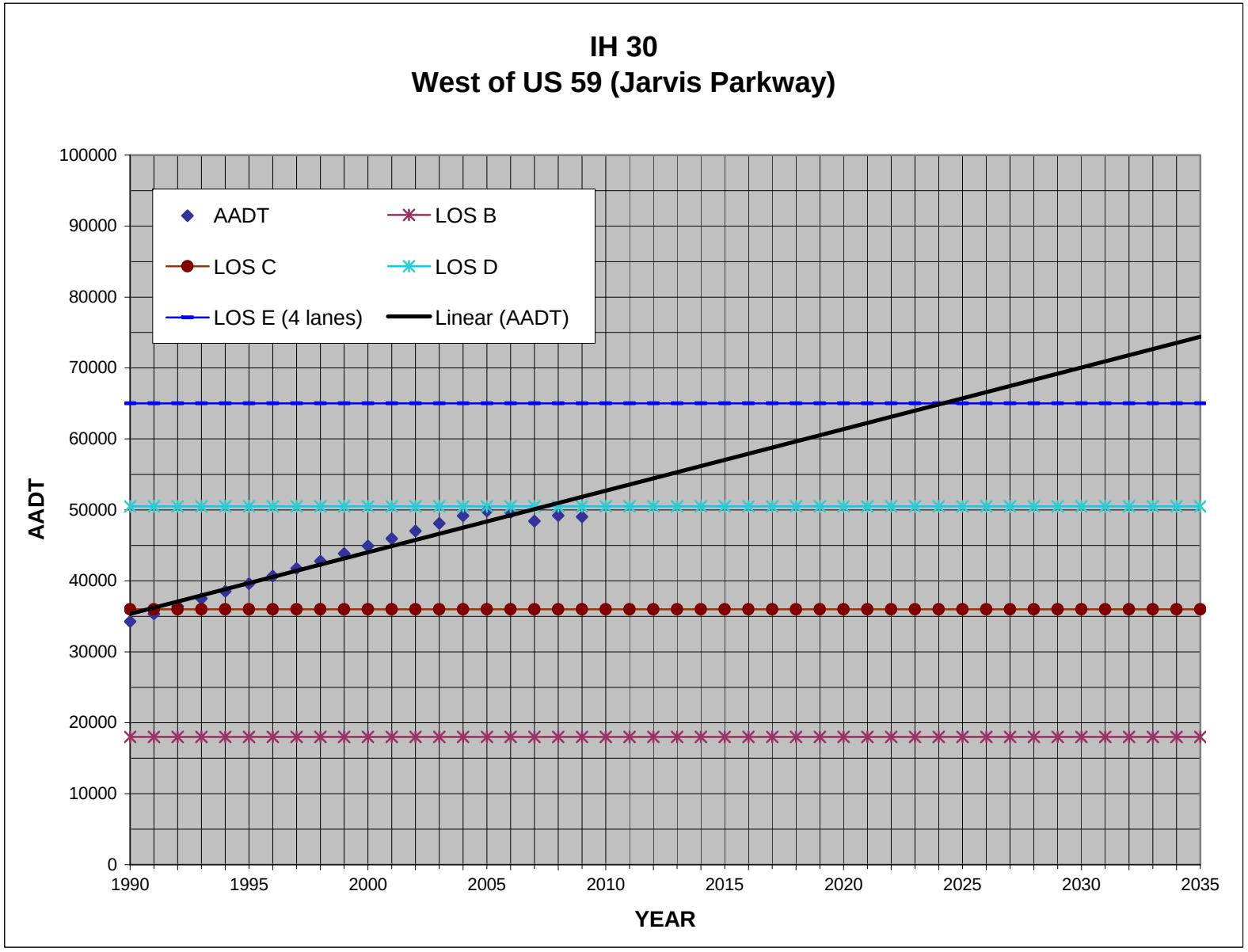
- LOS D borders on a range where small increases in flow may cause substantial increases in approach delay and decreases in speed. LOS D may be due to adverse signal progression, excessive access drives, inappropriate signal timing, high volumes, or some combination of these factors. Lane changing becomes very restricted and extended queues may develop at signals.

- LOS E is characterized by significant delays and average speeds that are one-third the free-flow speed or less. Such operations are caused by some combination of adverse progression, high signal density, high volumes, extensive delays at critical intersections, and inappropriate signal timing.

Table 5.1 Level of Service (LOS) for Highway Facilities

Highway Type	Urban or Rural	Functional Class	Number of Lanes	LOS A	LOS B	LOS C	LOS D	LOS E
1	Urban	Freeway	4	0 – 18,000	18,001 – 36,000	36,001 – 50,500	50,501 – 65,000	> 65,000
			6	0 – 27,000	27,001 – 54,000	54,001 – 75,500	75,501 – 97,000	> 97,000
			8	0 – 36,500	36,501 – 73,000	73,001 – 101,500	101,501 – 130,000	> 130,000
2	Urban	Divided Arterial	4	0 – 6,500	6,501 – 13,000	13,001 – 17,500	17,501 – 22,000	> 22,000
			6	0 – 9,500	9,501 – 19,000	19,001 – 26,000	26,001 – 33,000	> 33,000
3	Urban	Undivided Arterial	2	0 – 3,000	3,001 – 6,000	6,001 – 8,500	8,501 – 11,000	> 11,000
			4	0 – 5,500	5,501 – 11,000	11,001 – 15,000	15,001 – 19,000	> 19,000
			6	0 – 8,000	8,001 – 16,000	16,001 – 22,500	22,501 – 29,000	> 29,000
7	Urban	Collector	2	0 – 2,000	2,001 – 4,000	4,001 – 6,000	6,001 – 8,000	> 8,000
			4	0 – 4,500	4,501 – 9,000	9,001 – 12,500	12,501 – 16,000	> 16,000
4	Rural	Freeway	4	0 – 11,500	11,501 – 23,000	23,001 – 29,000	29,001 – 35,000	> 35,000
			6	0 – 17,500	17,501 – 35,000	35,001 – 48,500	48,501 – 62,000	> 62,000
5	Rural	Divided Arterial	4	0 – 10,000	10,001 – 20,000	20,001 – 27,500	27,501 – 35,000	> 35,000
			6	0 – 14,500	14,501 – 29,000	29,001 – 40,500	40,501 – 52,000	> 52,000
6	Rural	Undivided Arterial	2	0 – 2,000	2,001 – 4,000	4,001 – 7,500	7,501 – 11,000	> 11,000
			4	0 – 8,000	8,001 – 16,000	16,001 – 22,000	22,001 – 28,000	> 28,000
			6	0 – 11,500	11,501 – 23,000	23,001 – 32,000	32,001 – 41,000	> 41,000
8	Rural	Collector	2	0 – 2,000	2,001 – 4,000	4,001 – 6,000	6,001 – 8,000	> 8,000
			4	0 – 4,500	4,501 – 9,000	9,001 – 12,500	12,501 – 16,000	> 16,000

Graph 5.1 – SAMPLE LOS FORM



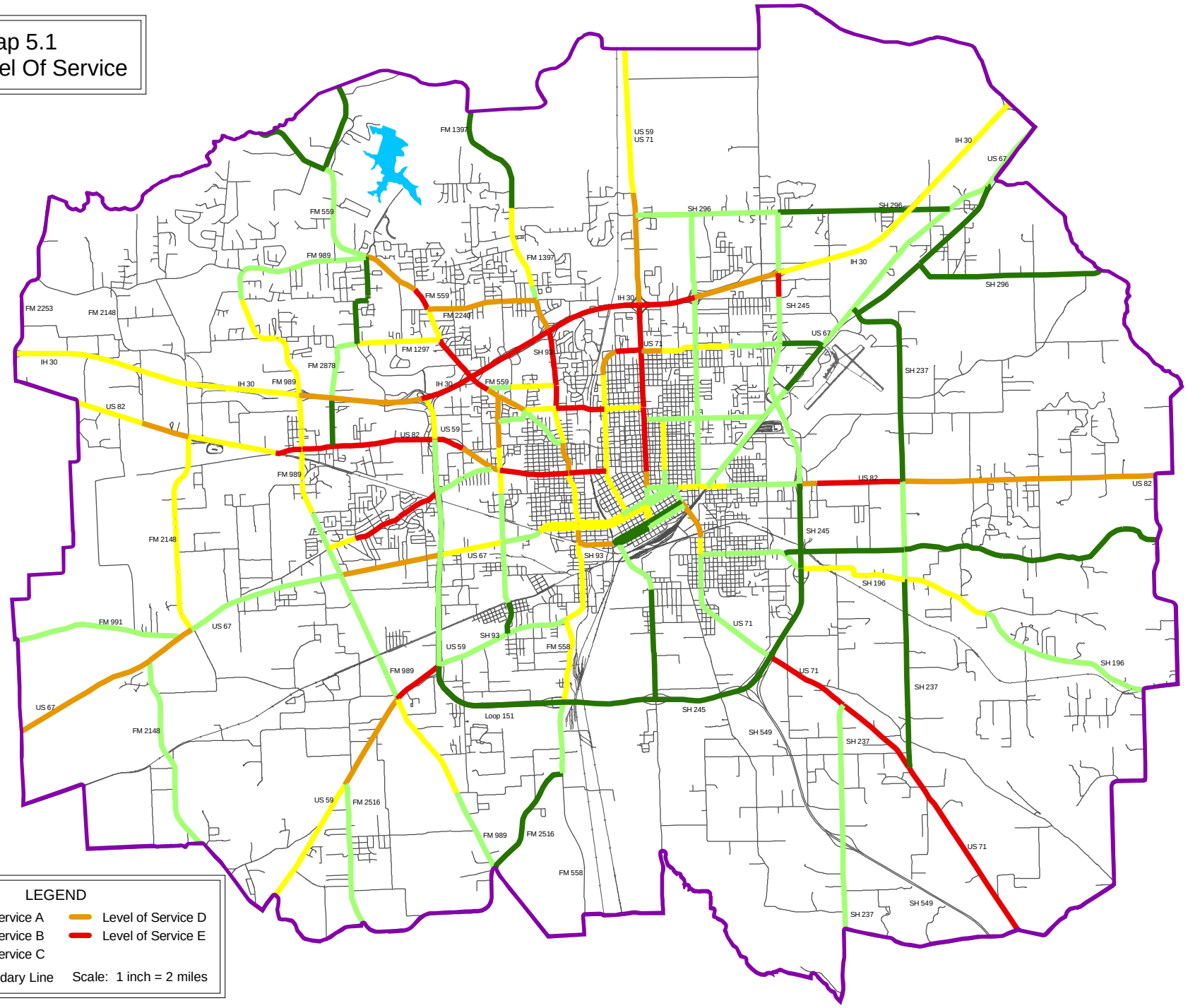
The Level of Service prior to 2005 for the freeways and major roadways is presented in **Map 5.1** – 2004 Level of Service. The roadways with the worst congestion (LOS E) prior to 2005 are described as follows:

1. US 71 (East Street) from the MPO boundary to SH 245.
2. US 82 (East 9th Street) from Cooper Tire Road, east of SH 245, to SH 237 (Rondo Road).
3. SH 245 from IH 30 to north of Arkansas Boulevard.
4. US 71 (State Line Avenue) from IH 30 to East 12th Street.
5. IH 30 from Jefferson Avenue to US 59 (Jarvis Parkway).
6. Loop 14 (Texas Boulevard) from US 71 (State Line Avenue) to Elizabeth Street.
7. College Drive from Loop 14 (Texas Boulevard) to SH 93 (Summerhill Road).
8. SH 93 (Summerhill Road) from IH 30 to College Drive.
9. US 82 (New Boston Road) from Loop 14 (Texas Boulevard) to North Robison Road.
10. US 82 (New Boston Road) from Kenwood Road to west of FM 989 (Kings Highway).
11. Redwater Road from US 59 (Jarvis Parkway) to Loma Lynda Drive.
12. FM 559 (Richmond Road) from IH 30 to FM 1297 (McKnight Road).
13. FM 559 (Richmond Road) from FM 2240 (Moores Lane) to Airline Drive.
14. US 59 (Lake Drive) from US 59 (Jarvis Parkway) to FM 989 (Kings Highway).

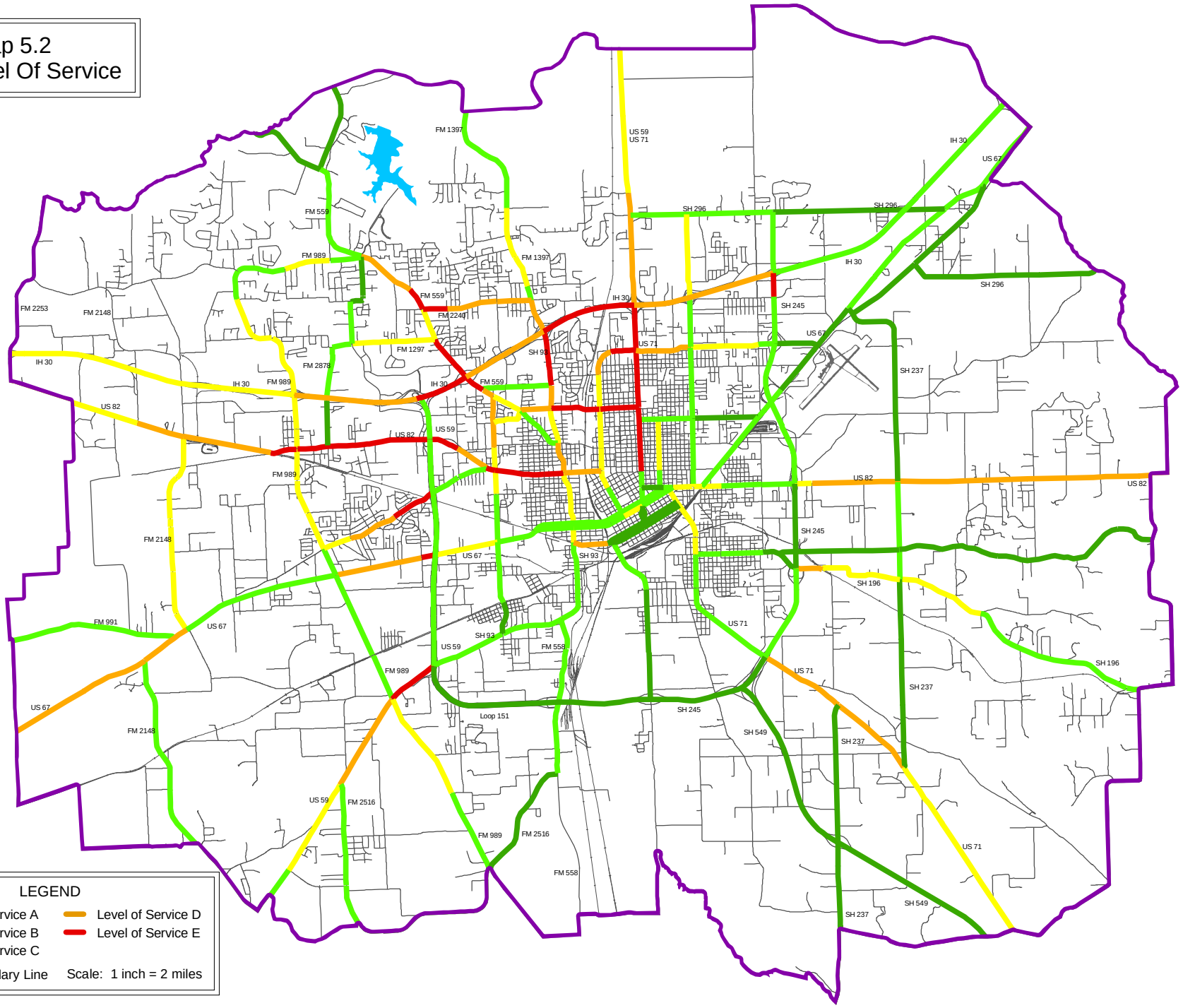
Based on traffic counts between 2005 and 2009, **Map 5.2** – 2009 Level of Service reveals the following roadway sections in red with the worst congestion (LOS E):

1. SH 245 from IH 30 to north of Arkansas Boulevard.
2. US 71 (State Line Avenue) from IH 30 to East 12th Street.
3. Loop 14 (Texas Boulevard) from US 71 (State Line Avenue) to Elizabeth Street.
4. College Drive from US 71 (State Line Avenue) to SH 93 (Summerhill Road).
5. SH 93 (Summerhill Road) from IH 30 to Kennedy Lane.
6. IH 30 from US 71 (State Line Avenue) to SH 93 (Summerhill Road).
7. IH 30 from FM 559 (Richmond Road) to US 59 (Jarvis Parkway).
8. FM 559 (Richmond Road) from IH 30 to FM 1297 (McKnight Road).
9. FM 559 (Richmond Road) from FM 2240 (Moores Lane) to Airline Drive.
10. FM 2240 (Moores Lane) from FM 559 (Richmond Road) to Robin Lane.
11. US 82 (New Boston Road) from Kenwood Road to west of FM 989 (Kings Highway).
12. US 82 (New Boston Road) from SH 93 (Summerhill Road) to North Robison Road.
13. Redwater Road from US 59 (Jarvis Parkway) to Burma Road.
14. US 67 (West 7th Street) from US 59 (Jarvis Parkway) to Wake Village Road.
15. US 59 (Lake Drive) from US 59 (Jarvis Parkway) to FM 989 (Kings Highway).

Map 5.1
2004 Level Of Service



Map 5.2
2009 Level Of Service



LEGEND

- Level of Service A
- Level of Service B
- Level of Service C
- Level of Service D
- Level of Service E
- MPO Boundary Line

Scale: 1 inch = 2 miles

This page left intentionally blank.

There were several locations identified below of notable decreases in traffic volumes between 2005 and 2009. These decreases may be attributable to one or more factors including the significant increase in the price of gasoline during that time span, a nationwide reduction in vehicle miles traveled (VMT), and construction throughout the region, including the IH 30 corridor. The locations with traffic congestion decreases include:

1. IH 30 from SH 93 (Summerhill Road) to FM 989 (Richmond Road).
2. US 82 (New Boston Road) for Loop 14 (Texas Boulevard) to SH 93 (Summerhill Road).
3. SH 93 (Summerhill Road) from Kennedy Lane to College Drive.
4. Redwater Road from Burma Road to Loma Lynda Drive.

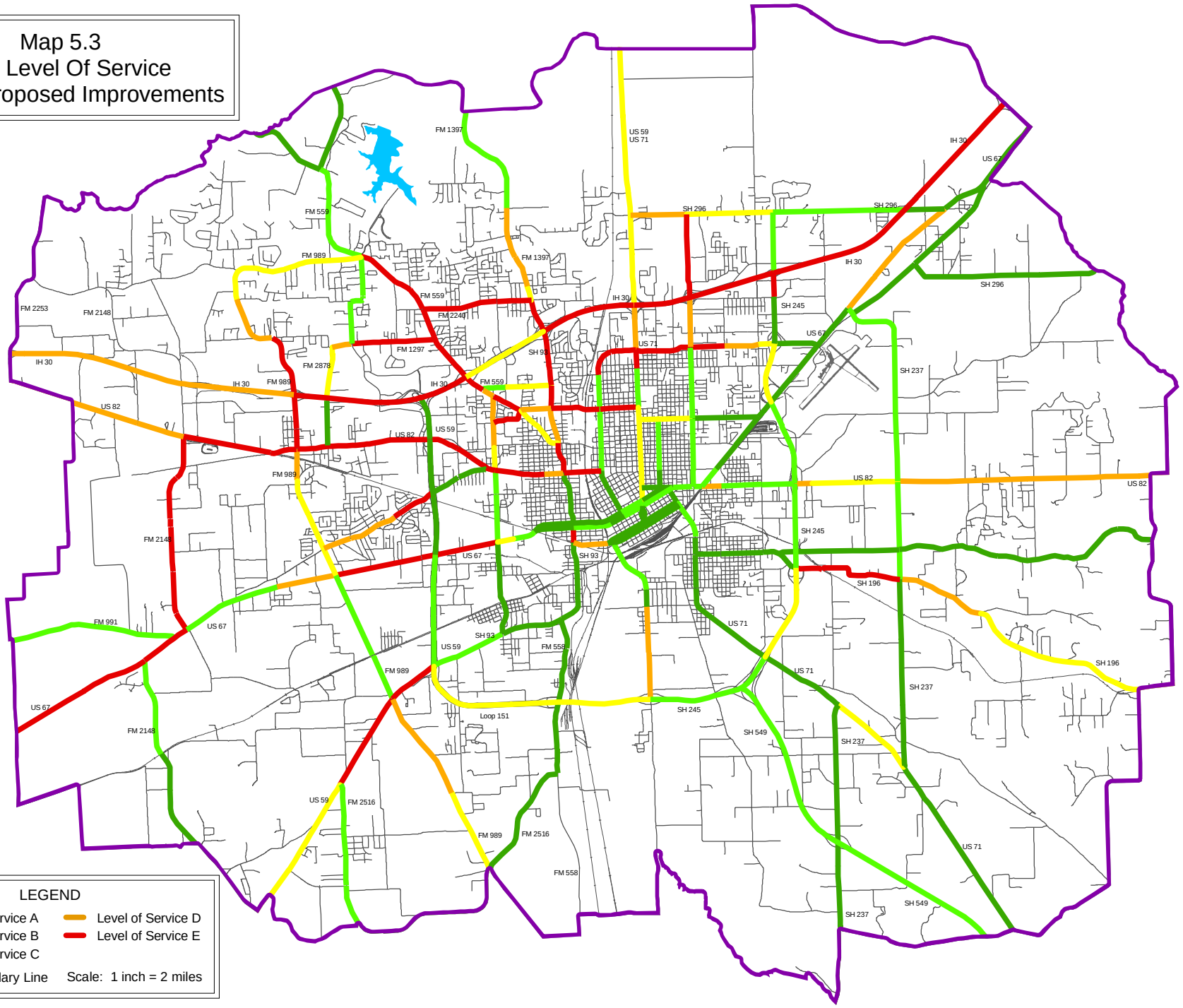
Even with some notable reductions in traffic volumes at a number of locations between 2005 and 2009, the Texarkana area is projected to experience a substantial increase in roadway sections with LOS E by the year 2035. Based on this 25-year trend in traffic volumes, **Map 5.3** – 2035 Level of Service without proposed improvements, reveals that portions of most major thoroughfares, particularly on the Texas-side, will experience increased levels of congestion. Roadways in 2035 on the Arkansas-side of the area expected to have LOS E are:

1. IH 30 from US 71 (State Line Avenue) to SH 108.
2. Jefferson Avenue from IH 30 to SH 296 (Sugar Hill Road).
3. Arkansas Boulevard from US 71 (State Line Avenue) to east of Jefferson Avenue.
4. SH 196 (Genoa Road) from SH 245 to SH 237 (Rondo Road).

Roadways on the Texas-side of the area projected to experience LOS E in 2035 are:

1. IH 30 from US 71 (State Line Avenue) to SH 93 (Summerhill Road).
2. IH 30 from FM 559 (Richmond Road) to FM 989 (Kings Highway).
3. FM 1397 (Summerhill Road) from College Drive to FM 2240 (Moores Lane).
4. FM 2240 (Moores Lane) from FM 1397 (Summerhill Road) to FM 559 (Richmond Road).
5. FM 559 (Richmond Road) from Kennedy Lane to FM 2878 (Pleasant Grove Road) and University Avenue.
6. FM 1397 (McKnight Road) from FM 559 (Richmond Road) to FM 2878 (Pleasant Grove Road).
7. FM 989 (Kings Highway) from US 82 (New Boston Road) to Cooper Lane.
8. US 82 (New Boston Road) from FM 2148 to Milam Street.
9. FM 2148 from US 82 (New Boston Road) to US 67 (West 7th Street).
10. US 67 (West 7th Street) from FM 2148 to MPO western boundary.
11. US 67 (West 7th Street) from FM 989 (Kings Highway) to Robison Road.
12. US 59 from FM 2516 to Loop 151 and SH 93 (Lake Drive).
13. Redwater Road from Burma Road to US 59 (Jarvis Parkway).
14. FM 559 (Richmond Road) from North Robison Road to College Drive.

Map 5.3
2035 Level Of Service
Without Proposed Improvements



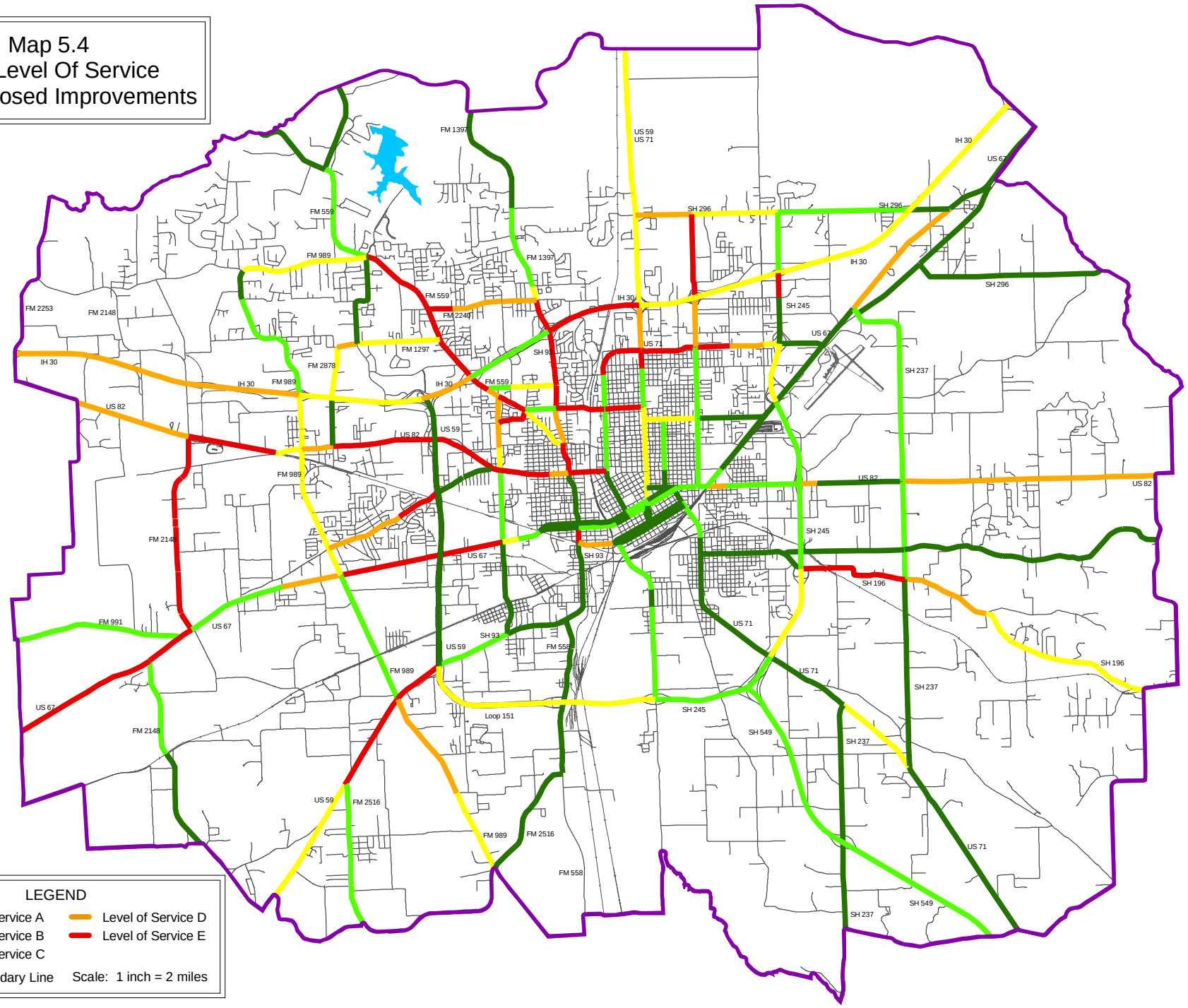
15. College Drive from FM 559 (Richmond Road) to North Robison Road.
16. SH 93 (Summerhill Road) from US 82 (New Boston Road) to FM 559 (Richmond Road).
17. US 82 (New Boston Road) from SH 93 (Summerhill Road) to Loop 14 (Texas Boulevard).
18. College Drive from SH 93 (Summerhill Road) to US 71 (State Line Avenue).
19. Loop 14 (Texas Boulevard) from US 71 (State Line Avenue) to West 40th Street.

Based on proposed roadway projects with increased capacity to through lanes between 2009 and 2035 as presented in Chapter 10, LOS calculations for those projects were completed and are presented in **Map 5.4** – 2035 Level of Service with proposed improvements.. Projects included in the analysis were roadways increased from 2 lanes to 4 lanes or 4 lanes to 6 lanes, and freeways increased from 4 lanes to 6 lanes. Projects which added a continuous turn lane to a 2 lane or 4 lane road were not included as projects with increased capacity since it did not add a through lane to the roadway. It is recognized that such a continuous turn lane does add a limited amount of additional capacity to the road but it was not calculated for inclusion in **Map 5.4**.

The following lists the impacts in reductions below LOS E in 2035 by completion of the proposed freeway and roadway projects as contained in this MTP:

1. IH 30 widening from 4 lanes to 6 lanes from US 71 (State Line Avenue) to SH 108 reduces LOS from E to C.
2. IH 30 widening from 4 lanes to 6 lanes from FM 559 (Richmond Road) to US 59 (Jarvis Parkway) and from US 59 (Jarvis Parkway) to FM 989 (Kings Highway) reduces LOS from E to D and C, respectively.
3. FM 2240 (Moores Lane) from 2 lanes to 4 lanes with continuous turn lane from FM 1397 (Summerhill Road) to Robin Lane reduces LOS from E to D.
4. FM 1297 (McKnight Road) from 2 lanes to 4 lanes with continuous turn lane from FM 559 (Richmond Road) to FM 2878 (Pleasant Grove Road) reduces LOS from E to C.
5. FM 989 (Pleasant Grove Road) from 2 lanes to 4 lanes with continuous turn lane from IH 30 to Cooper Lane reduces LOS from E to B.
6. FM 989 (Kings Highway) from 4 lanes to 6 lanes from IH 30 to south of US 82 (New Boston Road) reduces LOS from E to C.
7. US 82 (New Boston Road) from 2 lanes to 4 lanes with continuous turn lane from FM 989 (Kings Highway) to FM 2878 (Pecan Street) reduces LOS from E to D.

Map 5.4
2035 Level Of Service
With Proposed Improvements



LEGEND

- Level of Service A
- Level of Service B
- Level of Service C
- Level of Service D
- Level of Service E
- MPO Boundary Line

Scale: 1 inch = 2 miles

TRAFFIC VOLUMES

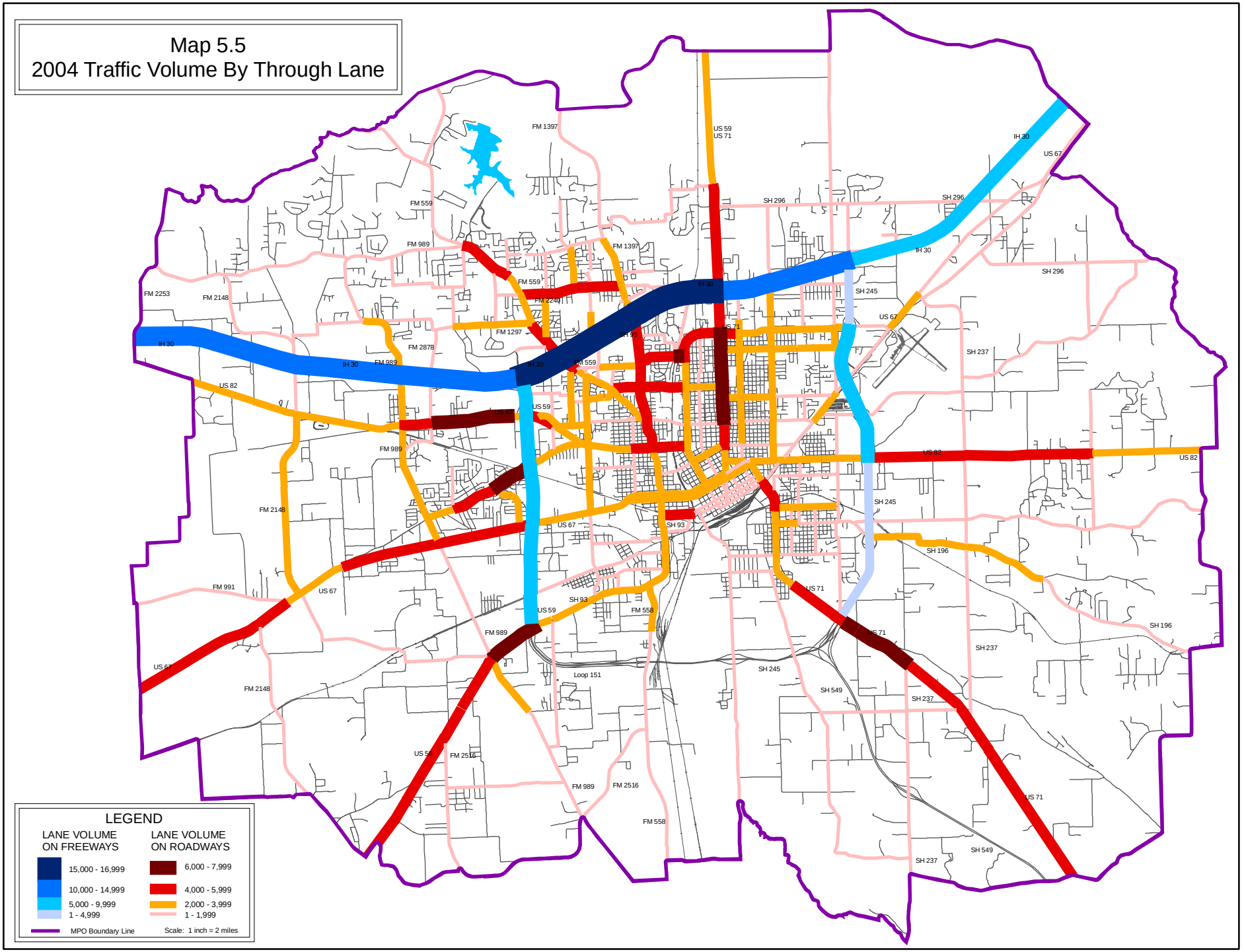
Another means to gauge traffic patterns along freeways and roadways is to determine the traffic count based on the number of lanes on the roadway. This methodology is based on the number of through lanes divided by the road's traffic count. This is a simplified analytical tool because turning lanes and center turn lanes are not factored into the calculations. Traffic volumes utilized in this analysis were calculated as the number of axles hits by vehicles on a traffic counting tube divided by two (2). This count is not a vehicle count because different types of vehicles have more than two (2) axles. **Map 5.5** shows the 2004 traffic volume by through lane and **Map 5.6** presents the 2009 traffic volume by through lane. In order to differentiate traffic volumes on the maps by color, four (4) numerical categories were established for both freeways and roadways. During this discussion, the two (2) highest categories of traffic volumes by freeways and roadways will be highlighted due to its impact on congestion.

In 2004, the highest traffic volume by through lane on freeways (dark blue line on **Maps 5.5** and **5.6**) was along IH 30 from US 71 (State Line Avenue) to US 59 (Jarvis Parkway). In 2009, the highest traffic volume by through lane on freeways was also along IH 30 but was limited from US 71 (State Line Avenue) to SH 93 (Summerhill Road) and from FM 559 (Richmond Road) to US 59 (Jarvis Parkway). The lower volume on IH 30 between SH 93 (Summerhill Road) and FM 559 (Richmond Road) may be attributed to fewer local residents driving on IH 30 during reconstruction of the frontage roads, ramps and bridges. Another factor impacting lower traffic counts is the national decrease in vehicle miles traveled (VMT) primarily resulting from higher gasoline prices in 2008 and 2009.

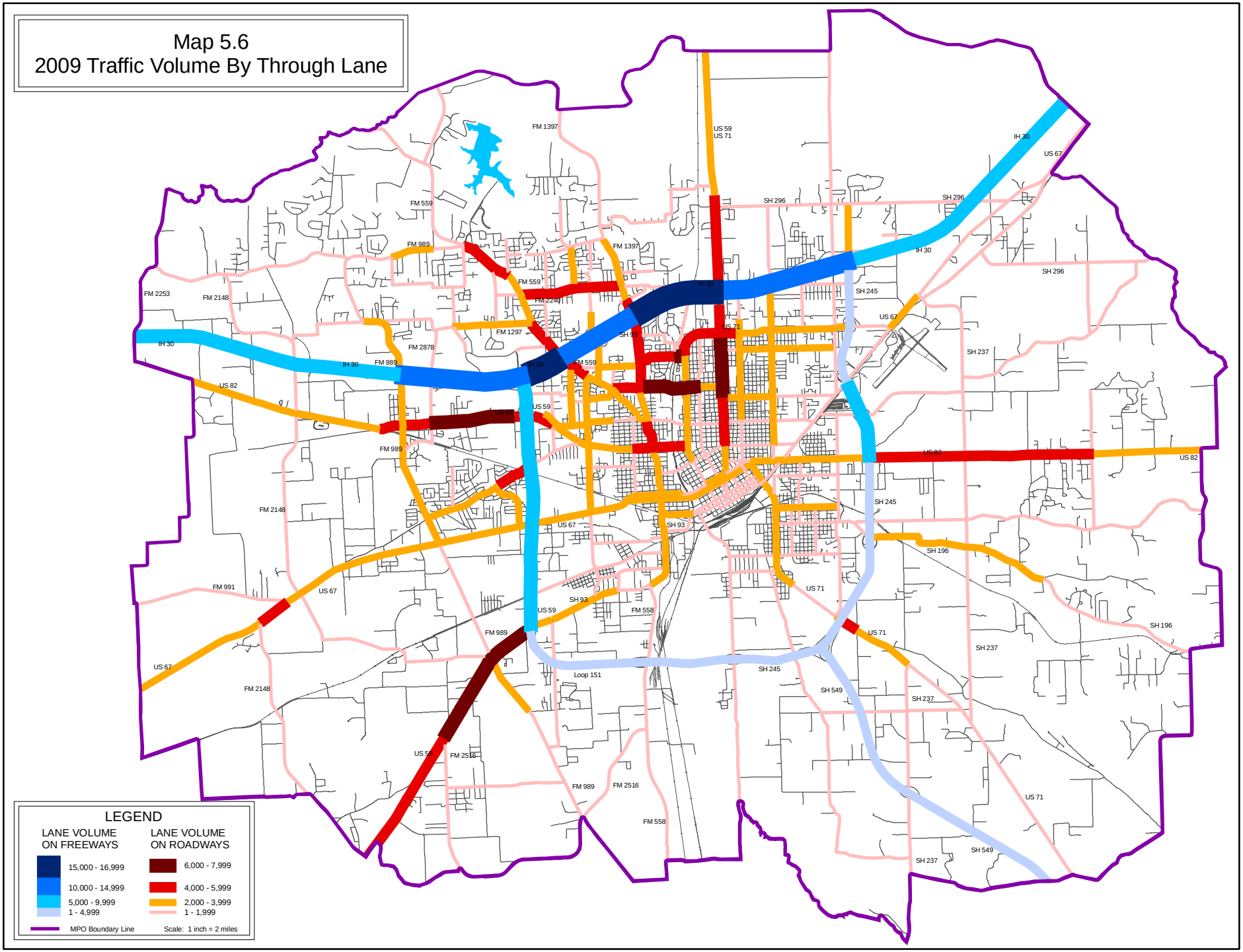
The highest traffic volumes by through lane on roadways (non-freeways) are shown on the maps as dark red and red. In 2004, the highest volumes were on US 71 (East Street) from SH 245 to SH 237 (Blackman Ferry Road), US 71 (State Line Avenue) from Arkansas Boulevard/Texas Boulevard to East 18th Street, Redwater Road from US 59 (Jarvis Parkway) to Burma Road, US 82 (New Boston Road) from Elliott Road to Pecan Street, and US 59 from SH 93 (Lake Drive) to FM 989 (Kings Highway). In 2009, the highest traffic volumes were on US 71 (State Line Avenue) from Arkansas Boulevard/Texas Boulevard to East 24th Street, West 40th Street from Loop 14 (Texas Boulevard) to Sabine Avenue, College Drive from Olive Street to SH 93 (Summerhill Road), US 82 (New Boston Road) from Elliott Road to Pecan Street, and US 59 from SH 93 (Lake Drive) to FM 2516 (Buchanan Loop Road).

In comparing the traffic volumes between 2004 and 2009, the most notable changes have been identified as follows:

1. Significant reduction in traffic volume along US 71 (East Street) from Orange Street to the MPO boundary as a result of the opening of SH 549.
2. Increase in traffic volume along SH 245 from Arkansas Boulevard to US 67 (East Broad Street)
3. Increase in traffic volume along College Drive from Olive Street to SH 93 (Summerhill Road).


Map 5.5
2004 Traffic Volume By Through Lane
LEGEND
LANE VOLUME ON FREEWAYS
15,000 - 16,999
10,000 - 14,999
5,000 - 9,999
1 - 4,999
LANE VOLUME ON ROADWAYS
6,000 - 7,999
4,000 - 5,999
2,000 - 3,999
1 - 1,999
MPO Boundary Line
Scale: 1 inch = 2 miles
FM 1397
US 59
US 71
IH 30
US 67
FM 559
SH 296
FM 989
FM 2253
FM 2148
FM 2240
FM 1297
FM 2878
SH 245
SH 237
US 82
SH 93
SH 196
FM 991
FM 558
Loop 151
SH 549
FM 2516

Map 5.6
2009 Traffic Volume By Through Lane



This page left intentionally blank.

4. Increase in traffic volume along FM 1397 (Summerhill Road) from Galleria Oaks Drive to IH 30 and from College Drive to FM 559 (Richmond Road).
5. Increase in traffic volume along Redwater Road from US 59 (Jarvis Parkway) to Loma Lynda Drive.
6. Decrease in traffic volume along US 67 (West 7th Street) from US 59 (Jarvis Parkway) to the western MPO boundary.
7. Increase in traffic volume along US 59 (Lake Drive) from FM 989 (Kings Highway) to FM 2516 (Buchanan Loop Road).
8. Decrease in traffic volume along IH 30 from SH 93 (Summerhill Road) to FM 559 (Richmond Road) may be caused by construction in this area of IH 30.

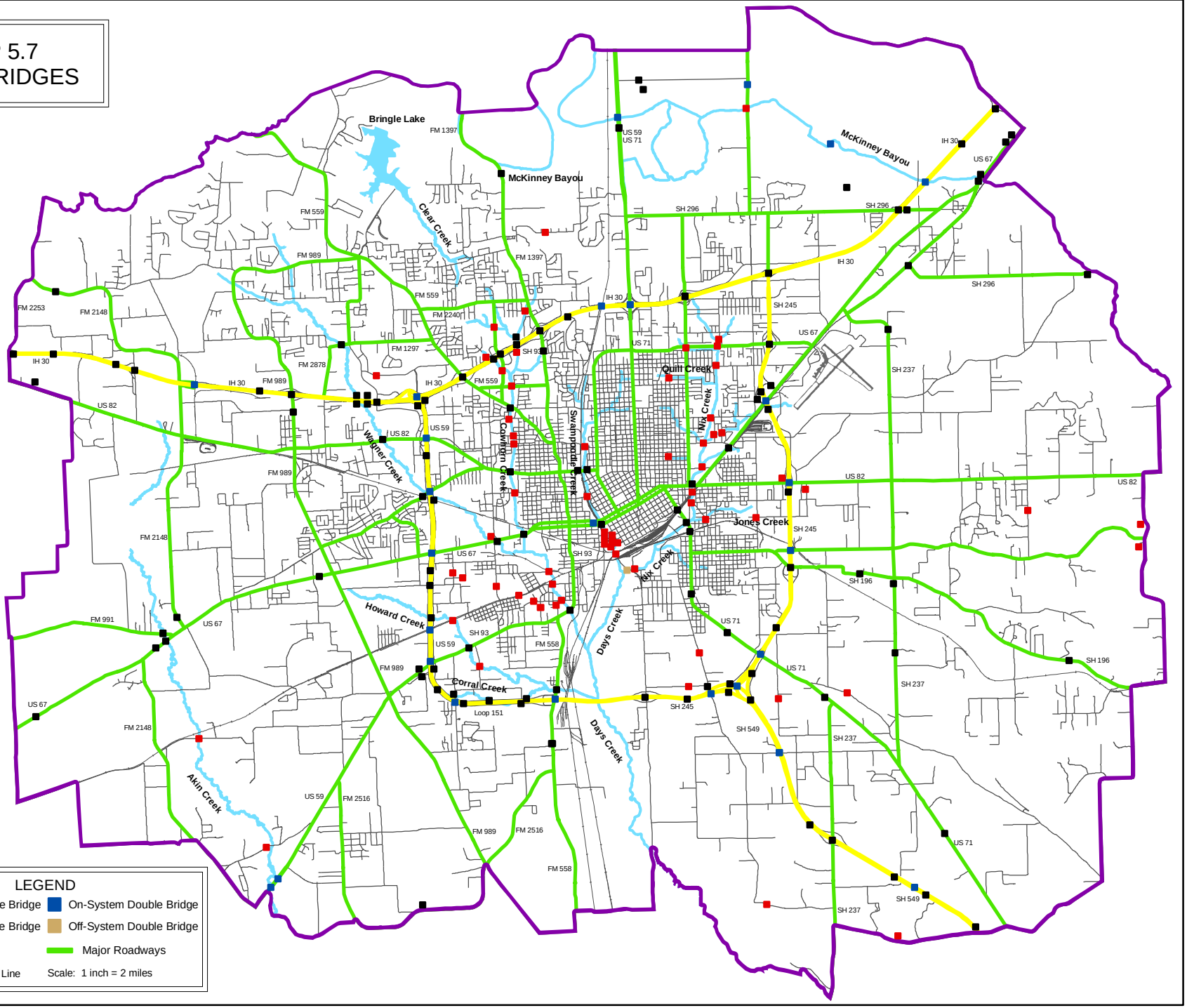
BRIDGE PERFORMANCE

Bridges within the TxDOT area of responsibility are inspected every two years with the results entered into the Bridge Inventory and Inspection Database. The results are then analyzed according to inspection criteria, and the bridges are issued a Sufficiency Rating based on those calculations. All bridges with a Sufficiency Rating below 50.0 are considered eligible for replacement. There are 119 bridge-class structures within the Texas-side of the TUTS study area (See **Map 5.7**). Those consist of sixty-three (63) TxDOT on-system single bridges, fifteen (15) TxDOT on-system double bridges, four (4) off-system single bridges maintained by Bowie County, Texas, thirty-six (36) off-system single bridges maintained by the City of Texarkana, Texas, and one (1) off-system double bridge maintained by the City of Texarkana, Texas. Four (4) bridges located on State Line Avenue are counted as both TxDOT and AHTD bridges since they are listed on both state inventories.

Bridges within the AHTD area of responsibility are also inspected every two years with the results entered into the OASIS database. The results are then analyzed and issued a sufficiency rating. A bridge with a sufficiency rating less than fifty (50) is eligible for replacement and a bridge with a sufficiency rating between fifty (50) and seventy (70) is eligible for rehabilitation funding. There are ninety-four (94) bridges in the Arkansas portion of the TUTS study area (See **Map 5.7**). These consist of forty-nine (49) AHTD on-system single bridges, fourteen (14) AHTD on-system double bridges, eight (8) off-system single bridges maintained by Miller County, Arkansas, and twenty-three (23) off-system single bridges maintained by the City of Texarkana, Arkansas.

AHTD has classified three (3) bridges as structurally deficient and six (6) bridges as functionally obsolete. Texarkana, Arkansas is responsible for one (1) structurally deficient bridge and AHTD is responsible for the other two (2). AHTD is responsible for all six (6) that are functionally obsolete. One (1) structurally deficient and one (1) functionally obsolete bridge are currently being replaced as part of the IH 30 corridor project. TxDOT has classified seventeen (17) bridges as functionally obsolete and two (2) bridges as structurally deficient. TxDOT is responsible for nine (9) functionally obsolete bridges with five (5) of those bridges currently being replaced as part of the IH 30 corridor project. Texarkana, Texas is responsible for two (2) structurally deficient bridges and eight (8) functionally obsolete bridges.

MAP 5.7
AREA BRIDGES



LEGEND

- On-System Single Bridge
- On-System Double Bridge
- Off-System Single Bridge
- Off-System Double Bridge
- Freeways
- Major Roadways
- MPO Boundary Line
- Scale: 1 inch = 2 miles

TRAVEL TIME STUDIES

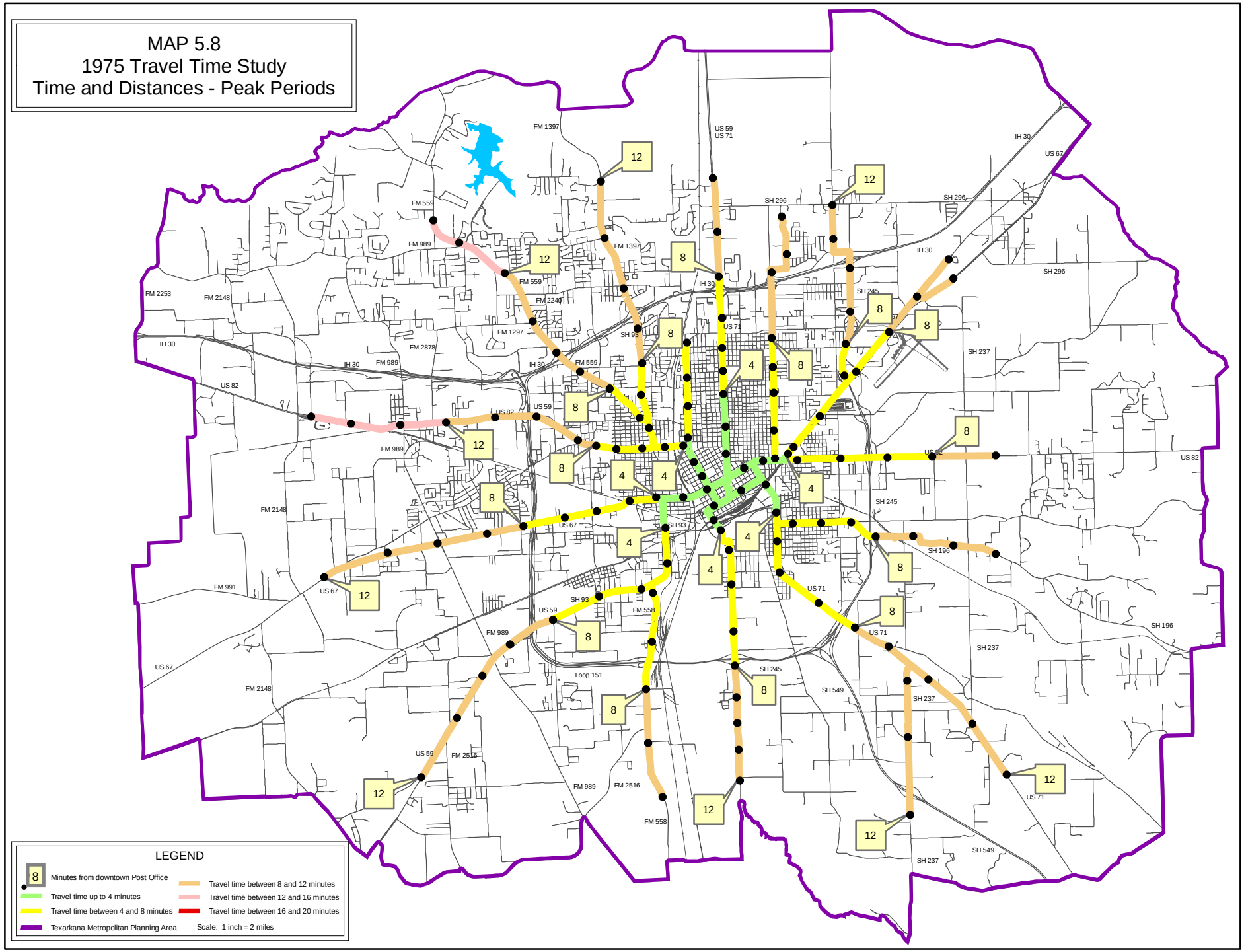
Travel Time Studies are extremely useful in the transportation planning process to identify areas impacted by congestion by measuring the time to travel between locations. As time increases to travel between points, there are several factors contributing to that affect including congestion, delay at traffic signals, delay from vehicles accessing the roadway from intersecting streets and driveways, etc. In 1975 and 2005, travel time studies were performed that measured travel time to or from the downtown U.S. Post Office to various points along several roadways. Information from the travel time studies was based on the peak hour, whether it is a morning, afternoon or evening trip for each particular roadway.

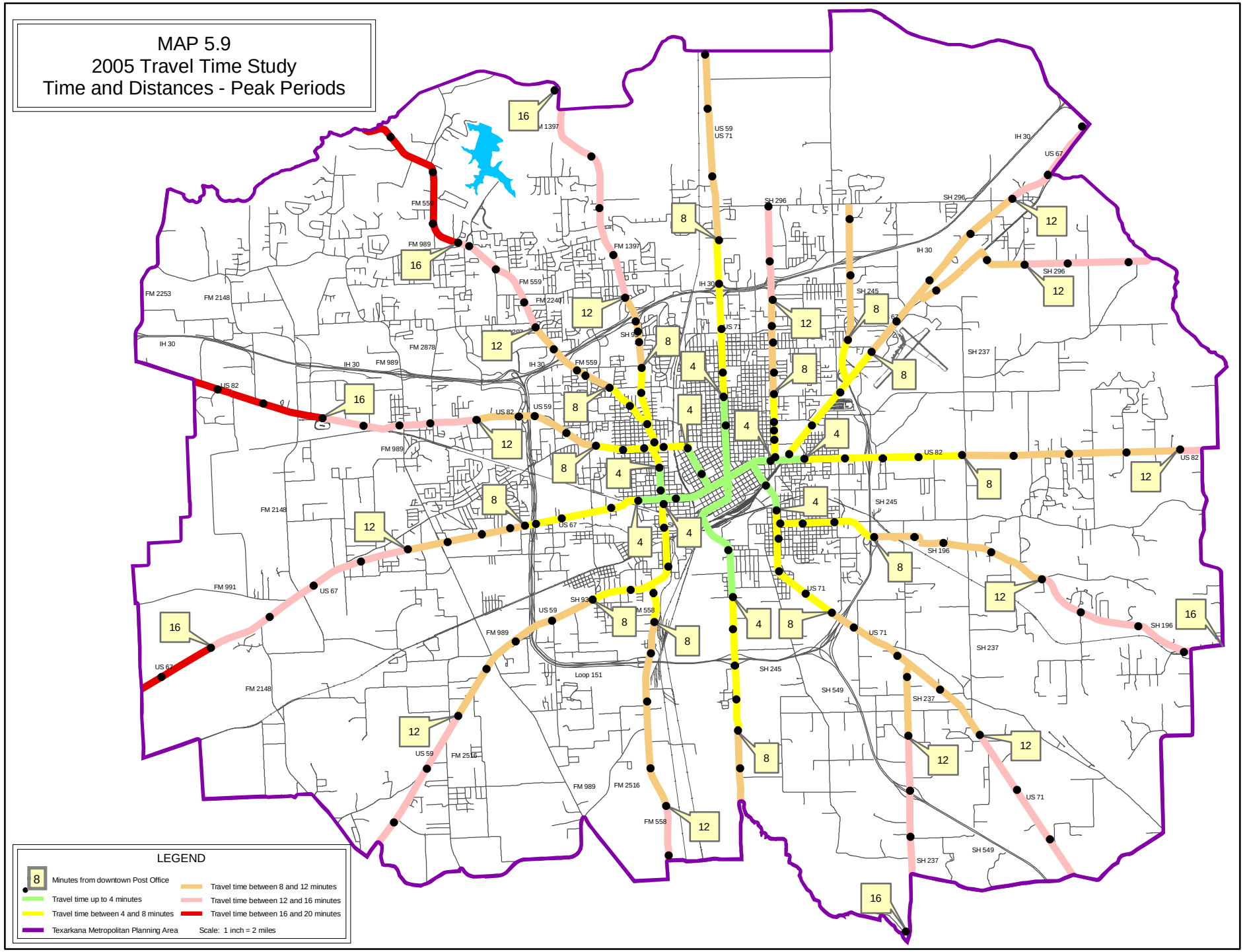
Map 5.8 shows the results of the 1975 travel time study and **Map 5.9** presents the 2005 travel time study results. In comparing the 1975 and 2005 travel time studies, the following conclusions were noted:

- US 71 (State Line Avenue) – The distance traveled in 2005 compared to 1975 improved in that it took 10 minutes in 1975 to reach north of Forest Lake Drive while that trip in 2005 took 9 minutes. This improvement in 2005 may be attributed to operational improvements to traffic signals along State Line Avenue.
- Jefferson Avenue – In 2005, it took 14 minutes to travel to SH 296 (Sugar Hill Road) compared to 11 minutes in 1975 to reach a point along Mount Olive Drive just south of SH 296 (Sugar Hill Road). The increased time of 3 minutes in 2005 is caused by the delay from traffic congestion at Arkansas High School and possibly by increased delay at traffic signals due to increased congestion along Jefferson Avenue and the intersecting streets including Arkansas Boulevard, East 35th Street and East 24th Street.
- US 67 (East Broad Street) and SH 245 – In 1975 and 2005, the distance traveled in 8 minutes was nearly the same over the 30-year period. With US 67 being a 4-lane road, it has had excess capacity during the 30-year to accommodate the traffic utilizing this roadway and travel speeds have not been slowed by traffic congestion or having installed additional traffic signals along US 67.
- US 67 (East Broad Street) – In 1975 and 2005, the distance traveled in 10 minutes was nearly the same. As previously stated, US 67 being a 4-lane road with excess capacity is able to handle traffic on this roadway.
- US 82 (East 9th Street) – In 1975 and 2005, the distance traveled in 9 minutes was nearly identical. The area has not experienced a significant increase in population during the 30-year period and the existing roadways are capable of accommodating the existing traffic without delays due to congestion. Another factor that may have contributed to not increasing travel time was the conversion of sections of US 82 from 4-lanes to 4-lanes with a center turn lane.
- SH 196 (Division Avenue and Genoa Road) – In 1975 the distance traveled in 11 minutes along Division Avenue and Genoa Road was virtually identical as traveled in 2005. The lack of population growth in this area has allowed this 2-lane road to accommodate traffic at the same speeds over the 30-year period.

- US 71 (East Street) – The distance traveled in 12 minutes in 2005 was only slightly less than traveled 30 years earlier in 1975. The lack of population growth in this area and re-stripping to provide a turning lane along sections of US 71 has allowed this roadway to maintain travel distances comparable to those in 1975.
- US 71 (East Street) and SH 237 (Blackman Ferry Road) – The distance traveled in 12 minutes in 1975 was traveled in 2005 in 13 minutes. The possible reason for the comparable distances traveled in 2005 and 1975 along US 71 was set forth in the preceding paragraph.
- South State Line Avenue – In 1975, the distance traveled in 12 minutes was slightly more than traveled in 9 minutes in 2005. This significant decrease in the time to travel to near Miller County Road 68 can most likely be attributed to the increased speed to cross over the downtown railroads by traveling across the current 4-lane concrete Texas Viaduct compared to the trip over the 2-lane metal bridge that was demolished.
- US 59 (Lake Drive) – In 1975 a 12 minute trip reached south of Sherwood Forest Road while that same distance was traveled in 13 minutes in 2005. This increase in travel time of 1 minute was added between the downtown Post Office and the intersection of Lake Drive and Phenie Street. The increase probably resulted from increased time stopped at traffic signals instead of delay caused by congestion since this area has not experienced significant population growth.
- FM 558 (Buchanan Road) – In 1975 it was a 10 minute trip to get to south of FM 2516 (Buchanan Loop Road) compared to 12 minutes in 2005. The increased travel time of 2 minutes is due to congestion and delays at traffic signals.
- US 67 (West 7th Street) – In 1975 a 12 minute trip reached east of FM 2148 while approximately the same distance was traveled in 14 minutes in 2005. This increase of 2 minutes in travel time by 2005 is attributed to delay at traffic signals at West 7th Street and Wake Village Road and at FM 898 (Kings Highway). The widening of West 7th Street with its increased capacity has permitted this roadway to accommodate increased traffic caused by the significant growth experienced in the Wake Village area and the area to the west along US 67.
- US 82 (New Boston Road) – In 1975, the distance traveled in 15 minutes was to east of FM 2148 and nearly the same distance was traveled in 2005 in 16 minutes. This additional trip length of 1 minute resulted from delay at the traffic signal at US 59 and the slower travel speeds in the vicinity of the Super Wal-Mart.
- FM 559 (Richmond Road) – In 1975, the distance traveled in 14 minutes was to north of Jones Lane while the same distance was traveled in 2005 in 17 minutes. This additional trip length of 3 minutes resulted from delay due to traffic congestion and delay at traffic signals in the vicinity of Central Mall, delay at traffic signals on Richmond Road at FM 2240 (Moores Lane) and FM 1297 (McKnight Road), and congestion and delay at the traffic signal at Richmond Road and FM 2878 (Pleasant Grove Road). The widening of Richmond Road from 2-lanes to 4-lanes with a center turn lane has increased the roadway's capacity to help compensate for the increased traffic along this major arterial from the Pleasant Grove area into the city. The rapid retail development in the vicinity of I-30 and Richmond Road and the resulting delays at traffic signals could result in travel time continuing to increase along the Richmond Road corridor in the future.

- SH 93 (Summerhill Road) – In 1975, the distance traveled in 12 minutes was to Shilling Lane while the same distance was traveled in 2005 in 14½ minutes. This additional trip length of 2½ minutes was primarily the result of traffic congestion and delay at traffic signals in the vicinity of I-30 and Summerhill Road. In 1975 and 2005, the distances traveled in 8 minutes was nearly identical to Kennedy Lane. During the 30-year period, the widening of Summerhill Road from 2-lanes to 4-lanes with a center turn lane has increased the roadway's capacity to compensate for the increased traffic along this major arterial south of I-30.


MAP 5.8
1975 Travel Time Study
Time and Distances - Peak Periods
LEGEND
8 Minutes from downtown Post Office
Travel time up to 4 minutes
Travel time between 4 and 8 minutes
Texarkana Metropolitan Planning Area
Travel time between 8 and 12 minutes
Travel time between 12 and 16 minutes
Travel time between 16 and 20 minutes
Scale: 1 inch = 2 miles
FM 1397
US 59
US 71
IH 30
US 67
SH 296
FM 559
FM 989
FM 2253
FM 2148
FM 2240
FM 1297
FM 2878
SH 93
SH 245
SH 237
US 82
FM 991
FM 558
SH 196
Loop 151
SH 549
FM 2516
FM 989


MAP 5.9
2005 Travel Time Study
Time and Distances - Peak Periods
LEGEND
8 Minutes from downtown Post Office
Travel time up to 4 minutes
Travel time between 4 and 8 minutes
Texarkana Metropolitan Planning Area
Travel time between 8 and 12 minutes
Travel time between 12 and 16 minutes
Travel time between 16 and 20 minutes
Scale: 1 inch = 2 miles
US 59
US 71
IH 30
US 67
SH 296
FM 559
FM 989
FM 1397
FM 2253
FM 2148
FM 2240
FM 2878
US 82
SH 245
SH 237
FM 991
SH 93
FM 558
SH 196
Loop 151
SH 549
FM 2516

This page left intentionally blank.

6 BICYCLES AND PEDESTRIANS

6 BICYCLES AND PEDESTRIANS

Local citizens have shown an increased interest in bicycling and pedestrian facilities as reflected in the City of Texarkana, Texas' Comprehensive Plan, the Texarkana Chamber of Commerce's Vision 2020, comments from the public during the update of the MTP, and comments from members of the Texarkana Bicycle Club and Partnership for the Pathway. In order to plan for a truly multi-modal transportation system, the Texarkana MPO contracted with Alliance Transportation Group, Inc. to develop a Master Bicycle and Pedestrian Plan. The Master Bicycle and Pedestrian Plan was completed in October 2009 and is considered a part of the *TUTS 2035 PLAN* by reference.

MASTER BICYCLE AND PEDESTRIAN PLAN SUMMARY

The consideration of bicyclists and pedestrians is required in the development of transportation plans. Except where prohibited, bicycle and pedestrian facilities are required to be considered in all new construction and reconstruction projects. Federal guidance suggests that not including bicycle and pedestrian access in federal projects should be the exception and not the rule. Another important consideration is the safety of bicyclists and pedestrians as commuters. Towards these goals, Metropolitan Transportation Plans (MTPs) are required to address the provision of contiguous routes for bicyclists and pedestrians. They must also consider bicycle transportation facilities and pedestrian walkways for all new construction and reconstruction of transportation facilities, unless bicycle use and walking would be prohibited on a specific facility. It is intended that bicycle and pedestrian facilities be part of an integrated, multi-modal transportation system for the metropolitan planning area.

Origin of the Plan

This bicycling and pedestrian plan for Texarkana is designed to provide a comprehensive vision for non-motorized transportation as well as recreation. Having a master plan is a first step towards coordination among the various agencies responsible for transportation and recreation facilities, as well as other interested parties. Bicycling is a popular sport in Texarkana and the area's relatively mild climate allows for bicycling and walking much of the year.

Vision for the Texarkana Area

The Master Bicycle and Pedestrian Plan is designed to do the following:

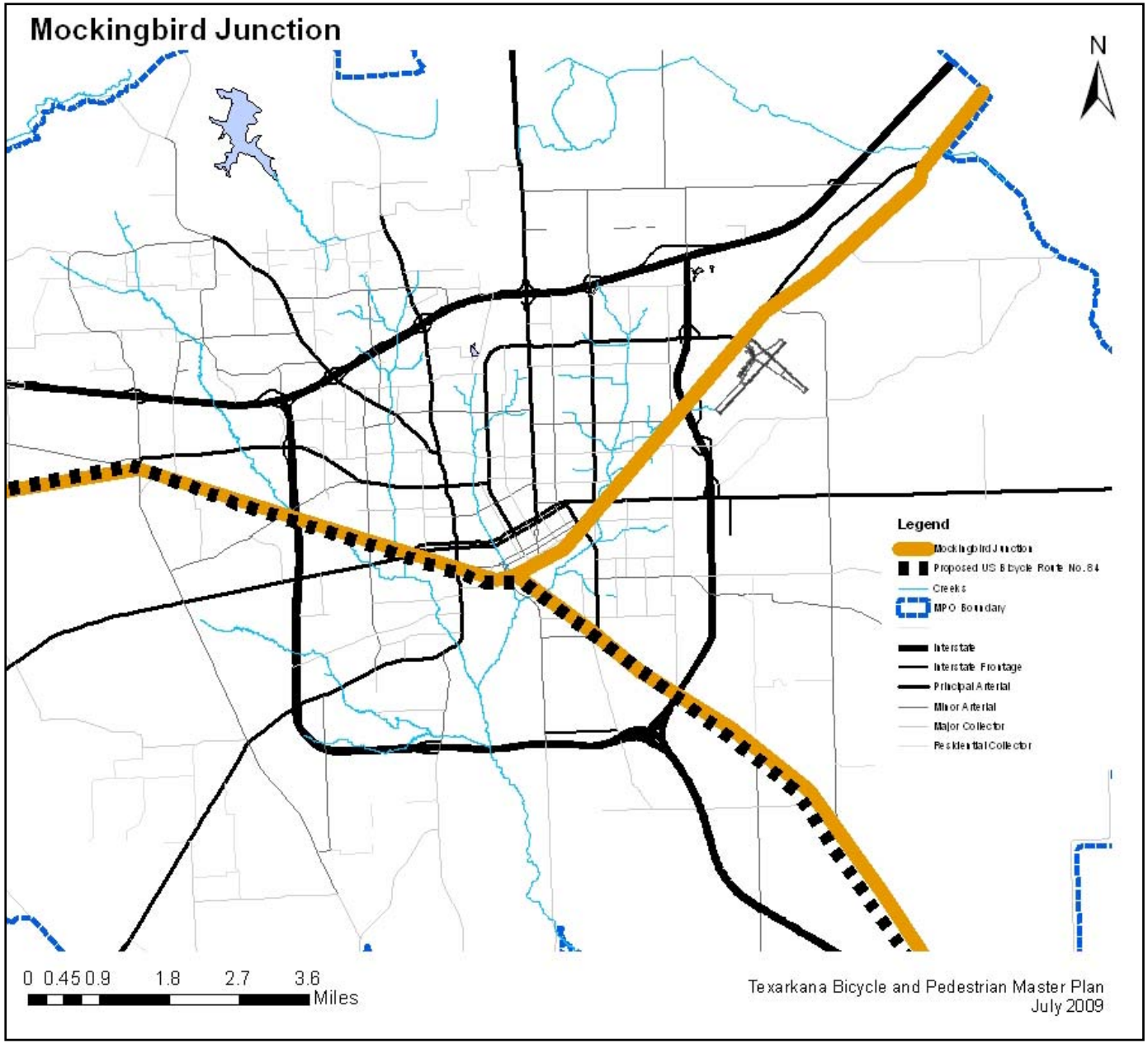
- Meet local, regional, and national goals;
- Connect neighborhoods to destinations such as schools, parks, and shopping centers;
- Provide a single design guide for facilities and treatments; and,
- Connect transit, intercity bus, and rail services.

Local, regional, and national activities/plans suggest increased demand for non-motorized facilities is in the future. At the national level, the American Association of State and Highway Transportation Officials (AASHTO) and the American Cycling Association are presently developing a national numbered Bicycle Route System. Current drafts show Route 84 passing through Texarkana. At the regional level, the Northeast Texas Recreational Trail is currently designed to go from Farmersville (on the outskirts of the Dallas metropolitan area) 147 miles through Paris, Texas to New Boston 22 miles to the west of Texarkana. At the local level, the City of Texarkana, Texas Parks Department has developed a Parks Master Plan with a goal to utilize linear parks to link several existing parks together and another goal to incorporate public art in a variety of public settings. The City of Texarkana, Arkansas is continuing to work on the expansion of the Nix Creek Trail while the City of Wake Village, Texas is planning for several bicycle and pedestrian facilities throughout its jurisdiction. Altogether these activities suggest it is time for Texarkana to have a master bicycle and pedestrian plan. The main corridor of this regional plan is referred to as Mockingbird Junction, named after the state bird of Arkansas and Texas, and is shown in **Map 6.1**.

Benefits of Having a Plan

Having a master bicycle and pedestrian plan provides many benefits to the community. First, it provides a comprehensive overview of all the elements that make up the non-motorized transportation system. Some elements fall under the jurisdiction of the MPO, AHTD, and TxDOT, while others are under the purview of the cities' public works or parks departments. And, Texarkana has an active citizen community involved in active living. With everyone working from an integrated plan with consistent design guidelines, the public will find themselves with a seamless system to use and the motoring public will also encounter consistent signs and usage.

Map 6.1: Mockingbird Junction



This page intentionally left blank.

A master plan is an essential part of efforts to build the non-motorized system. As agencies and local groups apply for funding for various elements of the plan, they can demonstrate how it fits into a larger picture for the area. This is particularly important on the Arkansas side since it is AHTD policy to accommodate bicyclists and pedestrians on state roads that are part of a bicycle and pedestrian master plan. **Map 6.2** illustrates the non-motorized conceptual plan.

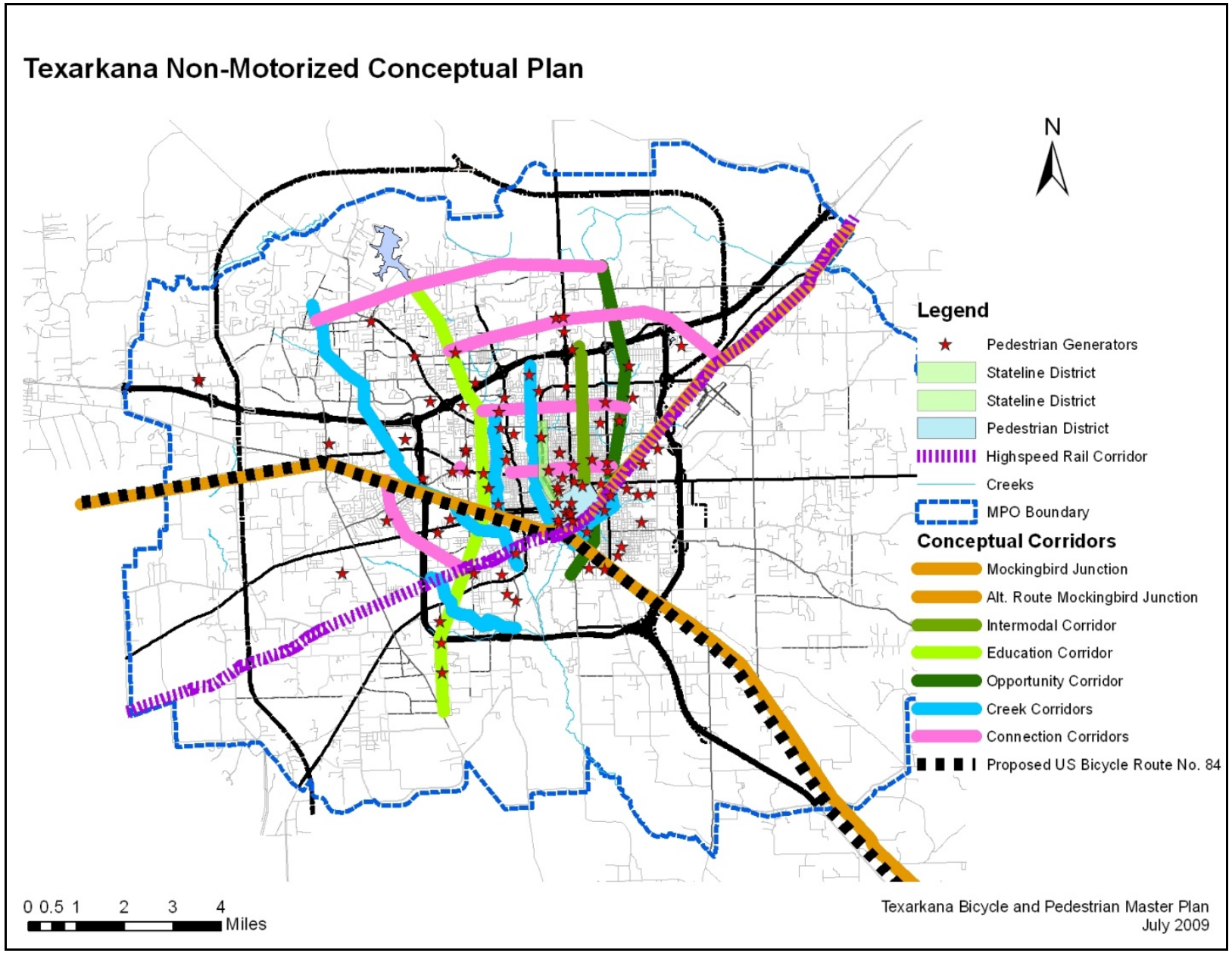
A master plan illustrates the area's commitment to providing for an essential ingredient to a good quality of life. Many businesses that do not face geographical constraints look for other characteristics of an area such as quality of life. Texarkana is well-situated for transportation access with the interstate and several railroad lines going through town. By providing a good quality of life with a city built for active living and recreation, the city can provide a more attractive package to incoming businesses.

According to Census data, a significant number of people living in the Texarkana area fall into segments of the population which make them more likely to be dependent on non-motorized transportation. These citizens represent current latent and potential future demand for use of the alternative transportation network.

Elements of the Non-Motorized Transportation System

As the motor vehicle system is composed of various elements such as roads, signals, signs, and markings, so is the non-motorized transportation system. Elements of the transportation system are standardized by the American Association of State Highway and Transportation Officials (AASHTO) through the establishment of design guidelines in a document known as "The Green Book". The standardization established by "The Green Book" allows people to travel throughout the U.S. (and in many parts of the world) knowing that signals, signs, and markings will be uniform. This section describes the general elements of the bicycle and pedestrian system identified by AASHTO.

Map 6.2: Non-Motorized Conceptual Plan



Bicycle Elements

The elements of the bicycle transportation system are:

- Trails,
- Bicycle lanes,
- Shared lanes,
- Bicycle-friendly signals,
- Signs, and
- Parking.

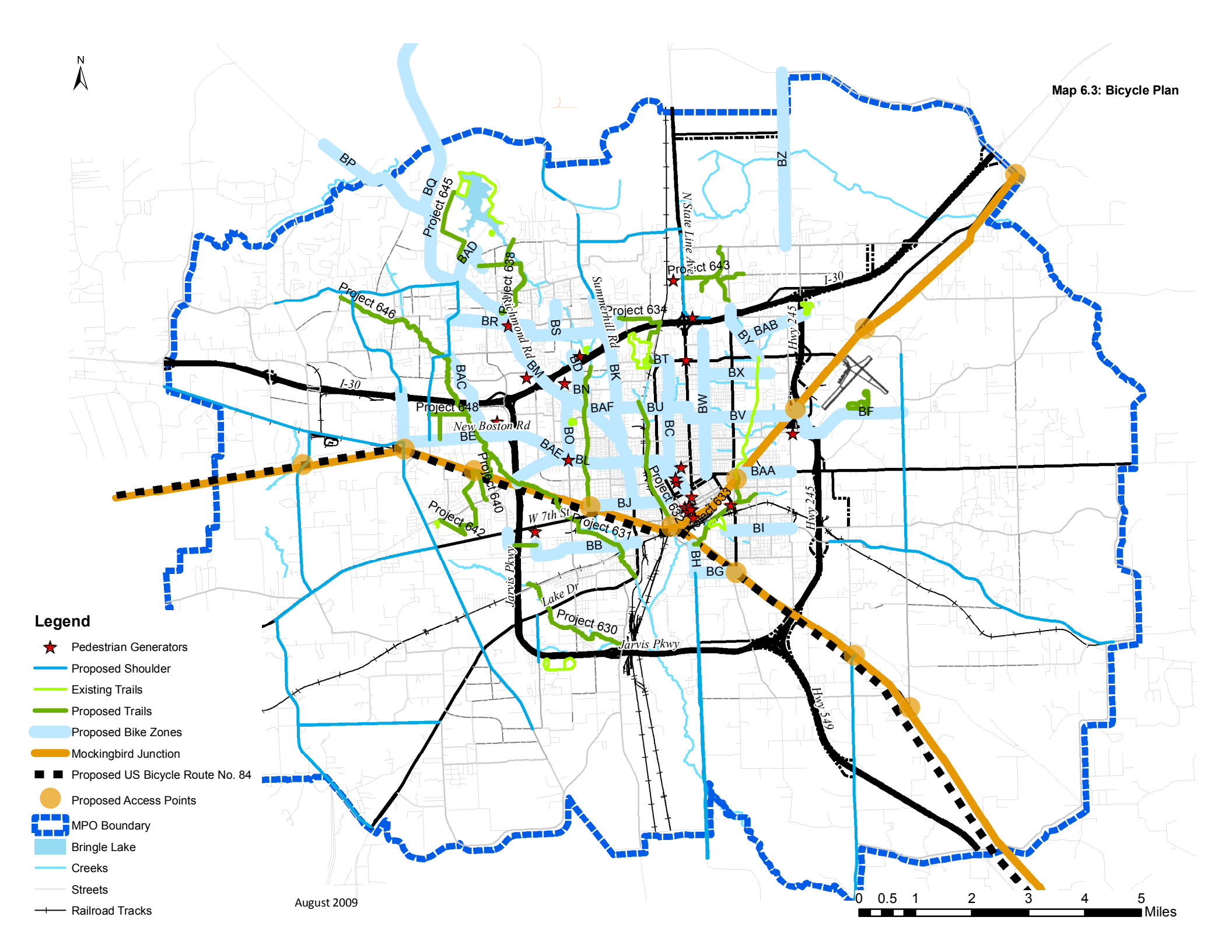
See **Map 6.3** for an illustration of proposed bicycle corridors.

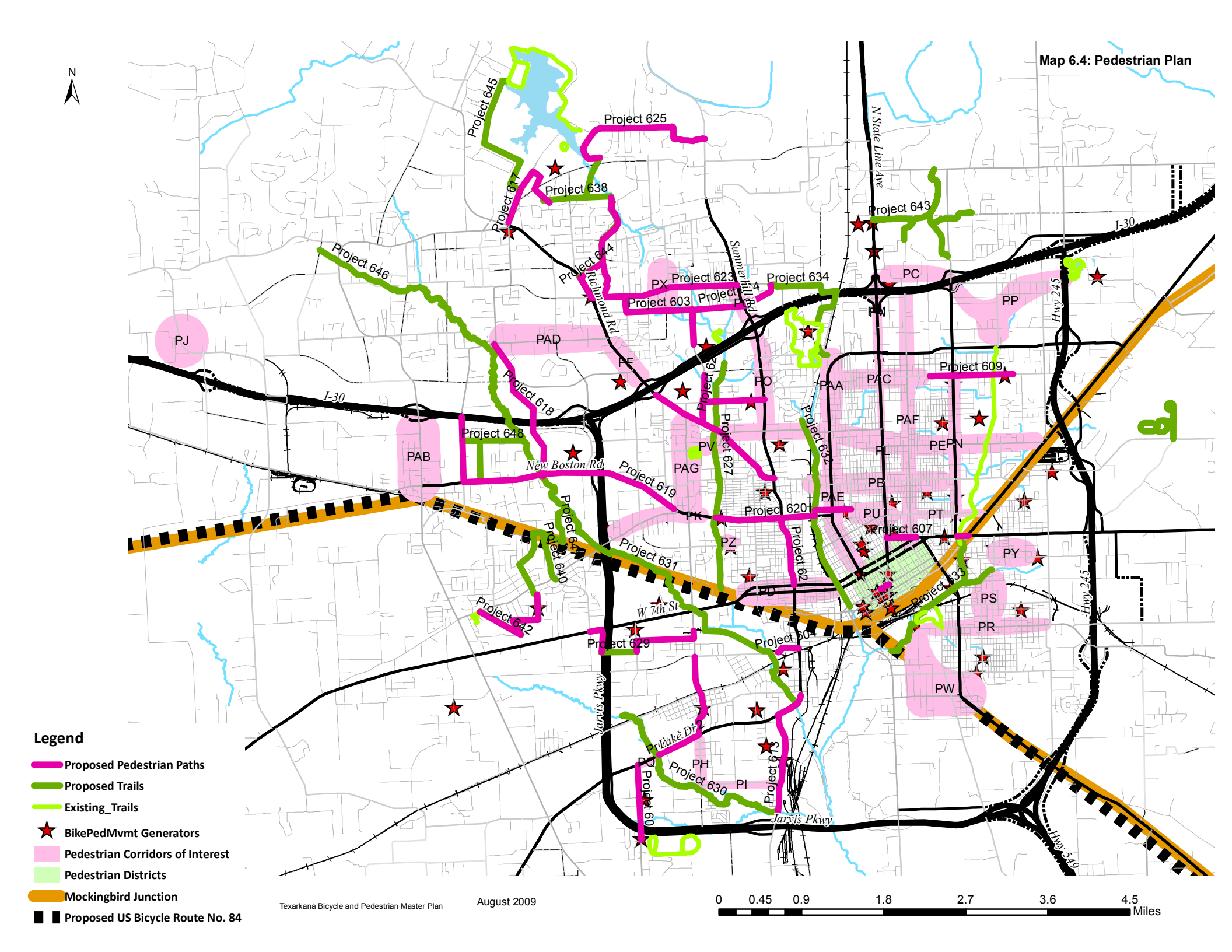
Pedestrian Elements

The elements of the pedestrian transportation system are:

- Trails,
- Sidewalks (including ramps),
- Crosswalks,
- Pedestrian-friendly signals,
- Signs, and
- Lighting and other amenities.

See **Map 6.4** for an illustration of proposed pedestrian corridors.


Map 6.3: Bicycle Plan
N
Legend
Pedestrian Generators
Proposed Shoulder
Existing Trails
Proposed Trails
Proposed Bike Zones
Mockingbird Junction
Proposed US Bicycle Route No. 84
Proposed Access Points
MPO Boundary
Bringle Lake
Creeks
Streets
Railroad Tracks
August 2009
0 0.5 1 2 3 4 5
Miles
BP
BQ
Project 645
BAD
Project 646
Project 638
Richmond Rd
BM
BR
BS
BD
BN
BAC
I-30
Project 648
New Boston Rd
BE
BO
BAE
BL
Project 640
Project 642
W 7th St
Project 637
BB
BJ
Jarvis Pkwy
Lake Dr
Project 630
Summerhill Rd
BK
Project 634
BT
BU
BC
BW
BX
BV
BAB
BY
N State Line Ave
Project 643
I-30
Hwy 245
BF
BAA
Project 632
Project 633
BI
BH
BG
Hwy 549
BZ


Map 6.4: Pedestrian Plan
N
Project 645
Project 625
Project 638
Project 617
Project 644
Project 646
Project 623
Project 603
Project 634
Project 643
N State Line Ave
I-30
Summerhill Rd
Richmond Rd
PJ
PAD
PF
PX
PO
PAA
PAC
PC
PP
PW
Hwy 245
Project 609
Project 618
Project 648
PAB
New Boston Rd
Project 619
PAG
PV
Project 627
Project 632
PAF
PL
PEPN
PB
PAE
Project 620
PK
PU
PT
Project 607
PZ
PY
Project 640
Project 641
Project 631
Project 633
PS
PR
Project 642
W 7th St
Project 629
Project 604
PW
Jarvis Pkwy
Private Dr 2
PH
Project 630
PI
Project 622
Project 601
Hwy 549
Legend
Proposed Pedestrian Paths
Proposed Trails
Existing_Trails
BikePedMvmt Generators
Pedestrian Corridors of Interest
Pedestrian Districts
Mockingbird Junction
Proposed US Bicycle Route No. 84
Texarkana Bicycle and Pedestrian Master Plan
August 2009
0 0.45 0.9 1.8 2.7 3.6 4.5
Miles

This page intentionally left blank.

Project Prioritization

During the public participation utilized in the development of the bicycle and pedestrian plan, citizens were asked what factors they would use to prioritize projects. Following are the top ten (10) criteria identified by participants:

- Coordinate with other local plans,
- Proximity to park,
- Proximity to school,
- Cost/likelihood of funding,
- Extension of existing path or trail,
- Addresses security issues,
- Street traffic,
- Addresses safety issues,
- Filling in gaps, and
- Enhancements such as lighting, signs, and paint.

Discussions during the public meetings also indicated a desire to provide access to existing destinations such as public buildings and shopping. In general, the people of Texarkana want to see a transportation system that connects destinations.

Performance Measures

One way to measure the performance of this Plan is by counting the miles of trails, sidewalk, and bicycle lanes built and the number of crosswalks and bicycle-friendly and pedestrian-friendly intersections installed. However, the true measure of the system is how well it addresses the priorities of the people of Texarkana. The people expressed their thoughts on this subject over the course of several public meetings. Based on the criteria identified by the public, some potential performance measures include:

- Percent of parks accessible by bicycle and walking,
- Percent of schools accessible by bicycle or walking, and
- Linear feet of gaps filled.

It may be appropriate for the Bicycle and Pedestrian Advisory Panel to identify relevant measures.

Implementing the Master Bicycle and Pedestrian Plan

The following recommendations were identified for development of the non-motorized transportation system:

- Establish a Bicycle and Pedestrian Advisory Panel to continue updating and implementing this plan
- Include bicycle and pedestrian infrastructure when rebuilding/rehabilitating roads
- Enforce traffic laws related to bicyclists and pedestrians
- Include 4' shoulder of clear path (i.e., no rumble strip) on designated highway shoulders
- Work with the parks departments on Art in Public Places for bike racks and local branding
- Make easements more inclusive so they include ability for bicycle and pedestrian access (where appropriate)
- Build sidewalks (internal circulation) and connectivity in new subdivisions
- Traffic calming measure should not extend into bicycle lanes (or to edge of lane in wide curb lanes for mixed use)
- Inventory/Data gathering
  - Utility easements
  - Right-of-way on streets (for sidewalks) and railroads
  - Roads with wide enough lanes to restripe and add a bike lane
  - Identify abandoned railroad right-of-way
- Work with the police departments to collect meaningful, easily accessible bicycle and pedestrian crash data
- Install new yellow-green fluorescent (YGF) signs around schools
- Maintain (clean) highway shoulders on bike routes on a regular basis (provide method for bicyclists to report debris and other problems)
- Educate the public about bicycles and motor vehicles sharing the road
- Educate the public regarding children bicycling and walking to school
- Conduct a bicycle parking inventory and identify places to include bicycle parking (such as at parks, shopping centers, and public buildings)
- Provide bicycle and pedestrian access across IH 49 & IH 69 at multiple locations.

7 PUBLIC TRANSPORTATION

7 PUBLIC TRANSPORTATION

The majority of residents in the Texarkana area rely on private automobiles and passenger trucks as their primary means of transportation. However, there are a significant number of residents who must rely on other modes to address their transportation needs. The most notable group of persons dependent on public transportation is low-income individuals and families. With the establishment of the Texarkana Urban Transit District in 2000, a much needed component of Texarkana's transportation system was instituted and its operation to date has exceeded all expectations. Another important component of this region's transportation system is the Texarkana Regional Airport, providing air transportation to major cities in Texas and Arkansas and access to connecting destinations. Texarkana is fortunate to be located on a major Amtrak route, the Texas Eagle, which affords the opportunity for rail transportation between Chicago and Los Angeles and to other routes extending across the country. Another extremely important component of public transportation is the provision of services for disabled and senior citizens who are limited in their ability to use private vehicles for their transportation.

AMTRAK - PASSENGER RAIL SERVICE

According to Griff Hubbard, Texarkana's Amtrak agent, two (2) passenger trains arrive every day. One travels from Chicago to Los Angeles and stops in Texarkana at 5:58 a.m. and the other train travels from Los Angeles to Chicago and stops in Texarkana at 8:43 p.m. The Texas Eagle, as the route is named, serves forty-one (41) cities and offers coach cars, sleeping cars, a dining car and a sightseer lounge with snacks and beverages. Mr. Hubbard noted that Amtrak provides comfortable and safe transportation with low fares. One-way coach ticket prices from Texarkana include $26 to Dallas/Ft. Worth, $63 to Austin, $72 to San Antonio, $99 to St. Louis, $154 to Chicago and $256 to Los Angeles. Price discounts are available for seniors, youth under fifteen (15) years, high school and college students, international students, veterans and military personnel. For an additional fee and based on availability, one or two persons may upgrade to a sleeper car with meals provided in the dining car at no additional cost. In addition to persons from the Texarkana area who ride the train, people from southeast Oklahoma, southwest Arkansas and northwest Louisiana come to Texarkana to board the Texas Eagle.

TEXARKANA REGIONAL AIRPORT

Information contained in this section of the MTP relating to the Texarkana Airport has been obtained from two main sources, those being, (1) Texarkana Airport Capital Improvement Plan 2010-2014, and (2) Stephen Luebbert, Airport Director, Texarkana Regional Airport.

PLANNED NEW TERMINAL COMPLEX

The Texarkana Regional Airport, located at 201 Airport Drive, Texarkana, AR, is a modern, primary commercial service airport operated by an independent Airport Authority. The airport is attended 24-hours daily with an FAA-funded contract air traffic control tower operating from 6 a.m. to 10 p.m. The airport's two instrument runways (6,601 feet and 5,200 feet long) and instrument landing system are capable of routinely supporting Boeing 737 or other large aircraft in weather conditions down to one-half mile visibility and 200 foot cloud ceiling. Additional instrument approach aids include non-directional radio beacon (NDB) and visual omni range (VOR) approaches as well as Global Positioning System (GPS) approaches for all runways.

Source: Lifenet.com

The airport's general aviation facilities are among the best in the region with 43 individual T-hangars, and several large commercial-style hangars used for aircraft storage. Full maintenance (turbine and piston) service is available. Fueling (Jet A-1 and 100LL Avgas) is available through a 24-hour fixed base operator.

The airport is home to Texarkana Airframe and Power Plant School, Texarkana Flying Club, an aircraft charter service, LifeNet air ambulance service, a myriad of corporate and private aircraft, and aircraft sales, service, and maintenance businesses.

American Eagle Airlines provides four (4) daily, all-jet, round-trip flights to Dallas-Fort Worth International Airport. Texarkana Regional Airport's commercial passenger terminal is conveniently located adjacent to US Highway 67 and offers travelers a snack shop, taxi stand, two rental car agencies, and other passenger conveniences. A new terminal is under development and expected to open in 2014. Access to the new terminal will be from SH 245 to East 19th Street.

The airport is the recipient of Federal Airport Improvement Program funds, Passenger Facility Charge funds, Arkansas Department of Aeronautics Grants, Texas Department of Transportation grants, and private and commercial development

financing. Airport management continues to pursue an aggressive maintenance and improvement program to ensure the airport is prepared to handle the region's future air travel needs. The Texarkana Regional Airport's historical and projected annual aviation demand is shown in **Table 7.1.**

TABLE 7.1

HISTORICAL AND FUTURE ANNUAL AVIATION DEMAND

CATEGORY	1991	1999	2005	2010	2015	2020	2025
Enplaned Passengers	42,045	43,527	35,640	44,300	58,600	76,000	93,900
Instrument Operations	18,982	15,730	18,659	20,054	21,083	22,370	23,338
Scheduled Airline Operations	10,531	6,674	5,179	4,864	7,000	8,400	9,000
General Aviation Operations	32,641	27,803	28,151	16,480	22,852	27,650	34,564
Military Operations	3,739	1,826	7,419	6,600	7,700	8,100	8,600
Total Operations	46,911	36,303	40,749	27,944	37,552	44,150	52,164

Source: Tables 3.9, 3.12, 3.19, 3.23, 3.24 and 3.25, Texarkana Regional Airport, Master Plan Study Update, Final Report, September 2003.

Between 1991 and 1999, the number of enplaned passengers increased at an annual rate of less than one-half percent. Enplanement forecast for 2010-2025 was adjusted downward to account for loss of an airline (2003) and the global recession (2008 – est. 2012). Future enplanements are forecasted from 2010 to 2025 based on an average annual increase of approximately 3%. Scheduled airline operations dropped with the loss of an airline in 2003. A second airline began operations in mid 2005 with enplanements gradually recovering until the second carrier ceased operations in October 2008. Military operations continued to improve with transit and training operations. General aviation operations dropped substantially beginning in 2007 due to the high cost of fuel and the recession. Combining scheduled airline operations, general aviation operations and military operations, the total number of operations at the Texarkana Airport is projected to increase from 36,303 operations in 1999 to 52,164 operations in 2025, or an average annual increase of nearly 2%.

Source AA.com

Table 7.2 lists the Airport's Capital Improvement Plan for 2010 - 2014.

TABLE 7.2
CAPITAL IMPROVEMENT PROJECTS – 2010 TO 2014

DESCRIPTION	CATEGORY	COST
Construct ARFF Building	Terminal/Support	$ 2,020,000
Construct Passenger Terminal	Terminal/Support	$26,860,000
Rehabilitate Taxiway "B"	Airfield	$ 1,156,396
Improve Runway 4-22 Safety Area	Airfield	$ 150,000
Conduct Obstruction Survey	Airfield	$ 100,000
Construct Taxiway "D"	Airfield	$ 9,664,057
Rehabilitate Airfield Signage & Beacon	Airfield	$ 388,575
ESTIMATED COST OF IMPROVEMENTS		**$40,339,028**

Source: Texarkana Airport Capital Improvement Plan, 2010-2014.

During the upcoming five (5)-year period, proposed major capital improvements include: (1) completion of the Aircraft Rescue and Fire Fighting (ARFF) station, (2) rehabilitation of B-taxiway, (3) completion of the environmental assessment for the terminal project, (4) improvement to runway safety areas and undertake an obstruction survey, (5) replacement of the airfield's signage and rotating beacon, (6) construction of D-taxiway and the passenger terminal. A new interchange, currently under construction, will connect SH 245 (future I-49) with East 19th Street. This street and SH 237 (Rondo Road) will feed the entryway to the new terminal via a 5-way roundabout.

GREYHOUND INTERCITY BUS SERVICE

Greyhound Bus Lines has thirteen (13) scheduled bus stops at its facility located at 405 East 51st Street, Texarkana, Arkansas. Buses are bound for Little Rock, Memphis, Dallas, Houston, and Kansas City. Kerrville Bus Company provides travel from the Greyhound Station to Ft. Smith, AR. Connections are available for travel anywhere in the United States. On average, about thirty (30) tickets are issued daily.

TEXARKANA URBAN TRANSIT DISTRICT PUBLIC TRANSPORTATION

In 1994, the Ark-Tex Council of Governments (ATCOG), contracted with S.G. Associates to conduct a public transit feasibility study for the Texarkana Urban area. The study, completed in August 1994, showed a need for public

transportation in Texarkana. ATCOG contracted with KFH Consultants to conduct an implementation study that was completed in September 1998. The implementation plan designed the initiation of a fixed-route service for the cities of Texarkana, as well as Nash and Wake Village.

On January 29, 1999, the Texarkana Urban Transit District (TUTD) was formed. The board of directors consists of representatives from Texarkana, Arkansas, Texarkana, Texas, Nash, Texas and Wake Village, Texas. On February 10, 1999, the City of Texarkana, Texas was named the fiscal agent for the urban transit system. An application for Section 5307 Urban Transit Funds was submitted to TxDOT on February 10, 1999.

The Transit District released a Request for Proposal (RFP) on June 4, 1999 to begin the process of subcontracting the urban transit services. After conducting interviews with the three contractors who submitted proposals and scoring the proposals, McDonald Transit from Ft. Worth, Texas was awarded the contract and has operated the T-Line transit system since its inception on October 30, 2000.

The Texarkana Urban Transit District (TUTD) is known locally as the T-Line. Vera Matthews, T-Line's General Manager, provided the following ridership data on the transit system. Between 2006 and 2009, fixed route ridership on the T-Line has increased almost 3%. The T-Line routes are shown on **Map 7.1**. KFH Consultants have been hired to perform a fixed route system analysis for T-Line and ridership is anticipated to increase as the recommendations from this study are implemented. Para-transit ridership from 2006 to 2009 has increased over 123% during the four (4)-year period. Operating costs have also increased but at a significantly lower rate of only 9% over the same time period. This information is reflected in **Table 7.3.**

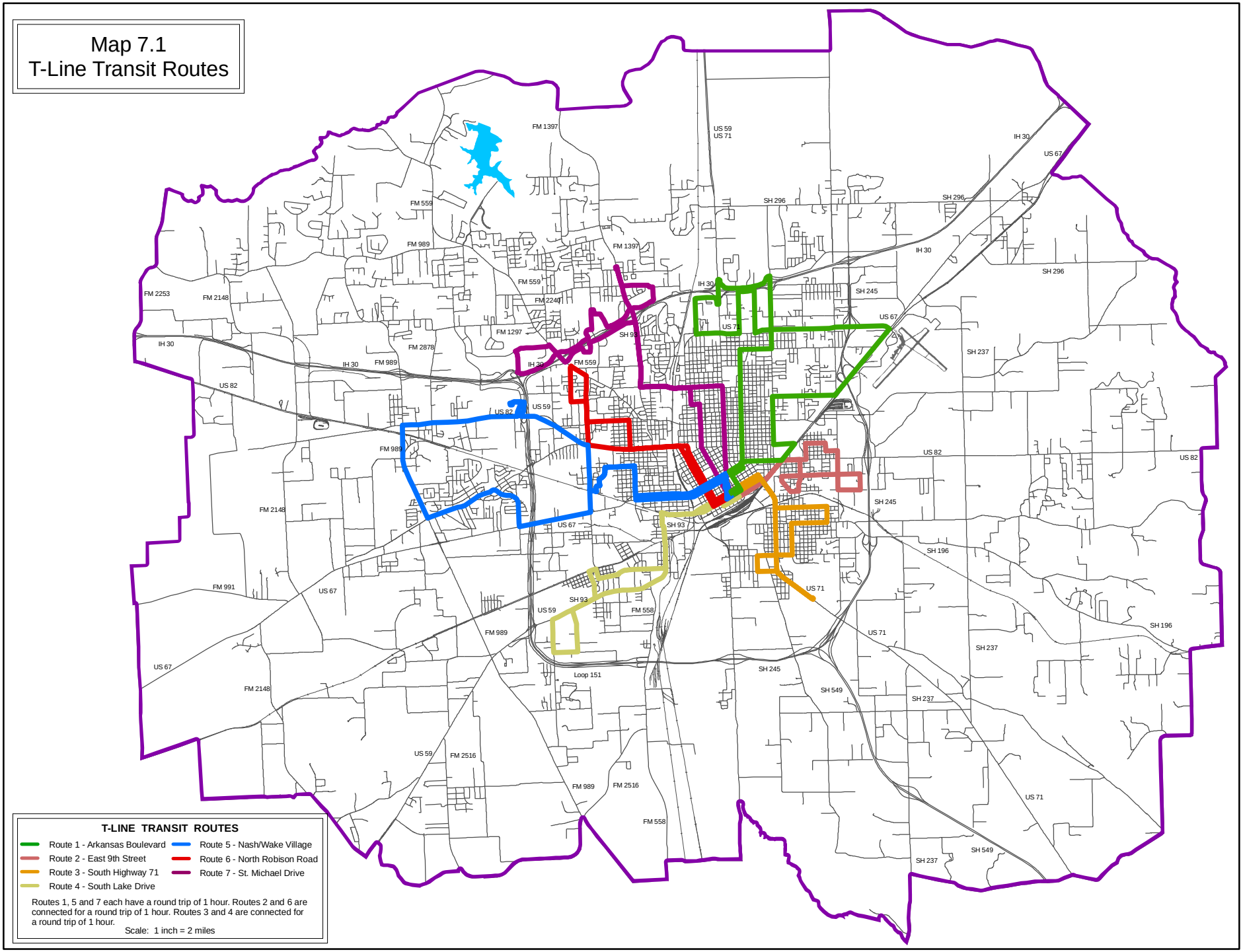
TABLE 7.3

T – LINE TRANSIT SYSTEM RIDERSHIP AND OPERATING COSTS

	FY 2006	FY 2007	FY 2008	FY 2009 (1)
Fixed Route Ridership	262,022	257,385	278,567	269,549
Paratransit Ridership	2,367	3,347	4,419	5,288
Operating Costs	1,331,385	1,425,124	1,286,363	1,450,856

(1) Estimates based on ridership and costs for 9 months and prorated for 12 months.

Map 7.1
T-Line Transit Routes



T-LINE TRANSIT ROUTES

- Route 1 - Arkansas Boulevard
- Route 2 - East 9th Street
- Route 3 - South Highway 71
- Route 4 - South Lake Drive
- Route 5 - Nash/Wake Village
- Route 6 - North Robison Road
- Route 7 - St. Michael Drive

Routes 1, 5 and 7 each have a round trip of 1 hour. Routes 2 and 6 are connected for a round trip of 1 hour. Routes 3 and 4 are connected for a round trip of 1 hour.

Scale: 1 inch = 2 miles

TRAX - RURAL PUBLIC TRANSPORTATION – ARK-TEX COUNCIL OF GOVERNMENTS

The Federal Transit Administration's Section 5311 program funds transportation services for people residing outside urban areas. The Ark-Tex Council of Governments' rural public transportation program, known as TRAX, offers these services in the rural portions of Bowie County. Utilizing sixteen (16) vehicles, TRAX provided 107,423 one-way trips for the citizens of Bowie County in fiscal year 2008. Primary points of destination include medical clinics, dialysis clinics, work, schools and retail centers. TRAX and T-Line coordinate the rural transit services in order to make travel inside the urban area more flexible thereby enhancing the overall service to their customers. TRAX provides 450 to 500 one-way trips per month to persons living within the Texarkana MPO study area but outside of the urban area served by T-Line.

TRAX has two (2) vehicles in Texarkana (donated to ATCOG from Senior Citizens Services) that provide transportation to and from the Senior Citizens Services Meal Center at 3000 Texas Blvd. These vehicles were used to provide 3,247 one-way trips for seniors in Texarkana in fiscal year 2008. TRAX is also able to utilize these vehicles in a contractual agreement with T-Line to provide para-transit services within the metropolitan area. TRAX currently provides an average of fifty-five (55) one-way trips per month for T-Line. Funding generated by this contract is used as matching funds for the Federal Transit Administration's New Freedom Transit Program.

ATCOG's New Freedom Program is a transit program that targets disabled citizens within the Texarkana MPO study area but outside the areas serviced by T-Line. ATCOG contracts with City Taxi Company of Texarkana to provide 24 hour a day, 7 days a week transportation services to the disabled citizens in the Texarkana area. The New Freedom Transportation Program started in November 2008. The New Freedom program has two (2) vehicles available and is currently providing 247 one-way trips per month.

The Job Access Reverse Commute (JARC) transportation program is a Welfare to Work Transit program that is a coordinated effort between TRAX and the Northeast Texas Workforce Solutions (NTWS). JARC participants are referred to TRAX by NTWS and TRAX takes people to job training and job searches and supplies transit services to and from work for three months after participants find a job. Participants of the JARC Transportation Program are able to take their children to the daycare center before doing job searches, training, or going to work. TRAX operates five (5) vans within the Texarkana area and TRAX has a contract with City Taxi Company to supply JARC trips after regular weekday hours and on weekends. This creates a seamless transportation network that operates 24 hours a day, 7 days a week. In fiscal year 2008, the JARC Transportation Program provided 42,471 one-way trips to JARC participants. 500 participants came off the welfare rolls and acquired jobs during that time period. TRAX received the National Association of Development Organization 2008 Excellence in Transportation Award for the 2008 JARC Program in Bowie County.

ELDERLY AND DISABLED PUBLIC TRANSPORTATION

Section 5310 Program Funds are allocated to assist not-for-profit agencies with the financial resources to purchase capital equipment in order to service their clients who are elderly, physically challenged, or developmentally disabled. This Federal Transportation Administration program requires the local provider to fund 20% of the program. The grant monies are used to purchase between seven (7) and twenty-six (26)-passenger vehicles, wheelchair lifts and/or other modifications that meet the special needs of the elderly and disabled persons, and for the rehabilitation of approved vehicles. Local applicants for Section 5310 funding must meet the intent of the program, i.e., enhance the mobility of elderly and persons with disabilities in urbanized and non-urbanized areas to places of employment, healthcare, education, shopping facilities, recreation, and other needed services.

Section 5310 providers in the Texarkana Metropolitan Area include: Texarkana Special Education Center (TSEC), dba Opportunities Inc., Texarkana Work Center, and Cornerstone Retirement Community. Opportunities, Inc. coordinates transportation services with the Arkansas Area on Aging, Texas Department of Health, Southwest Arkansas Development Corp., and local elderly residential programs. Transportation is provided on weekdays for children and adults who have disabilities. Texarkana Work Center (TWC) provides transportation services for persons with disabilities. TWC coordinates transportation services with Haven Home of Texarkana, Group Home and Independent Living. Cornerstone Retirement Community (CRC) utilizes its Section 5310 vehicles to provide transportation services for senior citizens. CRC coordinates transportation services with Williams Memorial United Methodist Church and First Baptist Church on Moores Lane.

Transportation is provided for medical needs, grocery store, banking, social activities and paying bills for persons over the age of sixty (60) in Miller County, Arkansas through a contract with the Southwest Arkansas Area on Aging. Included in this service program are residents of Meadow Brook Place. In Bowie County, Texas Medicaid recipients are provided transportation for medical necessities through a contract with the Texas Department of Health. Dialysis patients in both counties are provided transportation with service times coordinated to accommodate varying schedules.

COORDINATED PUBLIC TRANSIT-HUMAN SERVICES TRANSPORTATION PLAN

As a bi-state MPO, the Texarkana area is served by agencies in Arkansas and Texas that provide transit and para-transit services to this region. For the Texas-side of the metropolitan planning area, the Ark-Tex Regional Public Transportation Coordination Plan was adopted on November 30, 2006. For the Arkansas-side of the metropolitan planning area, the Public Transportation and Human Services Coordination Plan for Southwest Arkansas was adopted in 2007. A representative of the Texarkana MPO participated in the development of these plans to ensure their coordination and consistency with the metropolitan planning process.

HIGH-SPEED PASSENGER RAIL SERVICE

The Passenger Rail Improvement and Investment Act of 2008 required states to adopt comprehensive rail plans before they can be eligible for federal funding. In the 81st Texas Legislative Session, a bill was enacted that expanded the Texas Department of Transportation's (TxDOT) rail planning mandate to include development of a long range passenger rail plan. In 2009, the U.S. Department of Transportation released a report titled High-Speed Rail: National Strategy. Texarkana is included on a Designated High-Speed Rail (HSR) Corridor as depicted on **Map 7.2**: VISION *for* HIGH-SPEED RAIL *in* AMERICA. In this report, a long-term strategy is proposed to build an efficient, high-speed passenger rail network of 100- to 600-mile intercity corridors, as one element of a modernized transportation system. An initial investment of $ 8 billion was provided for this endeavor as part of the American Recovery and Reinvestment Act. According to the July 27, 2009 edition of the Engineering News Record forty (40) states filed 278 'pre-applications' totaling $ 102.5 billion. The State of Arkansas submitted an application to the Federal Railroad Administration for funding that will pay half of the cost for a study of possible HSR connections from Texarkana to Memphis, TN through Little Rock. The U.S. House Transportation and Infrastructure Committee also included funding in its version of the next federal transportation bill, The Clean Low-Emissions Affordable New Transportation Equity Act (CLEAN-TEA).

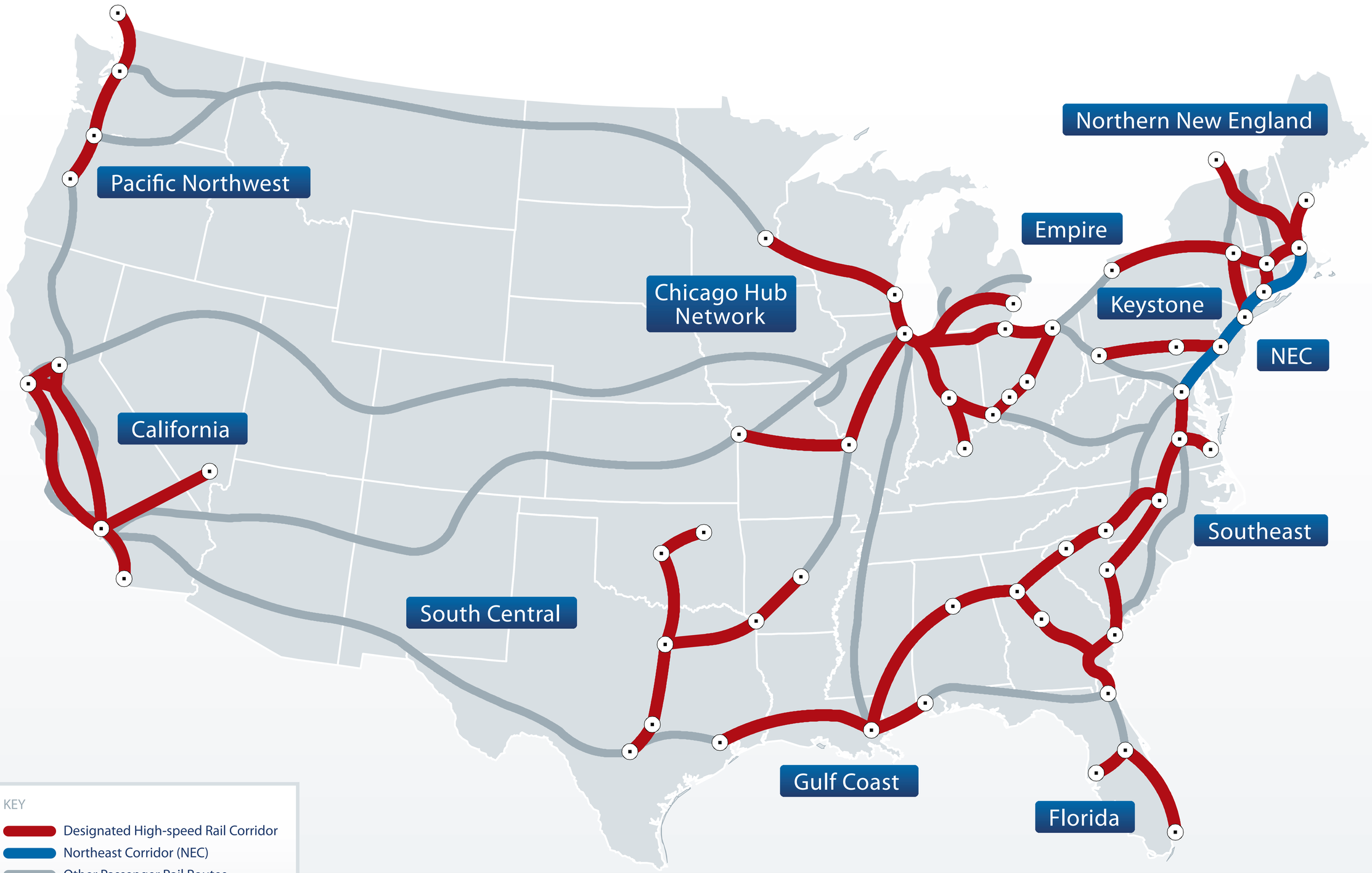
According to the USDOT report development of a HSR system includes the following promising benefits:

- a safe and cost-effective mode of transportation,
- a foundation for economic competitiveness,
- an energy- efficient transportation mode, and
- interconnection of livable communities.

The USDOT report also addresses several challenges associated with achieving the above benefits including:

- a lack of expertise and resources,
- State fiscal constraints,
- relationships/conflicts with private freight railroads,
- a need for multi-state partnerships, and
- a need to develop safety standards for HSR.

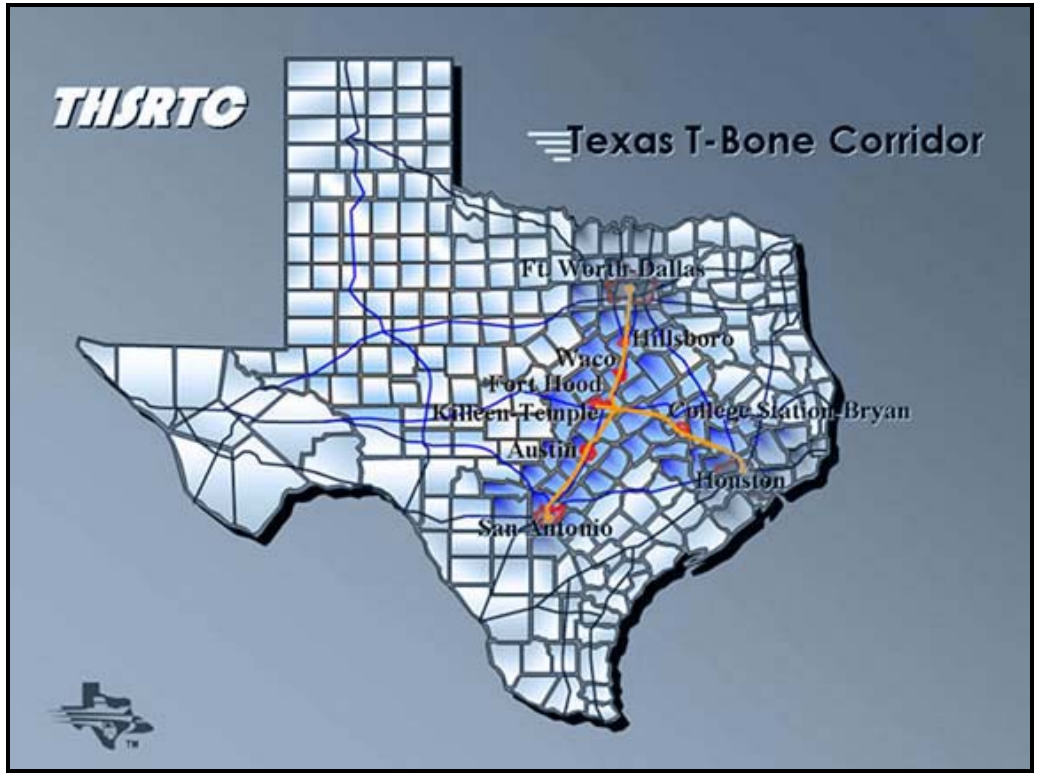
VISION *for* HIGH-SPEED RAIL *in* AMERICA



In the northeast Texas region, the Northeast Texas Rural Rail District (NETEX), has acquired approximately 100 miles of right-of-way. The right-of-way is 100 feet wide and roughly parallels IH 30 from Mount Pleasant to Greenville. Another entity, the Texas High Speed Rail & Transportation Corporation (THSRTC - www.thsrtc.com), is a not-for-profit advocacy corporation formed in 2002 with a current membership of around 10 million. The THSRTCs goal is to develop multi-modal surface transportation and HSR in the State of Texas. THSRTCs vision includes connecting four of the largest metropolitan regions in Texas (Dallas/Fort Worth, Austin, Houston and San Antonio) via a HSR (200 mph average speed) corridor known as the Texas T-Bone (**Map 7.3**). This system would connect major airports on a grade separated corridor utilizing dual directional track with multiple stations off the main line. THSTC would like to accomplish this by the year 2020.

With these efforts at the regional, state and national levels, it may be possible for Texarkana to have a HSR system sometime before 2030. If so, the Texarkana region would have access to major metropolitan areas in Arkansas, Texas, Oklahoma, and even along the eastern seaboard. Imagine being able to live in Texarkana and have access to jobs in the Dallas/Fort Worth Metroplex and Little Rock in less time than it takes to drive to Shreveport today.

Map 7.3 Texas T-Bone High-Speed Rail Corridor



This page intentionally left blank.

8 FREIGHT TRANSPORTATION

8 FREIGHT TRANSPORTATION

For most people, the idea of "transportation" means moving people by airplane, train, or personal vehicles. These activities only tell half the story. Transportation also includes the movement of products such as clothes and furniture as well as raw materials such as plastic, wood, and steel. Trucks, trains, ships and airplanes involved in cargo operations are vital components of the national and regional transportation system.

The benefits of freight transportation to the economy are enormous. Freight transportation increases the value of goods by moving them to locations where they are worth more and encourages competition and production by extending the limits of markets. Efficient, safe, and secure freight transportation helps form the foundation upon which our economic strength rests.

The shift of our economy from a manufacturing base to a broad range of services has many direct and indirect implications for transportation:

- Customers demand more flexible, reliable, timely service.
- Traffic growth is greatest for smaller shipments.
- Demand for traditional, high-volume transportation services will continue to grow but will account for a smaller portion of the industry's revenues and volume.
- Deregulation of the transportation industry has facilitated the growth in multimodal solutions to improve freight mobility.

Deregulation of the transportation industry over the last twenty-five years has allowed carriers to optimize the transportation system by shifting from an inventory-based "manufacture-to-supply" logistics ("push" logistics) to replenishment-based "manufacture-to-order" logistics ("pull" logistics). "Pull" logistics relies less on expensive inventory and more on accurate information and timely transportation to match supply and demand. This optimization resulted in higher productivity with little or no excess capacity or redundancy. The *Journal of Commerce* estimates that American households have saved an average of $1,000 annually since 1980 because of reductions in freight logistics costs. This benefit has come at a cost though. The transition has placed tremendous strains on the system in terms of demand and reliability. The USDOT estimates that by 2020 rail and truck freight will increase by 68% and 86%, respectively. These factors, taken as a whole, are creating a window of opportunity for the Texarkana region to develop a multi-modal transportation facility to provide warehousing, load transfer, and logistics combined with a free trade zone.

THE LOCAL FREIGHT SYSTEM

IH 30, US 59 and US 71 carry major inter-regional and inter-continental truck movements, and several trucking companies are located in the Texarkana area. Truck percentage data obtained from AHTD and TxDOT, truck trip records from the external travel survey and a survey of trucking interests in the Texarkana area were used to identify major truck movements and associated problems. There are several inter-modal facilities in the Texarkana MPO study area which include commercial airports, truck terminals, rail yards, pipeline terminals, an Amtrak station, a Greyhound bus terminal, and a public transit center.

The Union Pacific Railroad (UPRR) currently operates a low capacity facility at the downtown Texarkana yard. Evaluation of the development of a major trailer-on-flatcar (TOFC) and container-on-flatcar (COFC) facility is ongoing. Three possible locations for an inter-modal transfer facility have been identified in the Texarkana region.

Efficient, safe, and secure freight transportation can be developed into an economic strength for the Texarkana region. Improvements in the efficiency and reliability of freight transportation have been the engine of prosperity and competitive advantage for many communities. Texarkana has the opportunity to become a principle transportation hub for freight movement by taking advantage of its geographical location, the economic ties across North America, and the existence of four out of five of the major modes of transportation, combined with a local Free Trade Zone.

Improved access to the region's airport and industrial parks is needed to enhance the efficient movement of people and goods throughout the region. Among the inter-modal recommendations in the previous TUTS 2030 Plan (MTP) that are currently under construction are direct connectors from US 59 to IH 30, reconstruction of the IH 30/US 71 interchange, and grade separation structures on SH 245 to facilitate access to the Maxwell Industrial Park and the Texarkana Regional Airport. That MTP also supported the development of an Inter-modal Freight Transfer Facility as a key to continued regional economic development.

Water Transportation

For a number of years, efforts have been ongoing by the Arkansas Red River Commission (ARRC) to obtain funding to construct locks and dams along the Red River to allow for navigation of the Red River to Index, Fulton and Garland City, Arkansas. Bob Tullos, Executive Director of the Arkansas Red River Commission, has been spearheading this effort to bring navigation of the Red River to Miller County. Navigation on the Red River currently exists to Shreveport, Louisiana. It is desirable that navigation of the Red River be extended into Arkansas and to the Texas state line. Extending navigation in the future to the west to Lake Texoma would provide the Dallas and Fort Worth area with an opportunity to have an inland waterway. Mr. Tullos provided the following information on future milestones in the Red River navigation effort:

February 2009:	Revised Draft Report from U.S. Army Corps of Engineers (USACE) submitted to Baylor University for review.
April 2009:	Final Independent Technical Review (ITR) of Revised Draft Report conducted by agency or department of USACE.
June-July 2009:	ITR Certification to answer questions raised by ITR.
August-October 2009:	External Peer Review (EPR) Initiation of Draft Report which is review of documents by an outside group.
October 2009:	Revised Draft Report submitted to HQUSACE (Headquarters, U.S. Army Corps of Engineers).
October 2009:	NEPA public review of Draft Report.
January 2010:	Final Draft Report submitted to HQUSACE.
March 2010:	Chief Engineer of USACE and Civil Works Review Board (a part of USACE) will make a recommendation to construct or not construct the project to build locks and dams for navigation of the Red River into Arkansas. If the recommendation is to construct the project, the project will be sent to the U.S. Congress for project authorization and for appropriation of funds for project construction.

Inter-Modal Facility

On April 1, 1998, the Arkansas State Highway Commission authorized the preparation of an inter-modal transportation study of the existing freight transportation system in Columbia, Hempstead, Howard, Lafayette, Little River, Miller, Nevada and Sevier Counties in Arkansas, Bowie and Cass Counties in Texas, and northern Caddo and Bossier Parishes in Louisiana. In February 2001, the Ark-La-Tex Freight Transportation Study was completed. A summary of the Major Findings section from that study is presented in **Table 8.1**.

On October 21, 2003, during a meeting of the MPO's Freight Transportation Focus Group related to the development of the MTP, representatives of the business community expressed a need for the development of an inter-modal facility in the Texarkana area. On May 26, 2004, a meeting of business representatives was held to further discuss the issue and a decision was made to request that AHTD conduct a detailed study (as was recommended in the 2001 Freight Transportation Study) for establishing an inter-modal facility. The Texarkana Chamber of Commerce and the City of Texarkana, AR each sent a letter to AHTD requesting that such a study be initiated. On July 7, 2004 the Arkansas State Highway Commission approved Minute Order 2004-102 authorizing a study to determine the potential for an inter-modal facility that would enhance freight storage and distribution capabilities for the Texarkana regional area. The detailed study is expected to be completed in 2005.

Source: fhwa.dot.gov/freightplanning

TABLE 8.1
MAJOR FINDINGS FROM SUMMARY REPORT, FEBRUARY, 2001
ARK-LA-TEX FREIGHT TRANSPORTATION STUDY

General Observations

- ✓ The Ark-La-Tex region is strategically located to national marketplaces and to existing Canada/United States/Mexico trade corridors and should be exploited in future industrial recruiting programs.
- ✓ Exporting is now an important component of the Ark-La-Tex economy and could become a catalyst for economic development of the region.
- ✓ The availability of cost effective freight shipping and receiving options could be key to the continued strong performance of the primary manufacturing activities, namely, wood related operations, fabricated metal production, food items and related goods. Providing shipping alternatives that are flexible and affordable will also be important in recruiting new industrial activities.
- ✓ A significant freight transportation asset of the Ark-La-Tex area is the presence of both Class I and Class III railroad service and ready access to the Interstate Highway System. Air freight service is available and there are major natural gas, oil and product pipelines in the area.
- ✓ Respondents to a freight survey conducted for the study area indicated that:
    - General freight and dry bulk are the region's primary type of freight shipments.
    - The most often used mode for shipping and receiving is truck transportation.
    - Most inbound products are obtained locally or from adjacent states while most outbound products are shipped to markets beyond the Ark-La-Tex region.
- ✓ Analysis of the freight survey and a review of major economic activities indicated the likely need for a multi-purpose cargo terminal supported by rail and truck freight modes as well as additional warehousing, freight consolidation and distribution services.
- ✓ A public slackwater harbor on the Red River near the Texarkana area could be a positive addition to the existing freight transportation system. Water transportation is very cost effective when shipping certain types of bulk commodities and river harbors are good locations for basic industries and for import/export shipments.
- ✓ A possible approach in providing enhanced transportation facilities and services and for further industrial growth could be a regional transportation center/manufacturing complex. A regional inter-modal authority, as allowed under Act 690 of 1997, is one option to provide for area freight transportation needs.
- ✓ Research of national shipping and marketing patterns revealed the following trends that may affect future delivery of freight transportation service in the Ark-La-Tex area:
    - Utilization of warehouses as product assembly points that include activities such as adding parts to semi-finished goods, sorting, wrapping and repackaging, and direct product mailing.

- Escalation of internet (e-commerce) retail/wholesale business will require the trucking industry to improve response time.
- Increased use of containerized freight service (inter-modal rail/truck shipments) for both domestic and overseas shipments.
- Greater tendency to outsource product handling to third party specialists.
- An inclination by industry to seek sites where all needed infrastructure and facilities are in place.

Transportation Related Impacts/Benefits

- Lower freight bills, especially for long haul shipments through a combination of rail/water/truck inter-modal services
- Freight loading and unloading efficiencies
- Inventory cost savings

Economic Related Impacts/Benefits

- Jobs, wages, and income from sales
- Increased tax revenues
- Stronger regional economic alliance
- New market areas for regional products
- Catalyst for attracting new business activities

Regional Transportation centers can also help promote growth and development. For example, warehousing and packaging services could be offered to support existing manufacturing activities. Also, export services could be provided to assist shippers in developing foreign markets for their products.

Next Steps/Key Issues

To further assess the possible advantages and disadvantages of a regional freight transportation center for the Ark-La-Tex area the following should be considered.

- ✓ A detailed study by freight logistics/financial experts to verify and refine the results of this study.
- ✓ Identification of feasible sites. The site selection process should be based on traditional location factors with special consideration given to the availability of fiber optics, access to interstate 30 and regional railroad lines, and proximity to the Red River and existing industries.

- ✓ A Master Site Plan showing proposed locations for roads, rail spur lines, utilities, and transportation support facilities (i.e., warehousing, loading docks, transit sheds, truck terminals).
- ✓ A Regional Inter-modal Authority could possibly be organized under Arkansas' Act 690. This Act has provisions for funding, construction and operation of inter-modal freight facilities.
- ✓ A targeted industrial recruitment program could be advantageous to identifying likely industry that could benefit from a regional transportation center.
- ✓ Federal, state and local incentives programs to help relocate and recruit industrial and distribution firms should be identified.
- ✓ A detailed feasibility study of container services should be conducted. The study should take into consideration likely usage and cost.
- ✓ A shipping "niche" must be identified. Two possible ventures are export/customs services and freight sorting, labeling and packaging services.
- ✓ Conference/class room facilities for meetings and training should be considered when developing the Master Site Plan. These facilities could be a valuable recruiting tool for industries requiring ongoing instructional programs for their workers.
- ✓ In cooperation with local, regional and state economic development groups, a marketing program which would detail the many advantages that the Ark-La-Tex region has to offer businesses could be beneficial in promoting a regional transportation complex.

This page intentionally left blank.

9 FINANCIAL PLAN

9 FINANCIAL PLAN

This section presents a financial plan for implementing improvements to the transportation system. The purpose of the financial plan is to evaluate the resources available to build and maintain transportation facilities. It is based on an analysis of past funding, expected funding, and projected needs. Federal regulations mandate that a region's transportation plan be financially constrained. This means that the Texarkana MPO must demonstrate that it is "reasonable" to expect enough funding will be available for the improvements identified.

In addition to determining a "reasonable" estimate of funding, federal regulations require MPO's to account for the effects of inflation on project costs. To address this requirement, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA), issued rules that require long-range transportation plans to demonstrate financial constraint by using Year-of-Expenditure (YOE) dollars and Total Project Cost (TPC). The rationale for these requirements is that by converting estimates to YOE dollars and accounting for all costs associated with a project through TPC, the historical understatement of the deficit between costs and revenues may be corrected and a more accurate financial picture of the long-range transportation plan could be provided.

When developing estimates for a long-range planning document such as this one, the inflation factors used will not reflect short term changes in price indices. Short term fluctuations in costs have historically leveled out over time. The more difficult question is whether or not recent increases in construction materials costs and the price of a barrel of oil are a short term situation or a paradigm shift in the construction industry. Only time will tell if the short term inflation rate around 25% in the construction sector will stabilize at its historic 3-4% or not.

REVENUE SOURCES

Federal Funding

Since 1956, the primary mechanism for a federally funded transportation program has been the Highway Trust Fund (HTF). For years the HTF maintained a surplus. The transportation industry called on Congress to spend down the surplus, thereby releasing more funding for transportation improvements. With the passage of the "Safe, Accountable, Flexible, and Efficient Transportation Equity Act – a Legacy for Users" (SAFETEA-LU) on August 10, 2005, Congress listened. SAFTETEA-LU guaranteed $ 286.4 billion in funding between 2004 and 2009. Even after multiple rescissions, the HTF, under the pressure of escalating materials costs and the destabilization of oil prices, is in financial crises. In September of 2008, Congress transferred $ 8 billion into the HTF to keep it solvent. On June 24, 2009, the U.S.

Department of Transportation notified every state transportation agency that the HTF would experience a second cash shortfall unless action was taken by Congress. On August 7, 2009, the U.S. Treasury Department deposited an additional $ 7 billion into the HTF. With no new federal transportation legislation, an additional $ 8 to $ 10 billion will be needed in 2010 to prevent the HTF from running out of money.

The Transportation and Infrastructure Committee of the U.S. House of Representatives released a proposed new federal highway bill that calls for a $ 450 billion funding level, a 38 % increase over the $ 286.4 billion in SAFETEA-LU. Two big questions remain: when will a new federal highway bill be passed and how will it be funded?

While the House Transportation and Infrastructure Committee has taken the first steps toward passage of a new federal transportation bill, neither the Senate nor the Executive branch have followed and SAFETEA-LU is set to expire on September 30, 2009. The Obama administration has announced a preference for an eighteen (18) month extension of SATETEA-LU and the Senate has yet to start on draft legislation. This is basically a "Do Nothing" approach until 2011. This course of action will result in a $ 90.4 billion shortfall between 2010 and 2015 according to the U.S. House Draft Surface Transportation Authorization Act of 2009 as depicted in **Graph 9.1.**

Methods to increase funding for transportation have been addressed extensively but amidst the current economic circumstances and a federal deficit in the range of multiple trillions of dollars, there is significant resistance to implementing any of the solutions. Because we primarily fund all transportation through motor fuels taxes, there are three (3) realities that must be faced. First, the motor fuels tax is a declining revenue source and will not support and increase in funding over the long-term. Second, a reduction in the number of miles driven and continuing improvements in fuel efficiency have the combined effect of reducing the tax revenue that funds transportation. Lastly, the federal motor fuels tax ($ 0.184 per gallon for gasoline and $ 0.244 per gallon for diesel) has not changed since 1993 and there is great opposition to increasing the tax rate per gallon or indexing it to inflation.

Federal Funding Programs for Streets and Highways

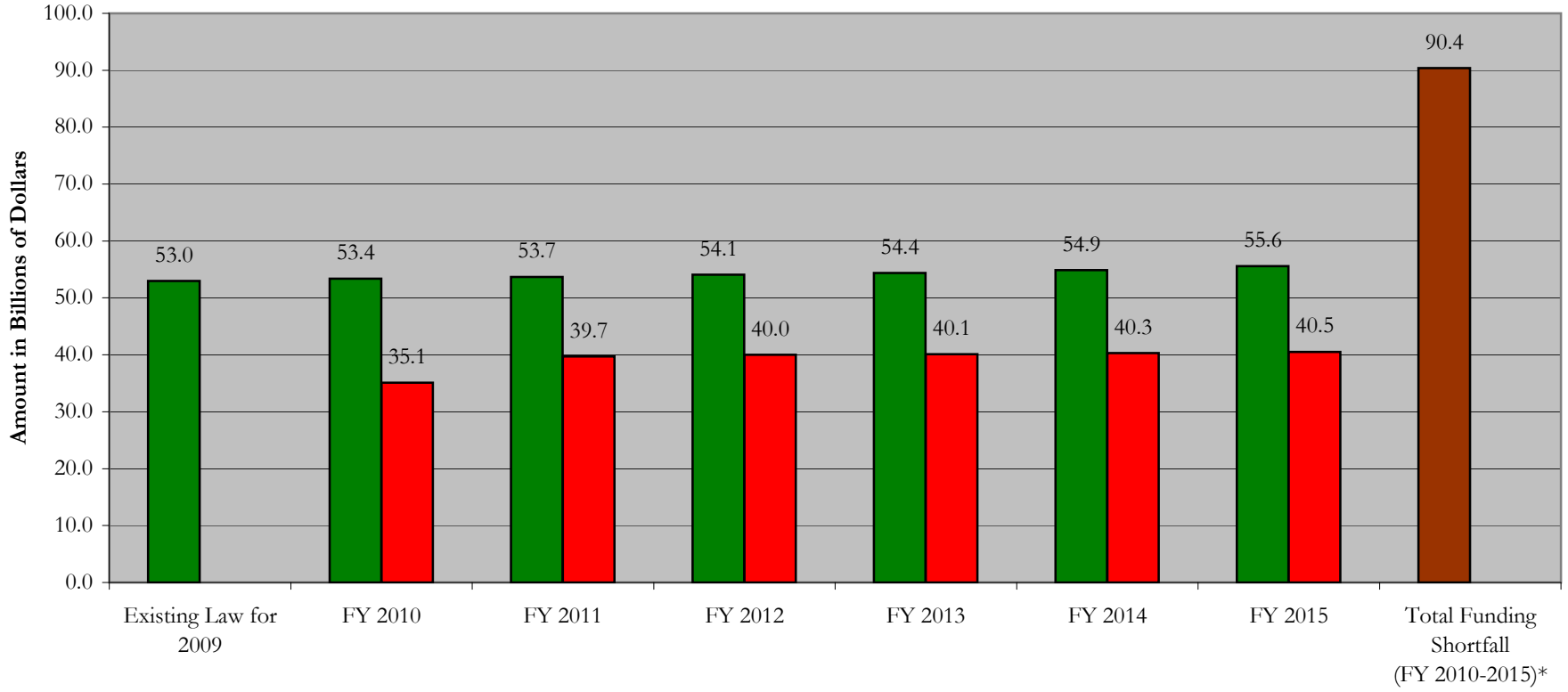
Interstate Maintenance (IM): This funding category provides for the maintenance of the Interstate Highway System to a specified design standard. Up to 20% of these funds may be transferred to the National Highway System (NHS) at the discretion of the State.

National Highway System (NHS): This category is intended to address the mobility needs on the NHS throughout the state. Projects funded under this category are selected by AHTD on a statewide priority.

Surface Transportation Program (STP), Safety: This category of funds provides that 10% of all STP funds apportioned to the state be dedicated to safety improvement projects. Safety projects are prioritized on a statewide basis. These funds may be used to improve all functionally classified streets within the urbanized area (collectors through freeways).

"Do Nothing" Funding Scenario

Highways, Highway Safety, and Transit Funding with No Increase in Trust Fund Revenues
(FY 2010 - FY 2015)
July 23, 2009



Current Program Total: $326.1 billion (FY 2010-FY 2015)

"Do Nothing" Scenario Total: $235.7 billion (FY 2010-FY 2015)

Existing Law and Baseline | No increase in Revenue

* The Total Funding Shortfall represents the difference between the current program funding levels and the funding levels that can be supported with no revenue increase.

This page intentionally left blank.

Surface Transportation Program (STP), Transportation Enhancement: This funding category is used to address projects that are above and beyond what could normally be expected in the way of enhancements to the transportation system. All projects must be developed in accordance with applicable federal and state environmental requirements. Transportation Enhancement projects are prioritized on a statewide basis. All functionally classified streets within the urbanized area (collectors through freeways) can be improved using these funds.

Surface Transportation Program (STP), Urban Mobility / Rehabilitation: This category is intended to address mobility or rehabilitation needs in those urbanized areas with a population between 5,000 and 200,000. These funds can be spent on any roadway with a functional classification greater than a local road in urban areas or a rural minor collector. Projects require the approval and concurrence of the MPO.

Surface Transportation Program (STP), Rural Mobility / Rehabilitation: Funds from this category are used to address mobility or rehabilitation needs in rural areas. Projects programmed in this category must be in cities of less than 5,000 people or outside any city limits.

Bridge Replacement and Rehabilitation Program: This category is used to address the replacement or rehabilitation of bridges in the state.

Special Allocation: All special funding approved by Congress such as High Priority Projects, Public Lands, Stimulus Funds, etc.

The Texas Department of Transportation has grouped the various Federal programs under two (2) major programs: Statewide Preservation Program (SPP) and Statewide Mobility Program (SMP). Each of these programs includes multiple funding categories as described below.

Statewide Preservation Program (SPP):

- Category 1 - Preventive Maintenance and Rehabilitation: Funding for preventive maintenance and rehabilitation of the existing state highway system. These funds may be used on the Interstate Highway System travel lanes, frontage roads, structures, signs, pavement markings, striping, etc.
- Category 6 – Structure Replacement and Rehabilitation: Funding to replace or rehabilitate eligible bridges on and off the state highway system (functionally obsolete or structurally deficient).
- Category 8 – Safety: Funding related to projects on and off the state highway system. Projects are evaluated using three years of crash data and ranked according to the Safety Improvement Index.

The SPP also contains information on two (2) highway maintenance programs and waterway and railroad preservation projects. These programs and projects represent efforts to maintain the existing transportation system.

Statewide Mobility Program (SMP):

- Category 2 – Transportation Management Area (TMA) Corridor Projects: Funding is intended to address the mobility needs in all major metropolitan areas (greater than 200,000 in population) throughout the state.

- Category 3 – Urban Area Corridor Projects: funding is intended to address the mobility needs in all metropolitan areas (areas with populations between 50,000 and 200,000) throughout the state. Funds will be used to develop and improve entire corridors of independent utility, whenever possible. Projects in this category must have the concurrence and support of the MPO.

- Category 4 – Statewide Connectivity Corridor Projects: Funding is intended to address mobility and added capacity project needs on major state highway system corridors which provide statewide connectivity between urban areas and corridors. The highway connectivity network in composed of the Texas Trunk System; NHS; and connections from the Texas Trunk System or NHS to major ports on international borders or Texas water ports.

- Category 5 – Congestion Mitigation and Air Quality (CMAQ) Improvement: Funding is used for projects that address the attainment of a national ambient air quality standard in the non-attainment areas of the state.

- Category 7 – Metropolitan Mobility and Rehabilitation: Funding is to address transportation needs within the metropolitan area boundaries of MPOs having populations of 200,000 or greater.

- Category 9 – Transportation Enhancements: Funding is to address projects that are above and beyond what could normally be expected in the way of enhancements to the transportation system. Projects programmed in this category must fall under one of the following general activities as outlined in SAFETEA-LU:

    1. Provision of facilities for pedestrians and bicycles.
    2. Provision of safety and educational activities for pedestrians and bicyclists.
    3. Acquisition of scenic easements and scenic or historic sites (including historic battlefields).
    4. Scenic or historic highway programs (including the provision of tourist and welcome canter facilities).
    5. Landscaping and other scenic beautification.
    6. Historic preservation.
    7. Rehabilitation and operation of historic transportation buildings, structures, or facilities (including historic railroad facilities and canals).

8. Preservation of abandoned railway corridors (including the conversion and use of the corridors for pedestrian or bicycle trails).
9. Inventory, control, and removal of outdoor advertising.
10. Archaeological planning and research.
11. Environmental mitigation to address water pollution due to highway runoff; or reduce vehicle-caused wildlife mortality while maintaining habitat connectivity.
12. Establishment of transportation museums.

- Category 10 – Supplemental Transportation Projects: Funding is to address projects that do not qualify for funding in other categories. Most of the programs are state funded; however, federal funds are involved in some programs as noted above. Projects in this category must have the concurrence of the MPO if located within their area of jurisdiction.

- Category 11 – District Discretionary: This category is used to address projects selected at the district engineer's discretion. Most projects should be on the state highway system. However, some projects may be selected for construction off the state highway system on roadways with a functional classification greater than a local road or rural minor collector. Funds from this program should not be used for right-of-way acquisition. Projects in this category must have the concurrence and support of the MPO having jurisdiction in the particular area.

- Category 12 – Strategic Priority: The Commission has determined that money from this category will be used on an "as needed" basis, for projects with specific importance to the state. These projects will generally promote economic opportunity, increase efficiency on military deployment routes or to retain military assets in response to the federal military base realignment and closure report, or maintain the ability to respond to both man-made and natural emergencies. In addition, the Commission is also committed to utilize the Category 12 funds to help communities utilize the new financing tools, like pass-through financing agreements, in order to help local communities address their transportation needs.

The SMP documentation also contains information regarding the Aviation Capital Improvement Program and the Public Transportation Program.

Federal Funding Programs for Transit

SAFETEA-LU provides the authorization for the Federal Transit Administration (FTA) programs. A description of each of the FTA programs from which funding is available in the Texarkana region is provided below.

5307: The Urbanized Area Formula Grant Program subsidizes the operating and/or capital cost of transit services. Eligible expenses include planning, engineering, most administration, preventive maintenance, fuel, parts and operating

costs. This program requires a matching ratio of 80% federal and 20% local except for vehicle-related equipment attributable to compliance with the Americans with Disabilities Act and the Clean Air Act, in which case the matching ration is 90% federal and 10% local. The federal share may not exceed 50% of the total project cost for operating assistance. These funds are allocated by a formula based on population and population density for urban areas with a population between 50,000 and 199,999.

5309: The Capital Investment Program is divided into three categories: Modernization of existing rail systems, New rail systems, and New and replacement buses and facilities. The Bus category is the only one from which the Texarkana urbanized area is eligible to receive funds. These funds are used to subsidize the purchase of buses, bus-related equipment and paratransit vehicles, and for the construction of bus-related facilities. Funding under this program is available for three (3) years once allocated and is subject to a match ratio of 80% federal and 20% local.

5310: The Elderly and Persons with Disabilities Program subsidizes transportation services to elderly and disabled persons. Eligible expenses may include, at the option of the recipient, the acquisition of transportation services by contract, lease, or other arrangement. While the assistance is intended primarily for private nonprofit organizations, public bodies that coordinate services for the elderly and persons with disabilities, or any public body that certifies to the state there are no nonprofit organizations in the area that are readily available to carry out the service, may receive these funds. The funds are allocated by a formula that considers the number of elderly and disabled individuals in each state. The program has an 80% federal and 20% local match requirement.

5316: The Job Access and Reverse Commute (JARC) Program provides funding for the provision of transportation services designed to increase access to jobs and employment-related activities. Job Access projects are those which transport welfare recipients and low-income individuals in urban, suburban, or rural areas to and from jobs and activities related to their employment. Reverse Commute projects provide transportation service for the general public from urban, suburban, and rural areas to suburban employment opportunities.

All projects funded under this program must be derived from an area-wide JARC Transportation Plan and a Regional Public Transportation Coordination Plan developed through a regional approach which supports the implementation of a variety of transportation services designed to connect welfare recipients to jobs and related activities. A key element of the program is making the most efficient use of existing public, nonprofit, and private transportation service providers. The JARC program has three (3) match ratios: Capital expenses require an 80% federal and 20% local match, Operating expenses require a 50% federal and 50% local match, and 100% federal for up 10% of the program recipients' total Administration expenses.

5317: The New Freedom Program is designed for people with disabilities beyond the requirements of the Americans with Disabilities Act (ADA) of 1990.

Program goals include:

- Increase access to assistive and universally designed technologies;
- Expand educational opportunities;
- Promote homeownership;
- Integrate Americans with disabilities into the workforce;
- Expand transportation options; and
- Promote full access to community life.

All projects funded under this program must be derived from an area-wide Regional Public Transportation Coordination Plan developed through a regional approach which supports the implementation of any project. Funds are available on an 80% federal and 20% local match basis for capital projects and a 50% federal and 50% local match basis for operating assistance.

Special Federal Funding Programs

Special federal funding includes the American Recovery and Reinvestment Act (ARRA) of 2009 as well as congressional ear-mark funding for specific projects and other programs.

The Texarkana region received $ 36 million in ARRA funds through Arkansas and $ 2.3 million through Texas for highway projects and a combined $ 1.08 million from Arkansas and Texas for the transit system.

State Funding

Arkansas

The State of Arkansas funding for highway projects is derived primarily from state motor fuel taxes and vehicle registration fees.

In 2009, the State of Arkansas passed Act 374 creating the Blue Ribbon Committee on Highway Finance. The Blue Ribbon Committee's charge is to define an adequate system for financing improvements to the state's highways, county roads, and city streets. The ultimate goal is to propose highway finance legislation that can be brought before the General Assembly in the 2011 legislative session.

Texas

There are two (2) traditional sources of revenue used for transportation in the State of Texas, the General Fund and the State Highway Fund. The state General Fund relies on revenues from the state sales tax, franchise tax, motor vehicle sales tax, alcohol and tobacco taxes, oil production tax, and natural gas tax, as well as other revenues. Revenue from the non-dedicated portion of the General Fund typically accounts for less than 1% of the state's financial contribution to transportation.

In the 2003 Texas legislative session toll and bond revenues were made available as funding sources for transportation. In the 2007 legislative session, the development of toll facilities and the use of toll revenues they would generate were challenged. Toll revenue as a source of funding for transportation projects is still a topic of disagreement. In the 2009 legislative session, legislation necessary for the continued development of toll projects was not passed but additional bond revenues were made available.

Local Funding

At the local level, the main source of funding for transportation projects and infrastructure remains general obligation bonds. The use of bonds will continue as long as debt is relatively inexpensive and the public continues to oppose city property tax rate increases. Challenges in funding the needs of the transportation system in the Texarkana MPO and its member agencies include:

- No major dedicated transportation funding source.
- Dependence on traditional funding sources for roadway maintenance programs.
- Competing interest for limited local dollars (i.e., crime, education and other social issues versus transportation).
- Inability to accurately project revenues and budget allocations for capital and maintenance programs.
- Lack of alternative transportation funding mechanisms to supplement and leverage federal and state funds.
- Reliance on increased property values to generate additional revenue as opposed to an increase in the property tax rate.

To reduce or minimize the amount of MPO member agencies' bond indebtedness, the following new sources of revenue should be considered:

1. Dedicated Revenue Source – Creation of a not-for-profit 503C, the Texarkana Freight Authority, that would operate an intermodal freight transfer/warehousing facility. Revenue generated by this authority could be dedicated to funding local and regional transportation projects or leveraging state and federal transportation funding for projects.

2. Dedicated Transportation Sales Tax – Legislative approval would be required to increase sales tax ceiling where applicable. Action would be required by local elected officials and voter approval on specific actions may be required. Revenues could be used as collected over time for capital and maintenance programs, or used to back revenue-based transportation bonds to complete capital and maintenance projects (including funding maintenance reserves) on an accelerated basis.

3. Dedicated Infrastructure Property Tax – Action would be required by local elected officials and voter approval on specific actions may be required. Revenue could be used for capital and maintenance programs, or used to back revenue-based infrastructure bonds for projects (including reserve funds).

4. Local Option Fuel Tax – Legislative approval would be required to implement a local option fuel tax. Action by county and local elected officials as well as voter approval would be required. Revenues could be used as collected over time for capital and maintenance programs, or used to back revenue-based transportation bonds to complete capital and maintenance projects (including funding maintenance reserves) on an accelerated basis.

5. Benefit Assessment Districts – Payment of impact fees through a Benefit Assessment or Special District for the purpose of financing roadway improvements connected to residential and/or commercial developments or in development areas connected to new educational, entertainment or manufacturing facilities.

6. Transportation Reinvestment Zones – Can be implemented where property values and ad valorem assessments may increase as the result of transportation improvements. The local government agrees to apply the tax proceeds of any increased assessment to support the financing for a specified period of time, thereafter claiming the tax revenues for itself or eliminating the tax altogether.

7. Maintenance Reserve Account – Create and fund a 10-year maintenance reserve account through ad valorem taxes.

REASONABLY ANTICIPATED REVENUE ESTIMATES

Public Transit Services

Texarkana Urban Transit District

According to information provided by Vera Matthews, the General Manager for the Texarkana Urban Transit District (TUTD), the T-Line collected $ 602,842 in fare box revenue between 2006 and 2009. That averages out to $ 150,710 per year. Estimated fare box revenues over the life of this plan total $ 3.925 million **(Table 9.1)**.

TABLE 9.1:
T-LINE TRANSIT SYTEM ESTIMATED REVENUES BY SOURCE

YEARS	FARE BOX REVENUE	ARRA REVENUE	FTA 5307	LOCAL MATCH	TOTALS
2010 – 2013	$ 580,000	$ 1,080,567	$ 3,164,425	$ 2,421,000	$ 7,245,992
2014 – 2019	$ 900,000	-	$ 5,652,000	$ 2,985,000	$ 9,537,000
2020 – 2035	$ 2,445,000	-	$ 22,220,000	$ 12,213,000	$ 36,878,000
TOTALS	$ 3,925,000	$ 1,080,567	$ 31,036,425	$ 17,619,000	$ 53,660,992

In addition to the estimated fare box revenues, the T-Line can reasonably anticipate receiving $ 31.04 million in federal funds through the 5307 Urbanized Area Formula Grant Program. Additional revenue may become available through the 5309 Capital Investment Program, the 5310 Elderly and Persons with Disabilities Program, the 5316 Job Access and Reverse Commute Program, and the 5317 New Freedom Program. However, revenue from these sources could not be reasonably anticipated at this time. The 5309, 5316, and 5317 funds may be available to human services agencies through an annual application process on a statewide basis in Arkansas and Texas. T-Line is considering applying for funding through the 5316 and/or 5317 programs. 5310 funds may also be available through Arkansas on an annual statewide application basis. In Texas, the 5310 program funds are allocated to TxDOT Districts for programming and sub-allocation to human service providers on an annual basis.

The total estimate of reasonably anticipated revenue for the T-Line system, including the American Recovery and Reinvestment Act funds, 5307 Urbanized Area Formula Grant Program funds and local matching funds, between 2010 and 2035 is $ 53.7 million. An annual inflation factor of 3.5% was used to calculate the federal portion of the revenue estimate.

Ark-Tex Council of Governments (ATCOG)

ATCOG provides services to elderly persons and persons with disabilities through the Rural Transit District (TRAX) in the non-urbanized areas of the Texarkana MPO Study Area. TRAX is sub-allocated funding under the 5310 Elderly and Persons with Disabilities Program through the Atlanta District of TxDOT. Based on information provided by TxDOT, TRAX can reasonably anticipate revenues totaling over $ 4.4 million for the life of this plan. This estimate is based on a 2010 fiscal year allocation and a 3.5% inflation factor over the twenty-six (26) year plan period. TRAX can anticipate available revenues of $ 451,281 for 2010 to 2013, $ 804,764 for 2014 to 2019, and $ 3,167,225 for 2020 to 2035.

Arkansas State Highway and Transportation Department (AHTD)

AHTD provided revenue estimates for 2010 with a recommendation to use a 3.9% inflation factor through 2035 with the exception that the categories for Enhancement and STP Urban <200,000 should be held constant. Based on the information provided by AHTD, the Arkansas portion of the Texarkana region can reasonably anticipate $ 265.38 million of revenue to be available for roadways and $ 30.98 million for transit from 2010 to 2035. Additionally, there are two statewide programs from which funding may be available through a competitive grant process. These include the Recreational Trails Program and the Safe Routes to Schools program with a combined total of $ 77.45 million. **Table 9.2** shows anticipated revenues for roadways in the Texarkana region as well as statewide revenues for Recreational Trails and Safe Routes to Schools.

Table 9.2:
Anticipated Arkansas Revenues
in TUTS 2035 Plan

Revenue Source	Anticipated Revenue
Roadways	
Bridge	15,292,171
STP Enhancements	3,672,500
Interstate Maintenance	98,890,257
National Highway System	56,744,876
Safety	9,939,911
STP Equity Bonus	30,338,540
STP Urban	4,731,250
State Maintenance	45,767,282
TOTAL	**$ 265,376,788**
Recreational Trails Program*	
TOTAL	**$ 38,725,585**
Safe Routes to Schools*	
TOTAL	**$ 38,725,585**

* Statewide program allocated through annual grant application process

To address the Year-of-Expenditure (YOE) and Total Project Cost (TPC) requirements, AHTD has determined that a revenue inflation factor of 3.9% and a cost inflation factor of 7% (YOE and TPC combined) are reasonable for developing a fiscally constrained plan. These inflation values take into account financial circumstances and commitments particular to the state of Arkansas.

City of Texarkana, AR

Highway-User Revenue Turnback

Funds from this revenue source are allocated to each municipality based on a population apportionment from the most recent federal census. The revenue is generated by designated road user taxes, state motor fuel taxes, motor vehicle registration fees, title transfer fees, driver search fees, and interest income. The funds may be used for maintenance, construction, and reconstruction of city and county roads and bridges, and parking for specified county facilities. Cities may also use a specified amount for transit.

Three Mill Road Tax

The County Quorum Court may levy a county road tax on an annual basis that does not exceed three (3) mills. Revenue generated on property inside a city is evenly shared between the city and county. Revenue generated from property outside the city is for use by the county only.

Local Option Sales Tax

A county or city may initiate this tax subject to voter approval. The county or a city can levy this tax separately. These funds can be used for almost any type of development or streets.

Arkansas Community and Economic Development Program (ACEDP)

This funding source can be used for street, bridge, and drainage projects within cities and counties. The funds are available through the Arkansas Department of Economic Development on a competitive basis and eligibility requirements restrict their use for meeting street improvement needs citywide or countywide.

Revenue Bonds

Improvements on the local road system can be financed by cities and counties through these bonds. A dedicated revenue source is required to pay back the bonds and the sale of the bonds is subject to voter approval.

Project funding for the City of Texarkana, AR is based on Capital Improvement expenditures that are historically funded by Revenue Bonds. The same cost inflation factors used for AHTD projects were applied to local Arkansas projects.

Texas Department of Transportation (TxDOT)

Financial data provided to the Texarkana MPO by TxDOT indicates that $ 168.37 million of federal and state transportation funds were obligated in the Texarkana Metropolitan Area between 2004 and 2009. However, the IH 30 Corridor project accounted for $ 133.39 million (79%) of the total amount. It is not reasonable to anticipate that funding for a project of this scope will be available on average every six years. After excluding the IH 30 Corridor funding, the average obligation per year was determined to be $ 5.83 million.

To account for the impact of inflation on the transportation planning process, TxDOT has adopted FHWAs recommended revenue inflation factor of 3% based on the Consumer Price Index and a cost inflation factor of 4% based on a thirty (30) year average Construction Cost Index. These inflation factors have been used to produce a fiscally constrained plan based on Year-of-Expenditure (YOE) dollars. To address the Total Project Cost (TPC) requirement, TxDOT has developed estimates that take into account right-of-way, preliminary engineering, construction engineering, bond financing, contingencies, and indirect costs, if they apply. A TPC factor of 28% was applied to the YOE cost estimates for roadways and bridges and a 6% TPC was applied to bicycle and pedestrian projects.

The following assumptions have been used in the development of a fiscally constrained plan:

- Revenue will be held flat for 2010 and 2011.
- District Discretionary funds (CAT 11) will not be available prior to 2015.
- Revenue increases at 3% each year from 2012 to 2035, except for CAT 11.
- CAT 11 funding remains flat from 2015 to 2035.
- One major project is anticipated over the life of the plan, therefore a single time infusion of $ 50 million is included under CAT 3 in 2020.
- Includes $ 1,713,000 of American Recovery and Reinvestment Act 2009 funds allocated to a project.
- Safety (CAT 8), Supplemental Transportation Projects (CAT 10), and District Discretionary (CAT 11) revenues were increased one time by 28% to offset the Total Project Cost factor because these costs items are not accounted for in the construction cost estimate.
- Transportation Enhancements (CAT 9) revenues were not increased to account for the 6% TPC factor because this is a statewide grant program and the TPC factors are included in the construction cost estimates.

This process results in an anticipated revenue estimate of $ 252.39 million being available from 2010 to 2035 as shown in **Table 9.3**.

Table 9.3
Anticipated Texas Revenues
in TUTS 2035 Plan

Revenue Source	Anticipated Revenue
Roadways and Bridges	
Preventive Maintenance and Rehabilitation (CAT 1)	46,318,536
Urban Area Corridor Projects (CAT 3)	50,000,000
Statewide Connectivity Corridor Projects (CAT 4)	0
Structure Replacement and Rehabilitation (CAT 6)	6,519,429
Safety* (CAT 8)	85,427,684
Transportation Enhancements** (CAT 9)	2,065,348
Supplemental Transportation Projects* (CAT 10)	26,741,527
District Discretionary* (CAT 11)	33,600,000
Strategic Priority (CAT 12)	0
American Recovery and Reinvestment Act 2009	1,713,000
TOTAL	**$ 252,385,524**
Safe Routes to Schools* **	
TOTAL	**$ 351,000,000**

* Includes 28% revenue increase to offset Total Project Cost factor of 28% because the Individual cost items are not accounted for in the construction cost estimate.

** Statewide program based on grant applications, estimate is based on receipts to the Texarkana region between 2006 and 2009.

*** Statewide program allocated through annual grant application process

City of Texarkana, TX

The city anticipates the continued use of General Obligation Bonds and Certificates of Obligation to fund projects. The same cost inflation factor used for TxDOT projects were applied to the City of Texarkana, TX projects. However, the City of Texarkana, TX determined that a Total Project Cost factor of 2.5% was more reasonable for their program.

10 PROPOSED TRANSPORTATION PROJECTS

10 PROPOSED TRANSPORTATION PROJECTS

PROJECT SELECTION METHODOLOGY

Streets and Highways Projects

To initiate the process of identifying transportation projects that would be considered for inclusion in the *TUTS 2035 PLAN*, the MPO issued a request for projects from the general public and agencies involved in developing and funding transportation projects. No project submittals were received from the general public. Agencies that submitted projects included the Arkansas State Highway and Transportation Department (AHTD), the Texas Department of Transportation (TxDOT), the City of Texarkana, Arkansas, the City of Texarkana, Texas, The City of Nash, Texas, Bowie County, the Texarkana Urban Transit District (TUTD), and the Texarkana Regional Airport. After formulation of the list of proposed projects, the projects were presented at a workshop to members of the Technical Committee who prioritized the projects based on need. At a subsequent workshop, Technical Committee members reprioritized the projects based on need and anticipated revenue estimates within the planning period time frames; 2010 – 2013, 2014 – 2019, and 2020 - 2035. The prioritized list of transportation projects were presented to the public during the public participation process for review and comment. The prioritized list of proposed transportation projects is presented in **Tables 10.1a-10.1d, 10.2a – 10.2c, 10.3a – 10.3d, 10.4a – 10.4d, and 10.5a** and illustrated by planning period time frames on **Maps 10.1, 10.2, and 10.3.**

Bicycle and Pedestrian Projects

Bicycle and pedestrian projects presented in this plan were identified through a public participation process for the development of the Texarkana Master Bicycle and Pedestrian Plan. The prioritization of the projects was completed by MPO staff, the consultant, Alliance Transportation Group, Inc., and staff members from MPO member agencies. The prioritization was based on input received from citizens during public meetings and the amount of anticipated funding. The proposed bicycle and pedestrian projects are presented in **Tables 10.6a – 10.6c** and **10.7a – 10.7c** for Arkansas and Texas, respectively. The projects are shown by planning period time frames on **Maps 10.4, 10.5, and 10.6.**

TUTD Transit Projects

The capital improvement plan for T-Line was provided to the MPO by Vera Mathews, T-Line General Manager. T-Line is primarily funded through the Federal Transit Administrations 5307 program. Over the life of this plan, T-Line anticipates expending funds on the activities shown in **Tables 10.8a – 10.8c**.

Texarkana Regional Airport Projects

The capital improvement plan for Texarkana Regional Airport was provided to the MPO by Stephen Luebbert, Airport Director. Over the life of this plan, the Texarkana Regional Airport anticipates expending funds on activities shown in **Tables 10.9a – 10.9b**. These activities are also illustrated on **Map 10.7**.

Grouped Projects

For projects that are not determined to be regionally significant, the FHWA has allowed TxDOT to develop statewide groupings of projects that are identified by a statewide CSJ. Use of statewide groupings of projects allows for a more efficient method of programming and letting projects and decreases the need to make revisions to the Transportation Improvement Program (TIP). Following is a list of the statewide groupings of projects with a description of the type of projects that are placed in each grouping:

- Preliminary Engineering –Includes activities which do not involve or lead directly to construction such as planning and technical studies and grants for training and research programs.
- Right of Way Acquisition - Includes relocation assistance, hardship acquisition and protective buying.
- Preventive Maintenance and Rehabilitation –Includes pavement repair to preserve existing pavement so that it may achieve its designed loading, seal coats, overlays, resurfacing, restoring and rehabilitation done within existing ROW. Also includes modernization of a highway by reconstruction, adding shoulders or non-added capacity auxiliary lanes.
- Bridge Replacement and Rehabilitation – Projects to replace and/or rehabilitate functionally obsolete or structurally deficient bridges.
- Railroad Grade Separations – Projects to construct or replace existing highway-railroad grade crossings and to rehabilitate and/or replace deficient railroad underpasses, resulting in no added capacity.
- Safety – Includes the construction or replacement/rehabilitation of guard rails, median barriers, crash cushions, pavement markings, skid treatments, medians, lighting improvements, railroad/highway crossing warning devices, fencing, intersection improvements, signal projects and interchange modifications. Also includes projects funded via the Federal Hazard Elimination Program and the Federal Railroad Signal Safety Program.
- Landscaping – Projects consisting of typical right-of-way landscape development, establishment and aesthetic improvements to include any associated erosion control and environmental mitigation activities.
- Intelligent Transportation Systems Deployment – Highway traffic operation improvement projects including installation of ramp metering control devices, variable message signs, traffic monitoring equipment and projects in the Federal ITS/IVHS programs.
- Bicycle and Pedestrian – Construction or rehabilitation of bicycle and pedestrian lanes, paths and facilities.
- Transit Improvements – Includes the construction and improvement of small passenger shelters and information kiosks, the construction and improvement of rail storage/maintenance facilities, bus transfer facilities where minor amounts of land are required and there is not a substantial increase in the number of users.

PROPOSED STREETS AND HIGHWAYS PROJECTS

Arkansas State Highway and Transportation Department (AHTD)

Table 10.1a: 2010 to 2013 Constrained Project List for AHTD

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
US 71 (IH 49)	From Arkansas Boulevard at SH 245 to IH 30 New highway location - base and surfacing	238	030325	Federal (ARRA 2009) (see note A below)	36,000,000	2009	36,000,000	36,000,000
US 71 (IH 49)	From Louisiana to DeQueen, AR New highway location (proposed IH 49)	236 238	030X02	Federal and State (see note B below)	2,000,000	2010	2,000,000	2,200,000
US 71 (IH 49)	From DeQueen, AR to Texarkana New highway location (proposed IH 49)	236 238	030X03	Federal and State (see note B below)	25,400,000	2010	25,400,000	27,940,000
US 71 (IH 49)	From Mena, AR to Louisiana State Line New highway location (proposed IH 49)	236 238	030X04	Federal and State (see note B below)	3,225,000	2010	3,225,000	3,547,500
US 71 (IH 49)	From US 71 (State Line Avenue) to IH 30 New highway location - base and surfacing	236	030326	Federal and State (see note A below)	21,000,000	2010	21,000,000	21,000,000
US 82 (East 9th Street)	From SH 245 to SH 237 (Rondo Road) Reconstruct from 2 lanes to 5 lanes	244	030349	Federal and State (see note A below)	5,000,000	2010	5,000,000	5,000,000
McDonald Lane	From Jefferson Avenue to Mount Olive Drive Construct new 2 lane road	230	030100	Federal and Local	1,100,000	2010	1,177,000	1,177,000
Various	Inside Study Area Boundary Routine Maintenance	297	n/a	Federal and State	2,634,000	2012	3,226,763	3,226,763
CR 228	At Adams Creek Bridge Replace structure	221	n/a	Federal and Local	136,000	2012	166,606	166,606
US 71 (East Street)	At US 67 (East Broad Street)/Union Pacific Railroad bridge Replace structure	222	n/a	Federal and State	9,377,000	2013	12,291,334	12,291,334
				Total 2010 to 2013 Projects	**13,247,000**		**16,861,703**	**16,861,703**

A: These projects are shown as funding sources only. The costs associated with them are not included in the financial constraint evaluation because they are funded with prior years obligations.

B: These projects are shown as funding sources only. The costs associated with them are not included in the financial constraint evaluation because construction activities are not within the MPO Study Area.

Table 10.1b: 2014 to 2019 Constrained Project List for AHTD

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
IH 30/SH 245 and US 82	At IH 30, SH 549 and US 82 (East 9th Street) Gateway landscaping	235	n/a	Federal and Local	36,700	2014	51,474	51,474
Various	Inside Study Area Boundary Routine Maintenance	298	n/a	Federal and State	2,634,000	2016	4,229,628	4,229,628
US 67	At Nix Creek Bridge Replace structure	224	n/a	Federal and State	544,000	2017	934,693	934,693
IH 30	US 71 (State Line Avenue) to proposed IH 49 Widen from 4 lanes to 6 lanes	220	n/a	Federal and State	13,000,000	2018	23,899,970	23,899,970
IH 30	US 71 (State Line Avenue) to proposed IH 49 Reconstruct 4 lanes	220	n/a	Federal and State	6,700,000	2018	12,317,677	12,317,677
CR 70	From SH 196 to north Reconstruct 2 lane road	214	FA4605	Federal and State	408,000	2019	802,598	802,598
				Total 2014 to 2019 Projects	**23,322,700**		**42,236,040**	**42,236,040**

Table 10.1c: 2020 to 2035 Constrained Project List for AHTD

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
SH 108	At IH 30 Replace structure with 4 lane bridge	228	n/a	Federal and State	7,213,000	2020	15,182,297	15,182,297
Various facilities	Inside Study Area Boundary Routine Maintenance	299	n/a	Federal and State	8,429,000	2027	28,489,449	28,489,449
SH 296 (Sugar Hill Road)	At IH 30 Replace structure	216	n/a	Federal and State	7,700,000	2027	26,025,479	26,025,479
IH 30	Proposed IH 49 to SH 108 Reconstruct 4 lanes	245	n/a	Federal and State	8,000,000	2027	27,039,458	27,039,458
IH 30	Proposed IH 49 to SH 108 Widen from 4 lanes to 6 lanes	246	n/a	Federal and State	17,000,000	2027	57,458,849	57,458,849
IH 30	US 71 (State Line Avenue) to SH 108 Routine Maintenance	290	n/a	Federal and State	4,800,000	2027	16,223,675	16,223,675
				Total 2020 to 2035 Projects	**53,142,000**		**170,419,207**	**170,419,207**
				Total 2010 to 2035 Cost Estimates	**89,711,700**		**229,516,949**	**229,516,949**
				Total 2010 to 2035 Anticipated Funding				**230,899,372**
				Balance of Funds				**1,382,423**

Table 10.1d: Unconstrained Project List for AHTD

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
SH 237 (Rondo Road)	From US 71 (East Street) to US 82 (East 9th Street) Reconstruct existing 2 lane road	215	n/a	Federal and State	n/a	2036	n/a	n/a
SH 237 (Rondo Road)	From US 71 (East Street) to US 82 (East 9th Street) Widen 2 lanes to 3 lanes	234	n/a	Federal and State	n/a	2036	n/a	n/a
SH 245	At US 67/Union Pacific Railroad Bridge Replace structure	226	n/a	Federal and State	n/a	2036	n/a	n/a
SH 196 (Division Avenue)	From US 71 (East Street) to SH 245 Reconstruct 2 lanes to 3 lanes	219	n/a	Federal and State	n/a	2036	n/a	n/a
				Total Unconstrained Projects	**n/a**		**n/a**	**n/a**

City of Texarkana, Arkansas

Table 10.2a: 2010 to 2013 Constrained Project List for Texarkana, AR

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Crossroad Parkway	From US 71 (State Line Avenue) to McDonald Lane Construct new 4 lane road	324	n/a	Federal (ARRA/TIGER) (see note A below)	1,815,000	2010	1,942,050	1,942,050
IH 30 frontage road	From SH 245 to Sammy Lane Construct new 2 lane south frontage road	346	n/a	Federal (ARRA/TIGER) (see note A below)	2,805,000	2010	3,001,350	3,001,350
IH 30 frontage road	From SH 245 to Jefferson Avenue Construct new 2 lane south frontage road	347	n/a	Federal (ARRA/TIGER) (see note A below)	3,630,000	2010	3,884,100	3,884,100
SH 549 frontage road	From SH 245 to proposed IH 30 south frontage road Construct new 2 lane west frontage road	355	n/a	Federal (ARRA/TIGER) (see note A below)	5,115,000	2010	5,473,050	5,473,050
East 54th Street	From SH 245 to Clay Pit Road and Sammy Lane Reconstruct 2 lane to 3 lane road	356	n/a	Federal (ARRA/TIGER) (see note A below)	2,310,000	2010	2,471,700	2,471,700
Clay Pit Road & Sammy Lane	From south of East 50th Street to north end of Sammy Lane Reconstruct 2 lane to 3 lane road	357	n/a	Federal (ARRA/TIGER) (see note A below)	1,815,000	2010	1,942,050	1,942,050
Phillips Lane	From US 71 (East Street) to South State Line Avenue Reconstruct 2 lane to 3 lane road	309/338	n/a	Local	2,131,000	2010	2,280,170	2,280,170
Tennessee Road	From SH 196 (Genoa Road) to east of SH 245 Reconstruct 2 lane to 3 lane road	308	n/a	Local	1,475,000	2010	1,578,250	1,578,250
IH 30 frontage road	From SH 245 to Trinity Boulevard Construct new 2 lane north frontage road	348	n/a	Local	528,000	2012	646,823	646,823
IH 30 frontage road	From SH 296 (Sugar Hill Road) to SH 108 Construct new 2 lane north frontage road	349	n/a	Local	2,376,000	2013	3,114,451	3,114,451
IH 30 frontage road	From SH 296 (Sugar Hill Road) to Sammy Lane/E. 58th Street Construct new 2 lane north frontage road	350	n/a	Local	792,000	2013	1,038,150	1,038,150
IH 30 frontage road	SH 296 (Sugar Hill Road) to SH 108 Construct new 2 lane south frontage road	351	n/a	Local	2,376,000	2013	3,114,451	3,114,451
				Total 2010 to 2013 Projects	**9,678,000**		**11,772,296**	**11,772,296**

A: These projects are shown as funding sources only. The costs associated with them are not included in the financial constraint evaluation because they are funded by ARRA/TIGER grant funds.

Table 10.2b: 2014 to 2019 Constrained Project List for Texarkana, AR

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
IH 30 frontage road	From SH 296 (Sugar Hill Road) to Sammy Lane Construct new 2 lane south frontage road	352	n/a	Local	2,376,000	2014	3,332,463	3,332,463
SH 549 frontage road	From US 71 (East Street) to SH 237 (Blackman Ferry Road) Construct new 2 lane east frontage road	322	n/a	Local	3,168,000	2015	4,754,314	4,754,314
SH 549 frontage road	From SH 237 (Blackman Ferry Road) to Line Ferry Road Construct new 2 lane west frontage road	323/343	n/a	Local	3,168,000	2017	5,443,214	5,443,214
SH 245 frontage road	From South State Line Avenue to Line Ferry Road Construct new 2 lane south frontage road	344	n/a	Local	1,056,000	2019	2,077,312	2,077,312
				Total 2014 to 2019 Projects	**9,768,000**		**15,607,302**	**15,607,302**

Table 10.2c: 2020 to 2035 Constrained Project List for Texarkana, AR

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Arkansas Boulevard	From US 71 (State Line Avenue) to US 67 (East Broad Street) Reconstruct 4 lane to 5 lane road	353	n/a	Local	8,459,000	2020	17,804,943	17,804,943
South State Line Avenue	From Euclid Street to TWU sewer treatment plant Reconstruct 2 lane to 4 lane road	318	n/a	Local	3,210,000	2021	7,229,535	7,229,535
McDonald Lane	From Forest Bend Lane to SH 245 Construct new 2 lane road	354	n/a	Local	900,000	2022	2,168,861	2,168,861
				Total 2020 to 2035 Projects	**12,569,000**		**27,203,338**	**27,203,338**
				Total 2010 to 2035 Cost Estimates	**32,015,000**		**54,582,936**	**54,582,936**
				Total 2010 to 2035 Anticipated Funding				**60,000,000**
				Balance of Funds				**5,417,064**

Texas Department of Transportation (TxDOT)

Table 10.3a: 2010 to 2013 Constrained Project List for TxDOT

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Various	Inside Study Area Boundary Routine State Maintenance (CAT 1)	47	n/a	Federal and State	5,058,415	2010 to 2013	5,058,415	5,058,415
Various	Inside Study Area Boundary Replace deficient bridges (CAT 6)	48	n/a	Federal and State	711,982	2010 to 2013	711,982	711,982
SH 93 (Lake Drive)	At Union Pacific Railroad Construct railroad grade separation structure and approaches	3	0218-01-070	Federal, State, and Local (see note A below)	5,376,396	2010	5,591,452	7,157,058
				Total 2010 to 2013 Projects	**11,146,793**		**11,361,849**	**12,927,455**

A: $1,713,000 of construction funding provided under ARRA 2009 (Stimulus)

Table 10.3b: 2014 to 2019 Constrained Project List for TxDOT

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Various	Inside Study Area Boundary Routine State Maintenance (CAT 1)	49	n/a	Federal and State	8,739,866	2014 to 2019	8,739,866	8,739,866
Various	Inside Study Area Boundary Replace deficient bridges (CAT 6)	50	n/a	Federal and State	1,230,154	2014 to 2019	1,230,154	1,230,154
FM 2240	From FM 559 to FM 1397 Reconstruct 2 lane urban roadway to 4 lane divided (flush median)	6	2879-02-007	Federal, State and Local	13,013,000	2015	16,465,596	21,075,963
IH 30	At FM 2878 Construct overpass and approaches	2	0610-07-084	Federal and State	4,164,000	2018	5,926,670	7,586,138
FM 2878	From IH 30 to US 82 in Nash, Texas Extend 2 lane Farm to Market road	25	2878-01-009	Federal and State	3,058,000	2018	4,352,488	5,571,184
				Total 2014 to 2019 Projects	**30,205,020**		**36,714,774**	**44,203,306**

Table 10.3c: 2020 to 2035 TxDOT Constrained Project List for TxDOT

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Various	Inside Study Area Boundary Routine State Maintenance (CAT 1)	51	n/a	Federal and State	32,520,255	2020 to 2035	32,520,255	32,520,255
Various	Inside Study Area Boundary Replace deficient bridges (CAT 6)	52	n/a	Federal and State	4,577,293	2020 to 2035	4,577,293	4,577,293
US 59	From 0.1 mile north of Union Pacific Railroad to 0.1 mile south of Union Pacific Railroad Construct 2-lane frontage roads over Union Pacific Railroad	39	0218-02-032	Federal and State	6,000,000	2020	9,236,724	11,823,007
FM 989	From IH 30 south frontage road to 0.5 mile south of US 82 Widen from existing 4-lanes to 6-lanes	38	1231-01-040	Federal and State	4,400,000	2023	7,619,376	9,295,639
US 82 W	From 0.2 mile west of US 59 to 0.7 mile west of FM 989 Widen from existing 2-lanes to 4-lanes with flush median	7	0046-06-040	Federal and State	15,000,000	2026	29,218,507	35,646,579
US 67	From 0.2 mile west of FM 989 to FM 2148 (S) Widen from existing 4 lane to 4 lanes with flush median	12	0010-13-056	Federal and State	17,700,000	2029	38,782,880	47,315,113
FM 2878	From FM 559 to FM 1297 Widen from existing 2 lanes to 4 lanes with flush median	16	n/a	Federal and State	6,000,000	2032	14,788,293	18,929,015
FM 1297	From FM 559 to FM 2878 Widen from existing 2 lanes to 4 lanes with flush median	11	n/a	Federal and State	6,400,000	2035	17,743,807	22,712,072
				Total 2020 to 2035 Projects	**92,597,548**		**154,487,136**	**182,818,974**
				Total 2010 to 2035 Cost Estimates	**133,949,361**		**202,563,759**	**239,949,735**
				Total 2010 to 2035 Anticipated Funding				**250,320,177**
				Balance of Funds				**10,370,442**

Table 10.3d: Unconstrained Project List for TxDOT

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
FM 1397	From 0.1 mile north of CR 2320 to 0.1 mile north of North Park Road Widen from 2 lanes to 4 lanes with flush median	23	n/a	Federal and State	34,000,000	2036	98,034,532	125,484,200
FM 989	From US 82 to US 59 Widen existing 4 lanes to 4 lanes with flush median	44	n/a	Federal and State	12,100,000	2036	34,888,760	44,657,613
FM 989	From IH 30 to Myrtle Springs Road Widen 2 lanes to 4 lanes with flush median	46	n/a	Federal and State	11,000,000	2036	31,717,054	40,597,830
US 82	From LP 14 to Cowhorn Creek Widen existing 4 lanes undivided to 4 lanes divided with flush median	14	n/a	Federal and State	3,800,000	2036	10,956,801	14,024,705
FM 558	From SH 93 to LP 151 Widen existing 2 lanes to 4 lanes divided with flush median	13	n/a	Federal and State	10,900,000	2036	31,428,717	40,228,758
IH 30	West of FM 989 to Arkansas State Line Widen existing 4 lane freeway to 6 lane freeway	21	0610-07-053	Federal and State	36,325,000	2036	104,738,364	134,065,105
US 59	From IH 30 to SH 93 Widen existing 4 lane freeway to 6 lane freeway	24	n/a	Federal and State	18,700,000	2036	53,918,992	69,016,310
Northern Loop	From IH 49 to IH 30 Route location study for rural highway	43	n/a	Federal and State	224,000,000	2036	645,874,561	826,719,438
IH 49	From US 59/71 to Red River Construct 4-lane High Priority Highway (main lanes)	22	n/a	Federal and State	49,600,000	2036	143,015,081	183,059,304
				Total Unconstrained Projects	**400,425,000**		**1,154,572,862**	**1,477,853,263**

City of Texarkana, Texas

Table 10.4a: 2010 to 2013 Constrained Project List for Texarkana, TX

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Morris Lane	From FM 1397 (Summerhill Road) to Cowhorn Creek Road Construct new 3 lane road	105	n/a	Local	2,000,000	2010	2,080,000	2,132,000
New Road	From FM 1397 (Summerhill Road) to A & M University campus Construct new 4 lane boulevard	121	n/a	Local	16,000,000	2010	16,640,000	17,056,000
Morris Lane	From Cowhorn Creek Road to Robin Lane Construct new 3 lane road	107	n/a	Local	2,500,000	2012	2,812,160	2,882,464
North Kenwood Road extension	From north deadend to south deadend of North Kenwood Road Construct new 3 lane road	127	n/a	Local	282,000	2012	317,212	325,142
Morris Lane	From Robin Lane to FM 559 (Richmond Road) Reconstruct existing and widen 2 lane to 3 lane road	130	n/a	Local	1,500,000	2013	1,754,788	1,798,658
Gibson Lane extension	From University Avenue to FM 2878 (Pleasant Grove Road) Construct new 4 lane road with drainage facilities	125	n/a	Local	3,175,766	2013	3,715,197	3,808,077
Gibson Lane extension	From FM 2878 (Pleasant Grove Road) to FM 989 Construct new 4 lane road with drainage facilities	126	n/a	Local	2,620,343	2013	3,065,431	3,142,066
New Road	From FM 2878 (Pleasant Grove Road) to Hampton Road Construct new 2 lane road	131	n/a	Local	1,500,000	2013	1,754,788	1,798,658
				Total 2010 to 2013 Projects	**29,578,109**		**32,139,575**	**32,943,064**

Table 10.4b: 2014 to 2019 Constrained Project List for Texarkana, TX

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Cooper Lane	From FM 989 (Kings Highway) to FM 2878 Reconstruct 2 lane to 4 lane road	112	n/a	Local	1,500,000	2015	1,897,979	1,945,428
South State Line Avenue	From Lubbock Street to Loop 151 Reconstruct 2 lane to 4 lane road	103	n/a	Local	2,632,000	2015	3,330,320	3,413,578
College Drive	From SH 93 (Summerhill Road) to FM 559 (Richmond Road) Reconstruct 2 lane to 5 lane road	108	n/a	Local	4,000,000	2016	5,263,727	5,395,320
Moores Lane	From FM 559 (Richmond Road) to Gin Road Reconstruct from 2 lanes to 3 lanes	104	n/a	Local	1,000,000	2016	1,315,932	1,348,830
Gin Road	From FM 559 (Richmond Road) to FM 1297 (McKnight Road) Reconstruct from 2 lanes to 3 lanes	110	n/a	Local	3,173,000	2019	4,696,815	4,814,235
				Total 2014 to 2019 Projects	**12,305,000**		**16,504,772**	**16,917,392**

Table 10.4c: 2020 to 2035 Constrained Project List for Texarkana, TX

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
North Park Road	From IH 30 overpass to Winchester Drive Reconstruct 2 lane to 3 lane road	124	n/a	Local	7,000,000	2020	10,776,178	11,045,583
Pavillion Parkway	From Gibson Lane to FM 1297 (McKnight Road) Construct new 4 lane road	123	n/a	Local	2,500,000	2022	4,162,684	4,266,751
Knotty Pine Street	From Knotty Pine Place to Stonegate Drive Construct new 3 lane road	106	n/a	Local	200,000	2024	360,189	369,193
Sandlin Avenue	From deadend of Sandlin Avenue to Kevin Street Construct new 2 lane road	109	n/a	Local	500,000	2025	936,491	959,903
Airline Drive	From FM 559 (Richmond Road) to north of Prestige Lane Reconstruct 2 lane to 3 lane road	111	n/a	Local	2,000,000	2032	4,929,431	5,052,667
				Total 2020 to 2035 Projects	**12,200,000**		**21,164,973**	**21,694,097**
				Total 2010 to 2035 Cost Estimates	**54,083,109**		**69,809,320**	**71,554,553**
				Total 2010 to 2035 Anticipated Funding				**72,000,000**
				Balance of Funds				**445,447**

Table 10.4d: Unconstrained Project List for Texarkana, TX

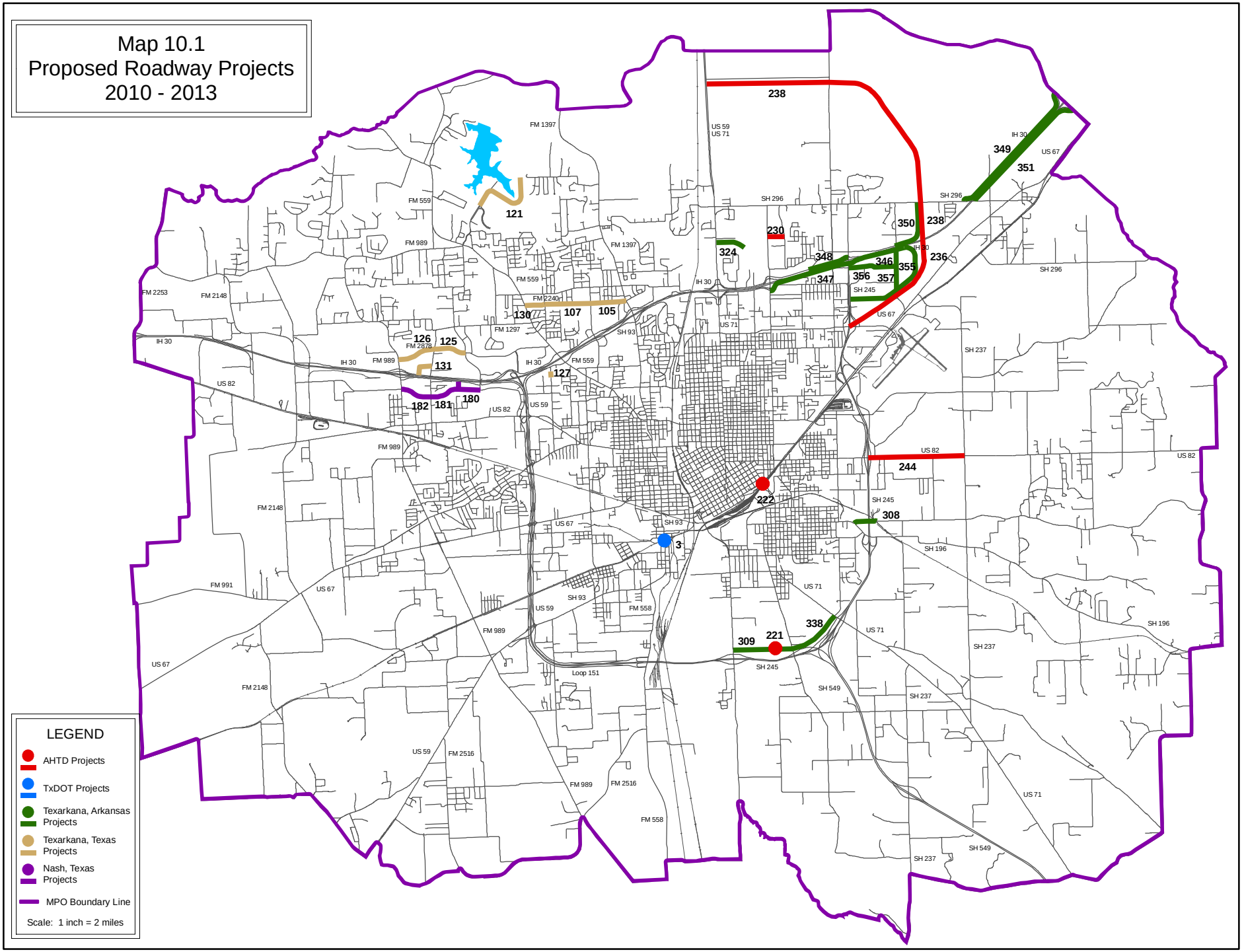
Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Idalou Drive	From Airline Drive to end of Idalou Drive Reconstruct from 2 lanes to 3 lanes	113	n/a	Local	639,000	2036	1,842,473	1,888,534
Skyline Boulevard	From end of Idalou Drive to end of Skyline Boulevard Construct new 3 lane road	115	n/a	Local	262,000	2036	755,443	774,329
West 24th Street	From Loop 14 (Texas Boulevard) to US 71 (State Line Avenue) Reconstruct from 2 lanes to 3 lanes	114	n/a	Local	1,903,000	2036	5,487,050	5,624,227
University Avenue	From IH 30 south frontage road to US 82 (New Boston Road) Construct new 2 lane road	118	n/a	Local	2,340,000	2036	6,747,082	6,915,760
Old Boston Road	From Robison Road to US 82 (New Boston Road) Reconstruct from 2 lanes to 3 lanes	128	n/a	Local	n/a	2036	n/a	n/a
Belt Road	From FM 559 (Richmond Road) to Old Boston Road Reconstruct from 2 lanes to 3 lanes	129	n/a	Local	n/a	2036	n/a	n/a
				Total Unconstrained Projects	**5,144,000**		**14,832,048**	**15,202,849**

City of Nash, Texas

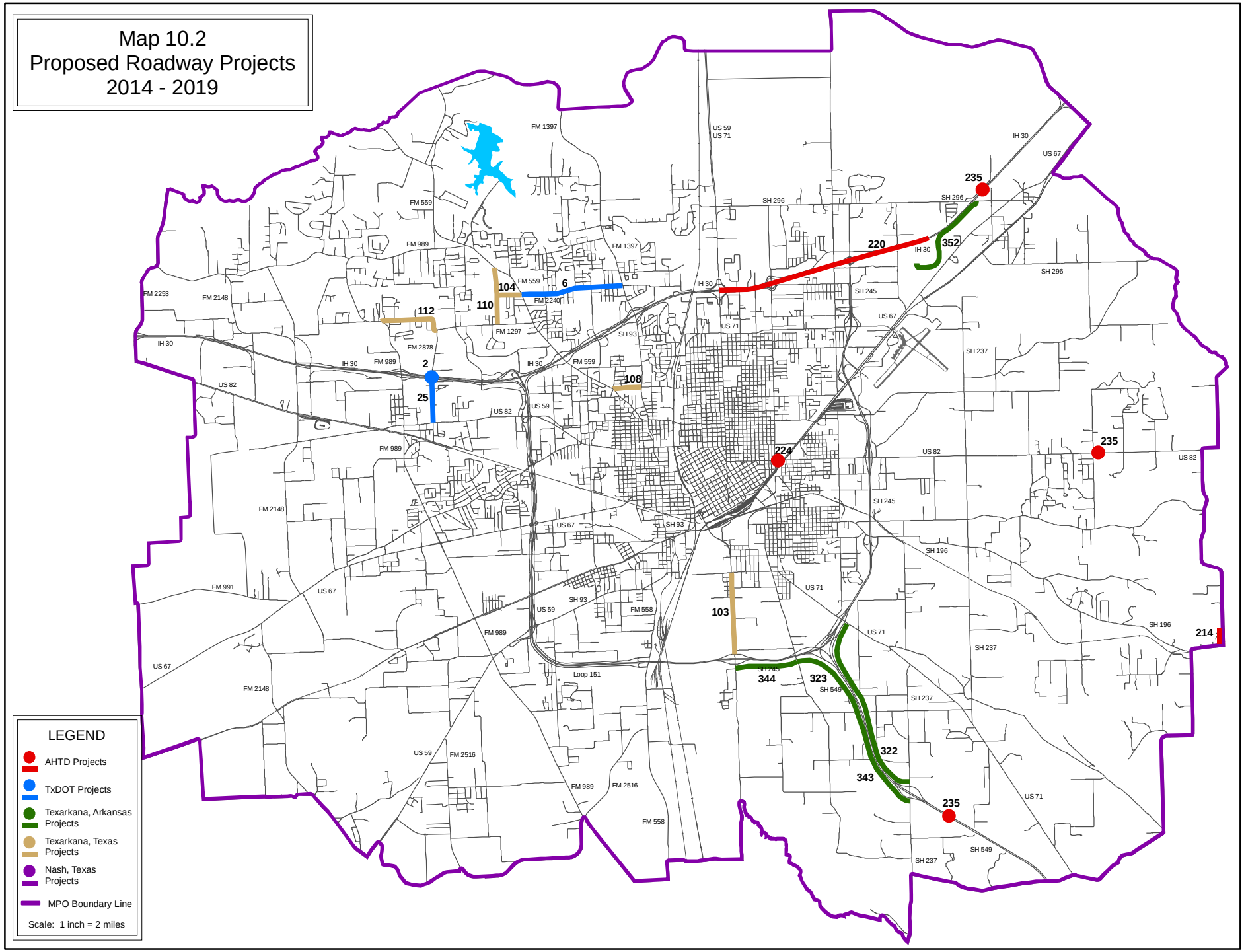
Table 10.5a: 2010 to 2013 Constrained Project List for Nash, TX

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Walton Drive	From University Avenue to IH 30 south frontage road connection Construct new 3 lane road	180	n/a	Local	2,236,114	2011	2,418,581	2,479,045
Walton Drive	From FM 2878 (Pecan Street) to IH 30 south frontage road Construct new 3 lane road	181	n/a	Local	3,859,029	2011	4,173,926	4,278,274
Walton Drive	From FM 989 (Kings Highway) to FM 2878 (Pecan Street) Construct new 3 lane road	182	n/a	Local	2,808,296	2011	3,037,453	3,113,389
				Total 2010 to 2013 Projects	**8,903,439**		**9,629,960**	**9,870,709**

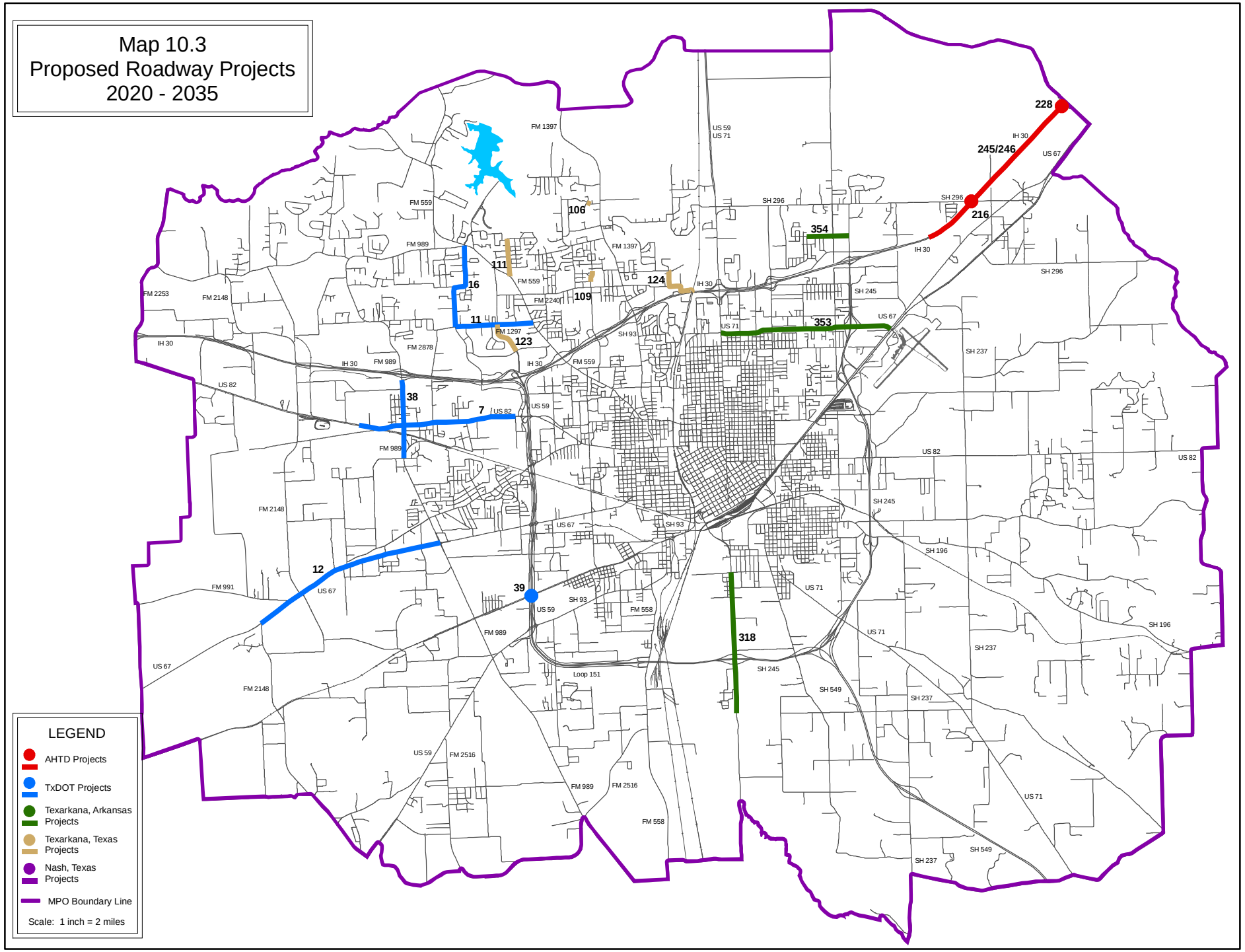
Map 10.1
Proposed Roadway Projects
2010 - 2013



This page intentionally left blank.


Map 10.2
Proposed Roadway Projects
2014 - 2019
LEGEND
AHTD Projects
TxDOT Projects
Texarkana, Arkansas Projects
Texarkana, Texas Projects
Nash, Texas Projects
MPO Boundary Line
Scale: 1 inch = 2 miles
FM 1397
US 59
US 71
IH 30
US 67
235
SH 296
FM 559
FM 989
220
352
FM 2253
FM 2148
104
6
FM 559
FM 2240
110
112
FM 1297
SH 93
SH 245
US 67
FM 2878
IH 30
FM 989
2
108
SH 237
25
US 82
US 59
224
235
FM 989
US 82
SH 245
FM 2148
US 67
SH 93
SH 196
FM 991
US 67
US 59
SH 93
FM 558
103
US 71
FM 989
SH 196
214
US 67
Loop 151
SH 549
344
323
FM 2148
SH 237
322
US 59
FM 2516
343
FM 989
FM 2516
235
US 71
FM 558
SH 549
SH 237

This page intentionally left blank.


Map 10.3
Proposed Roadway Projects
2020 - 2035
228
245/246
216
354
353
106
111
16
11
123
124
109
38
7
12
39
318
LEGEND
AHTD Projects
TxDOT Projects
Texarkana, Arkansas Projects
Texarkana, Texas Projects
Nash, Texas Projects
MPO Boundary Line
Scale: 1 inch = 2 miles

This page intentionally left blank

PROPOSED BICYCLE AND PEDESTRIAN PROJECTS

Arkansas

Table 10.6a: 2010 to 2013 Bicycle and Pedestrian Constrained Project List for Arkansas

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Nix Creek Trail	From Broad Street to Preston Street Extend existing multi-use trail +/- 900 LF	635	n/a	Grant/Texarkana, AR	110,000	2010	117,700	117,700
Nix Creek Trail	US 71 (East Street) to Jackson Street Extend existing multi-use trail +/- 1200 LF	633a	n/a	Grant/Texarkana, AR	30,000	2012	36,751	36,751
Nix Creek Trail	Jackson Street to Hobo Jungle Park Trailhead Extend existing multi-use trail +/- 1200 LF	633b	n/a	Grant/Texarkana, AR	45,000	2013	58,986	58,986
				Total 2010 to 2013 Projects	**185,000**		**213,437**	**213,437**

Table 10.6b: 2014 to 2019 Bicycle and Pedestrian Constrained Project List for Arkansas

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Nix Creek Trail	From Nix Creek at Kyle Street to Pinehurst Street Construct +/- 2600 LF multi-use trail	636	n/a	Grant/Texarkana, AR	100,000	2015	150,073	150,073
Nix Creek Trail	From Hobo Jungle Trail to Mockingbird Junction at State Line Construct +/- 2300 LF multi-use trail	633d	n/a	Grant/Texarkana, AR	75,000	2018	137,884	137,884
				Total 2014 to 2020 Projects	**175,000**		**287,957**	**287,957**

Table 10.6c: 2020 to 2035 Bicycle and Pedestrian Constrained Project List for Arkansas

Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Nix Creek Trail	From Nix Creek Trail to Boys & Girls Club Property Construct multi-use bridge (~110 LF) and approaches	633c	n/a	Grant/Texarkana, AR	166,000	2020	349,405	349,405
				Total 2020 to 2035 Projects	**166,000**		**349,405**	**349,405**
				Total 2010 to 2035 Projects	**526,000**		**850,800**	**850,799**
				Total 2010 to 2035 Anticipated Funding				**895,000**
				Balance of Funds				**44,201**

Texas

Table 10.7a: 2010 to 2013 Bicycle and Pedestrian Constrained Project List for Texas

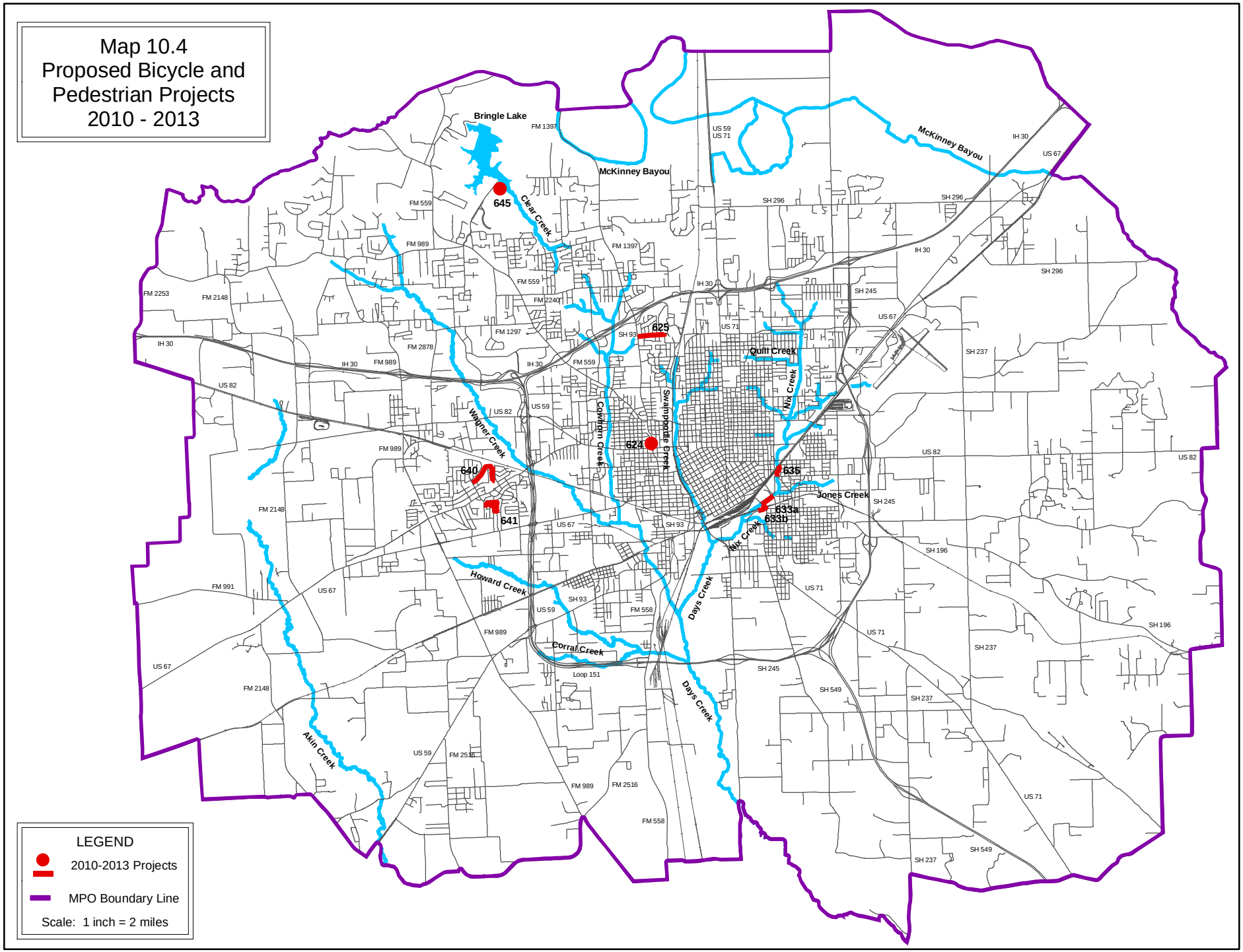
Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
Village Trail 1	From Burma Road to Arizona Avenue Construct 5,300 LF trail with parking and amenities	640	n/a	Grant/Wake Village, TX	250,000	2010	250,000	250,000
SH 93 (Summerhill Rd)	North of US 82 (New Boston Road) Construct raised pedestrian safety median (CAT 9)	624	n/a	Grant/Texarkana, TX	50,000	2011	54,080	57,325
Bringle Lake	At University Avenue Construct multi-use facility	645	n/a	Grant/Texarkana, TX	200,000	2011	216,320	229,299
Village Trail 2	From Arizona Street to Wildcat Drive Construct 3,800 LF trail, soccer field, parking and amenities	641	n/a	Grant/Wake Village, TX	250,000	2012	250,000	250,000
South Park Road	Spring Lake Park (McDougal Trail) to Summerhill Road Construct, Sign, and Stripe Bike/Ped facility	625	n/a	Grant/Texarkana, TX	75,000	2013	87,739	93,004
				Total 2010 to 2013 Projects	**825,000**		**858,139**	**879,628**

Table 10.7b: 2014 to 2019 Bicycle and Pedestrian Constrained Project List for Texas

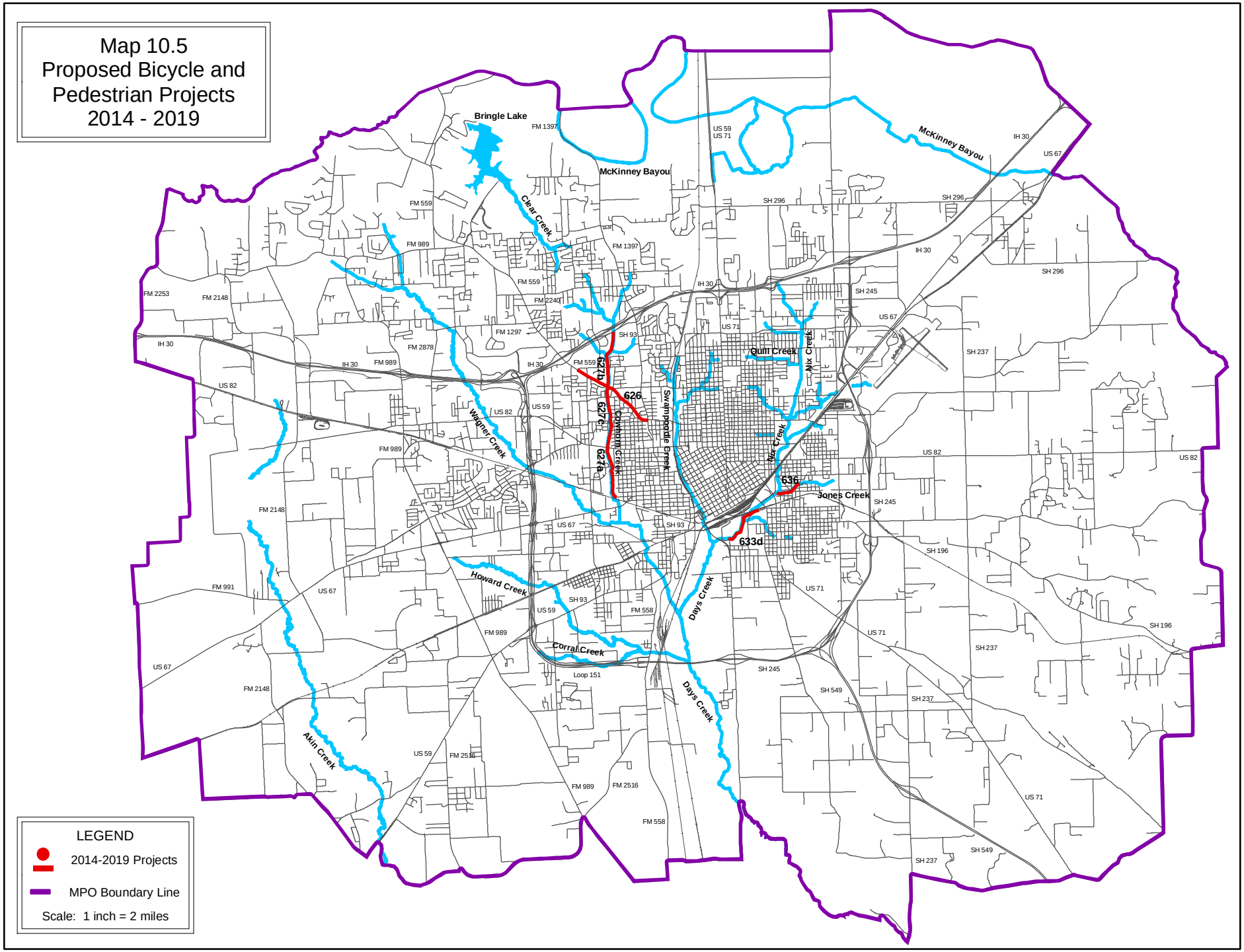
Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
FM 559 (Richmond Rd)	From SH 93 (Summerhill Road) to Kennedy Lane Construct new sidewalks (CAT 9)	626	n/a	Grant/Texarkana, TX	350,000	2014	425,829	451,378
Cowhorn Creek Corridor (A)	TNER RR to US 82 (New Boston Road) Construct multi-use facility	627a	n/a	Grant/Texarkana, TX	250,000	2014	304,163	322,413
Cowhorn Creek Corridor (B)	FM 559 (Richmond Road) to IH 30 south frontage road Construct multi-use facility	627b	n/a	Grant/Texarkana, TX	250,000	2016	328,983	348,722
Cowhorn Creek Corridor (C)	US 82 (New Boston Road) to FM 559 (Richmond Road) Construct multi-use facility	627c	n/a	Grant/Texarkana, TX	250,000	2018	355,828	377,178
				Total 2014 to 2020 Projects	**1,100,000**		**1,414,803**	**1,499,691**

Table 10.7c: 2020 to 2035 Bicycle and Pedestrian Constrained Project List for Texas

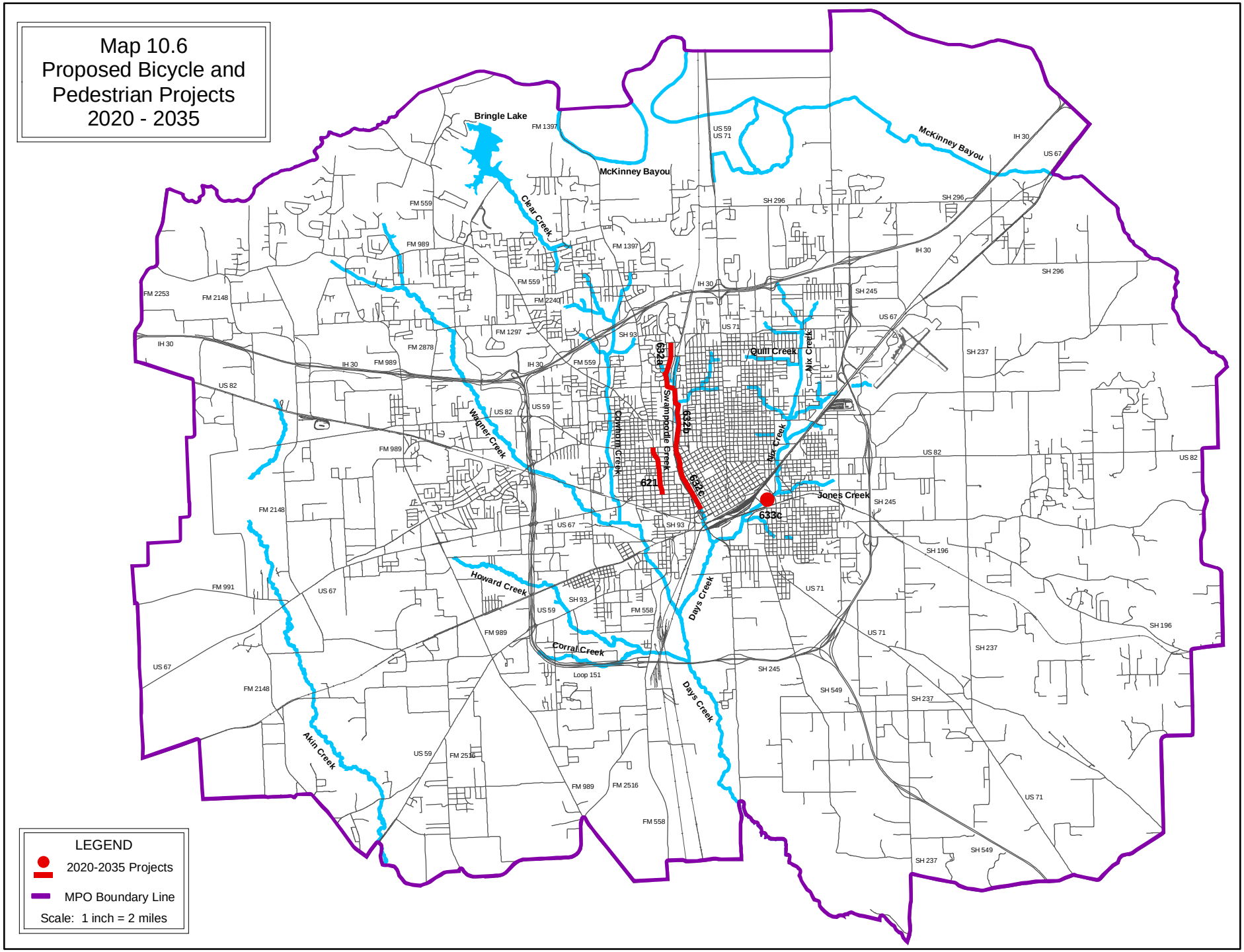
Facility Name	Project Limits / Project Description	MPO ID Number	State Job Reference Number	Funding Sources	2009 Construction Cost Estimate	YOE Base Year	YOE Construction Cost Estimate	YOE Total Project Cost Estimate
SH 93 (Summerhill Rd)	From US 67 (West 7th Street) to US 82 (New Boston Road) Construct new sidewalks (CAT 9)	621	n/a	Grant/Texarkana, TX	450,000	2023	779,254	997,446
Swampoodle Creek Corridor (A)	Spring Lake Park at Rio Grande Ave to College Dr at KCS RR Stripe/Sign on street route	632a	n/a	Grant/Texarkana, TX	50,000	2020	76,973	98,525
Swampoodle Creek Corridor (B)	KCS RR at College Drive to US 82 (New Boston Road) Construct multi-use facility	632b	n/a	Grant/Texarkana, TX	200,000	2022	333,015	426,259
Swampoodle Creek Corridor (C)	US 82 (New Boston Road) to Downtown Texarkana Construct multi-use facility	632c	n/a	Grant/Texarkana, TX	200,000	2024	360,189	461,042
				Total 2020 to 2035 Projects	**900,000**		**1,549,431**	**1,983,271**
				Total 2010 to 2035 Cost Estimates	**2,825,000**		**3,822,373**	**4,362,590**
				Total 2010 to 2035 Anticipated Funding				**4,362,590**
				Balance of Funds				**0**


Map 10.4
Proposed Bicycle and
Pedestrian Projects
2010 - 2013
Bringle Lake
McKinney Bayou
Clear Creek
Quill Creek
Nix Creek
Swamppoodle Creek
Courtlandt Creek
Wagner Creek
Howard Creek
Corral Creek
Days Creek
Akin Creek
Jones Creek
645
625
624
635
640
641
633a
633b
FM 1397
US 59
US 71
IH 30
US 67
SH 296
FM 559
FM 989
FM 2253
FM 2148
FM 2240
FM 1297
SH 93
SH 245
FM 2878
US 82
FM 991
FM 558
Loop 151
SH 549
SH 237
SH 196
FM 2516
LEGEND
2010-2013 Projects
MPO Boundary Line
Scale: 1 inch = 2 miles

This page intentionally left blank.


Map 10.5
Proposed Bicycle and
Pedestrian Projects
2014 - 2019
Bringle Lake
McKinney Bayou
Clear Creek
Quill Creek
Nix Creek
Swampdoodle Creek
Wagner Creek
Howard Creek
Corral Creek
Days Creek
Akin Creek
Jones Creek
626
627b
627c
627a
636
633d
LEGEND
2014-2019 Projects
MPO Boundary Line
Scale: 1 inch = 2 miles

This page intentionally left blank.


Map 10.6
Proposed Bicycle and
Pedestrian Projects
2020 - 2035
Bringle Lake
McKinney Bayou
Clear Creek
Quill Creek
Nix Creek
Swamppoodle Creek
Cottonwood Creek
Wagner Creek
Howard Creek
Corral Creek
Days Creek
Akin Creek
Jones Creek
632a
632b
632c
621
LEGEND
2020-2035 Projects
MPO Boundary Line
Scale: 1 inch = 2 miles

This page intentionally left blank.

PROPOSED TRANSIT ACTIVITIES

Texarkana Urban Transit District (TUTD)

Table 10.8a: 2010 to 2013 Constrained Activity List for Transit

Classification	Activity Limits / Activity Description	MPO ID Number	State Job Reference Number	Funding Sources	Federal Funding	Local Match	Total Cost Estimate
Capital	At US 82 (Texas Blvd.) and 14th Street Construct Office and Transfer Station	801	n/a	ARRA 2009	1,080,567	0	1,080,567
Capital	Various Locations within T-Line service area Purchase and install bus stop shelters and benches	802	n/a	FTA 5307 & Local Match (80/20)	60,000	15,000	75,000
Operations	Within T-Line service area Day to day operation of T-Line services	803	n/a	FTA 5307 & Local Match (50/50)	2,170,000	2,170,000	4,340,000
Capital	Within T-Line service area Perform maintenance on equipment and facilities	804	n/a	FTA 5307 & Local Match (80/20)	931,000	232,750	1,163,750
				Total 2010 to 2013 Activities	**4,241,567**	**2,418,000**	**6,659,567**

Table 10.8b: 2014 to 2019 Constrained Activity List for Transit

Classification	Activity Limits / Activity Description	MPO ID Number	State Job Reference Number	Funding Sources	Federal Funding	Local Match	Total Cost Estimate
Capital	Within T-Line service area Replace 13 buses, buy 1bus for service expansion	805	n/a	FTA 5307 & Local Match (80/20)	2,654,000	663,500	3,317,500
Operations	Within T-Line service area Day to day operation of T-Line services	803	n/a	FTA 5307 & Local Match (50/50)	2,085,000	2,085,000	4,170,000
Capital	Within T-Line service area Acquire property for construction of maintenance facility	804	n/a	FTA 5307 & Local Match (80/20)	898,000	224,500	1,122,500
				Total 2014 to 2019 Activities	**5,637,000**	**2,975,000**	**8,612,000**

Table 10.8c: 2020 to 2035 Constrained Activity List for Transit

Classification	Activity Limits / Activity Description	MPO ID Number	State Job Reference Number	Funding Sources	Federal Funding	Local Match	Total Cost Estimate
Capital	Within T-Line service area Replace 14 buses, buy 1bus for service expansion	805	n/a	FTA 5307 & Local Match (80/20)	9,545,000	2,386,250	11,931,250
Operations	Within T-Line service area Day to day operation of T-Line services	803	n/a	FTA 5307 & Local Match (50/50)	8,837,000	8,837,000	17,674,000
Capital	Within T-Line service area Perform maintenance on equipment and facilities	804	n/a	FTA 5307 & Local Match (80/20)	3,804,000	951,000	4,755,000
				Total 2020 to 2035 Activities	**22,186,000**	**12,173,000**	**34,359,000**
				Total 2010 to 2035 Activities Estimates	**32,064,567**	**17,566,000**	**49,630,567**
				Total 2010 to 2035 Anticipated Funding	**32,065,393**	**17,566,000**	**49,631,393**
				Balance of Funds	**826**	**0**	**826**

PROPOSED AIRPORT ACTIVITIES

Texarkana Regional Airport

Table 10.9a: 2010 to 2013 Constrained Activity List for Texarkana Regional Airport

Classification	Project Limits / Project Description	MPO ID Number	YOE	Funding Sources				Total Cost Estimate
				Entitlement	Match*	Other**	AIP Request	
Terminal/Support	At Texarkana Regional Airport Construct Aircraft Rescue and Fire Fighting Station - Phase 4b	701	2010	1,000,000	52,632	0	919,000	2,020,000
Terminal/Support	At Texarkana Regional Airport New Passenger Terminal - Phase I (Environmental)	702	2010	0	0	300,000	0	300,000
Airfield	At Texarkana Regional Airport Rehabilitate Taxiway "B"	703	2010	0	57,820	0	1,098,576	1,156,396
Airfield	At Texarkana Regional Airport Imrpve Runway 4-22 Safety Area	704	2010	0	7,500	0	142,500	150,000
Airfield	At Texarkana Regional Airport Conduct Obstruction Survey	705	2010	0	5,000	0	95,000	100,000
Terminal/Support	At Texarkana Regional Airport New Passenger Terminal - Phase II (Design)	702	2011	0	0	1,560,000	0	1,560,000
Airfield	At Texarkana Regional Airport New Taxiway "D" - Phase I (Preliminary Design)	707	2011	630,854	33,203	0	0	664,057
Airfield	At Texarkana Regional Airport Rehabilitate Airfield Signage & Beacon	708	2011	369,146	19,429	0	0	388,575
Terminal/Support	At Texarkana Regional Airport New Passenger Terminal - Phase III (Construction)	702	2012	0	0	8,400,000	0	8,400,000
Airfield	At Texarkana Regional Airport New Taxiway "D" - Phase II (Final Design & Construction)	707	2012	1,000,000	52,632	0	1,850,000	3,000,000
Terminal/Support	At Texarkana Regional Airport New Passenger Terminal - Phase IV (Construction)	702	2013	0	0	11,000,000	0	11,000,000
Airfield	At Texarkana Regional Airport New Taxiway "D" - Phase III (Final Design & Construction)	707	2013	1,000,000	52,632	0	1,850,000	3,000,000
	Total 2010 to 2013 Activities			**4,000,000**	**280,848**	**21,260,000**	**5,955,076**	**31,739,028**

* 5% Sponser Match to Total Estimated Cost

** State Grant, Economic Development Grant, Bond Financing, and/or Private funds

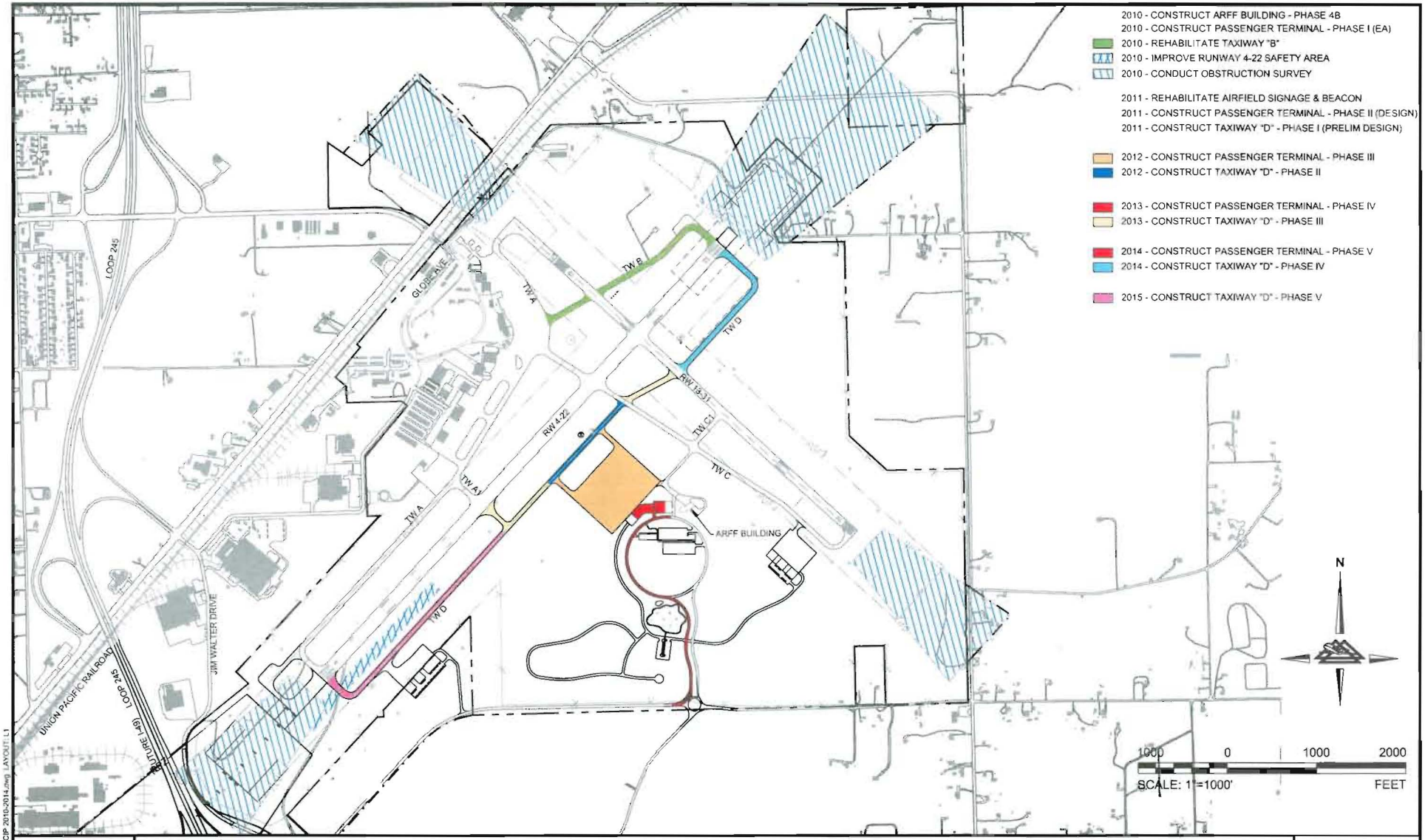
Table 10.9b: 2014 to 2019 Constrained Activity List for Texarkana Regional Airport

Classification	Project Limits / Project Description	MPO ID Number	YOE	Funding Sources				Total Cost Estimate
				Entitlement	Match*	Other**	AIP Request	
Terminal/Support	At Texarkana Regional Airport New Passenger Terminal - Phase V (Construction)	702	2014	0	0	5,600,000	0	5,600,000
Airfield	At Texarkana Regional Airport New Taxiway "D" - Phase IV (Final Design & Construction)	707	2014	1,000,000	52,632	0	1,850,000	3,000,000
	Total 2014 to 2019 Activities			**1,000,000**	**52,632**	**5,600,000**	**1,850,000**	**8,600,000**

* 5% Sponser Match to Total Estimated Cost

** State Grant, Economic Development Grant, Bond Financing, or Private funds

Total 2010 to 2035 Activities Estimates	**333,480**	**26,860,000**	**7,805,076**	**40,339,028**
Total 2010 to 2035 Anticipated Funding	**333,480**	**26,860,000**	**7,805,076**	**40,339,028**
Balance of Funds	**0**	**0**	**0**	**0**



2010 - 2014 CIP SKETCH
TEXARKANA REGIONAL AIRPORT

DRAWN BY:	JLV	CHECKED BY:	JMM	SCALE:	1"=1000'	DATE:	APRIL 2009

EXHIBIT 1

DRAWING: TXK-CIP 2010-2014.dwg, LAYOUT: L1