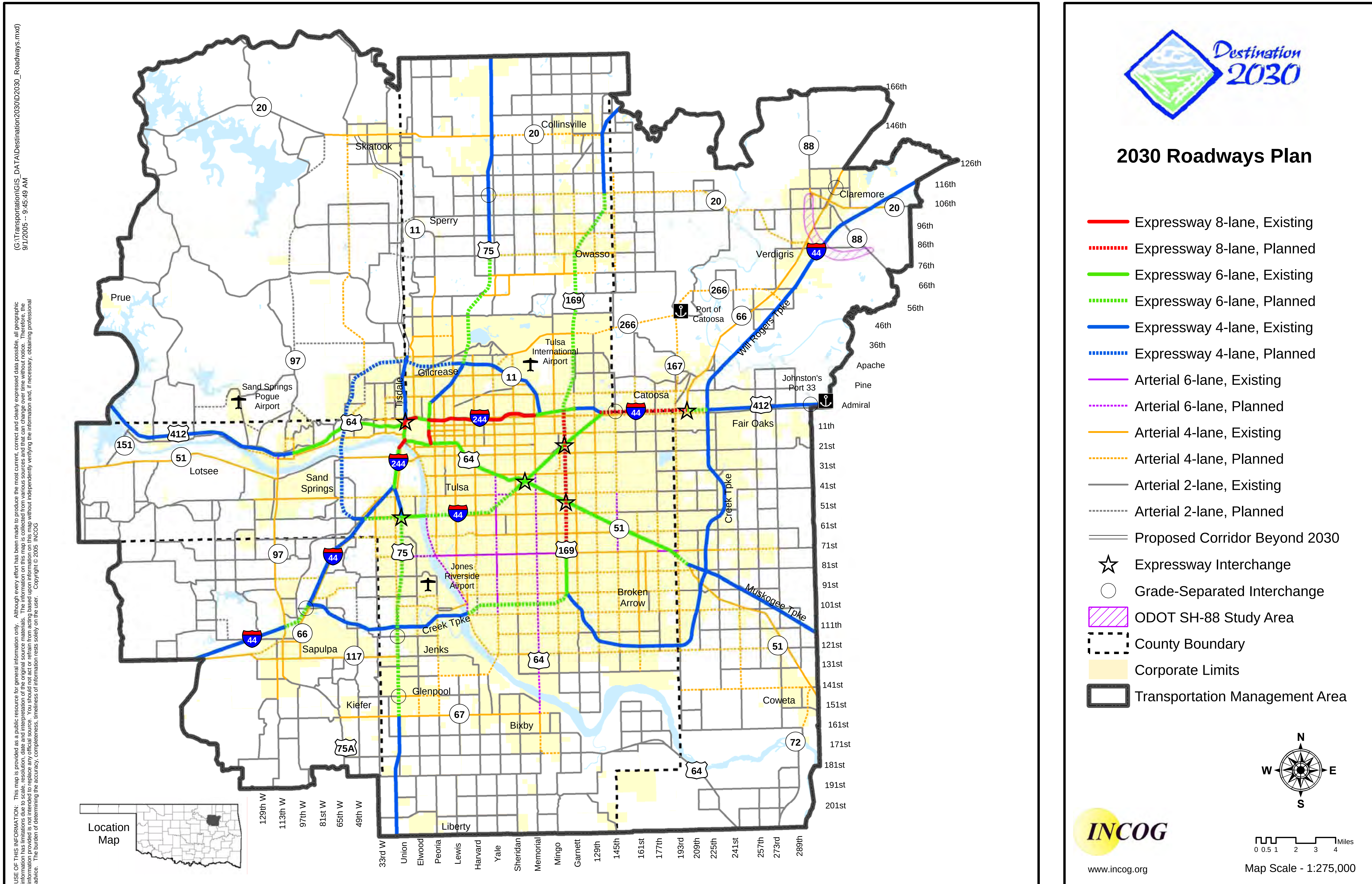
ROADWAYS

Chapter 2



Destination 2030
2030 Roadways Plan
Expressway 8-lane, Existing
Expressway 8-lane, Planned
Expressway 6-lane, Existing
Expressway 6-lane, Planned
Expressway 4-lane, Existing
Expressway 4-lane, Planned
Arterial 6-lane, Existing
Arterial 6-lane, Planned
Arterial 4-lane, Existing
Arterial 4-lane, Planned
Arterial 2-lane, Existing
Arterial 2-lane, Planned
Proposed Corridor Beyond 2030
Expressway Interchange
Grade-Separated Interchange
ODOT SH-88 Study Area
County Boundary
Corporate Limits
Transportation Management Area
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INCOG
www.incog.org
Miles
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Map Scale - 1:275,000
Location Map
Skiatook
Collinsville
Sperry
Owasso
Claremore
Verdigris
Prue
Port of Catoosa
Tulsa International Airport
Gilcrease
Sand Springs Pogue Airport
Catoosa
Johnston's Port 33
Fair Oaks
Lotsee
Sand Springs
Tulsa
Jones Riverside Airport
Broken Arrow
Sapulpa
Jenks
Glenpool
Kiefer
Bixby
Coweta
Liberty
Tisdale
Creek Tpke
Will Rogers Tpke
Muskogee Tpke
166th
146th
126th
116th
106th
96th
86th
76th
66th
56th
46th
36th
Apache
Pine
Admiral
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61st
71st
81st
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111th
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191st
201st
129th W
113th W
97th W
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INTRODUCTION

Personal transportation in the Tulsa Transportation Management Area (TMA), as in many regions across the country, is predominantly oriented toward the automobile. A well-developed network of arterial streets based on a 1 mile grid interspersed with expressways makes the TMA's roadways a relatively convenient system. Expressways provide the necessary linkages to jobs and housing, while the arterial corridors are saturated with shopping, social and recreational facilities serving neighborhoods and communities.

The region is committed to providing mobility and access to all people in a safe and convenient manner, and historically this has been provided in large part by the automobile. Because of the traditional development, and other factors, the reliance on the automobile will continue in the future. However, as the region grows and matures the focus will shift to greater consideration for other forms of transportation in the development process and simultaneously there should be increasing emphasis on making the roadway system safer, more efficient, and easier to use (*2030 Roadways Plan* map, Page 21).

Roadway planning in the TMA is a continuous and coordinated process rooted in solving the community's anticipated challenges related to growing demand and limited supply of infrastructure. Environmental considerations play a major role in transportation planning as the region's long-term vitality is strengthened only with improved livability and quality of life.

Resident Priorities

During a public outreach process spanning 3 years, residents identified and prioritized roadway recommendations for the *Destination 2030* Long Range Transportation Plan (LRTP). The results, in order of priority, were:

1. Make the maintenance of existing roadways and bridges an increasing priority
2. Focus on improving safety at arterial street intersections, including signalization at intersections and signal coordination in corridors
3. Effectively finance the development and maintenance of the transportation system and optimize the use of transportation funds
4. Include alternative transportation features in the design of traffic improvements
5. Increase the coordination of transportation planning and land-use planning or development
6. Continue needed expansion of highways and major roadways
7. Enhance safety by increasing or improving enforcement of existing laws and regulations, improving the education of new drivers, and increasing education for existing drivers
8. Give priority to roadways serving significant regional economic centers
9. Consideration should be given to minimizing the mix of vehicles (separating tractor-trailers from smaller vehicles) on highways and major roadways
10. Improve access across the Arkansas River

PLANNING FOR ROADWAYS

The roadways plan utilizes a computerized model for analyzing traffic at the TMA level. Specific land-use forecasts for 2030 based on projected population and employment have been developed with consultation from local public- and private-sector representatives. The results from the land-use forecasting process were incorporated into the transportation modeling through trip generation, trip distribution, and traffic assignment to test various alternatives and ultimately recommend an optimal roadway network for 2030.

The procedures involved data development for the base year, 2000, and the horizon year, 2030. The household trip-related data was determined using local household survey data collected for the Tulsa metropolitan area in conjunction with the 1995 Nationwide Personal Transportation Survey (NPTS) for the region. This data was further validated using sample 2000 NPTS data for the region. The household-level data specifically includes trips per household and vehicle occupancy rates from the households surveyed.

To determine how trips are dispersed throughout the region, a computer model was used to distribute trips between small geographic areas called transportation zones. The model then assigns the trips to the roadway network to determine where and how much travel demand occurs. The result of the modeling process is a roadway network with 2030 forecasted volume of traffic (*Figure 12).*

CURRENT AND FUTURE ROADWAYS SYSTEM

The TMA roadway system is primarily comprised of expressways and arterial streets on a roughly 1 mile grid system. The roadway system, as shown in *Figure 13*, is well-served by Interstate highways (I-244 and I-44) and National Highway System routes (US-75, US-169, US-64, US-412, SH-51and SH-266), as well as numerous other state and federal highways in the region.

In 2000, the roadway system comprised approximately 872 lane-miles of expressways, 286 lane-miles of turnpikes, 8,800 lane-miles of arterial streets, and numerous miles of local streets.

FIGURE 12

Roadway Modeling Procedure Summary Flow Chart

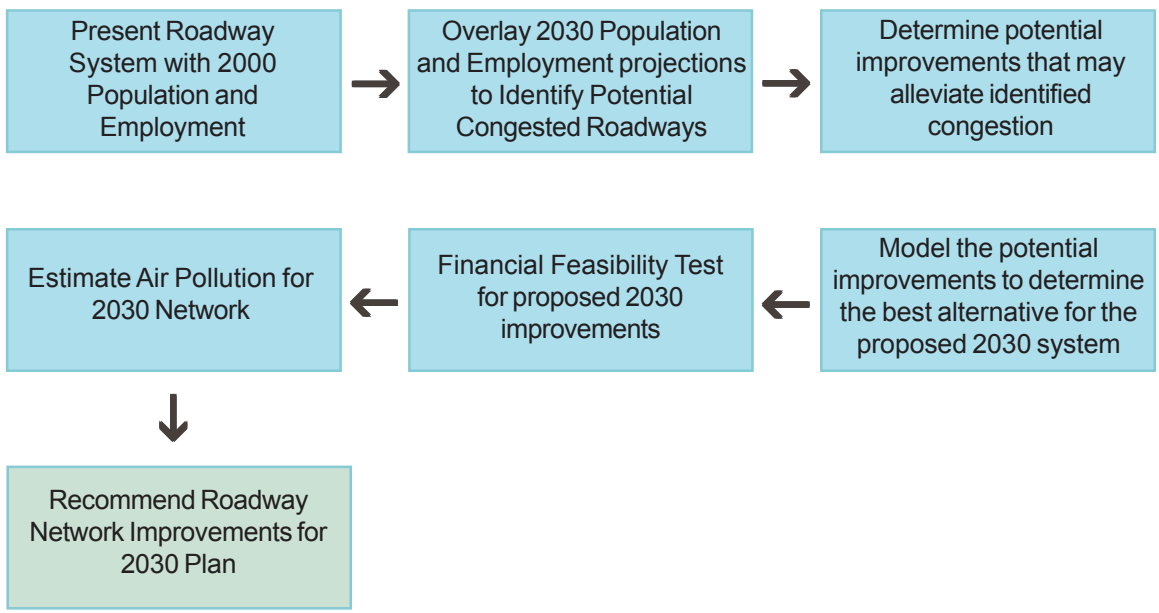
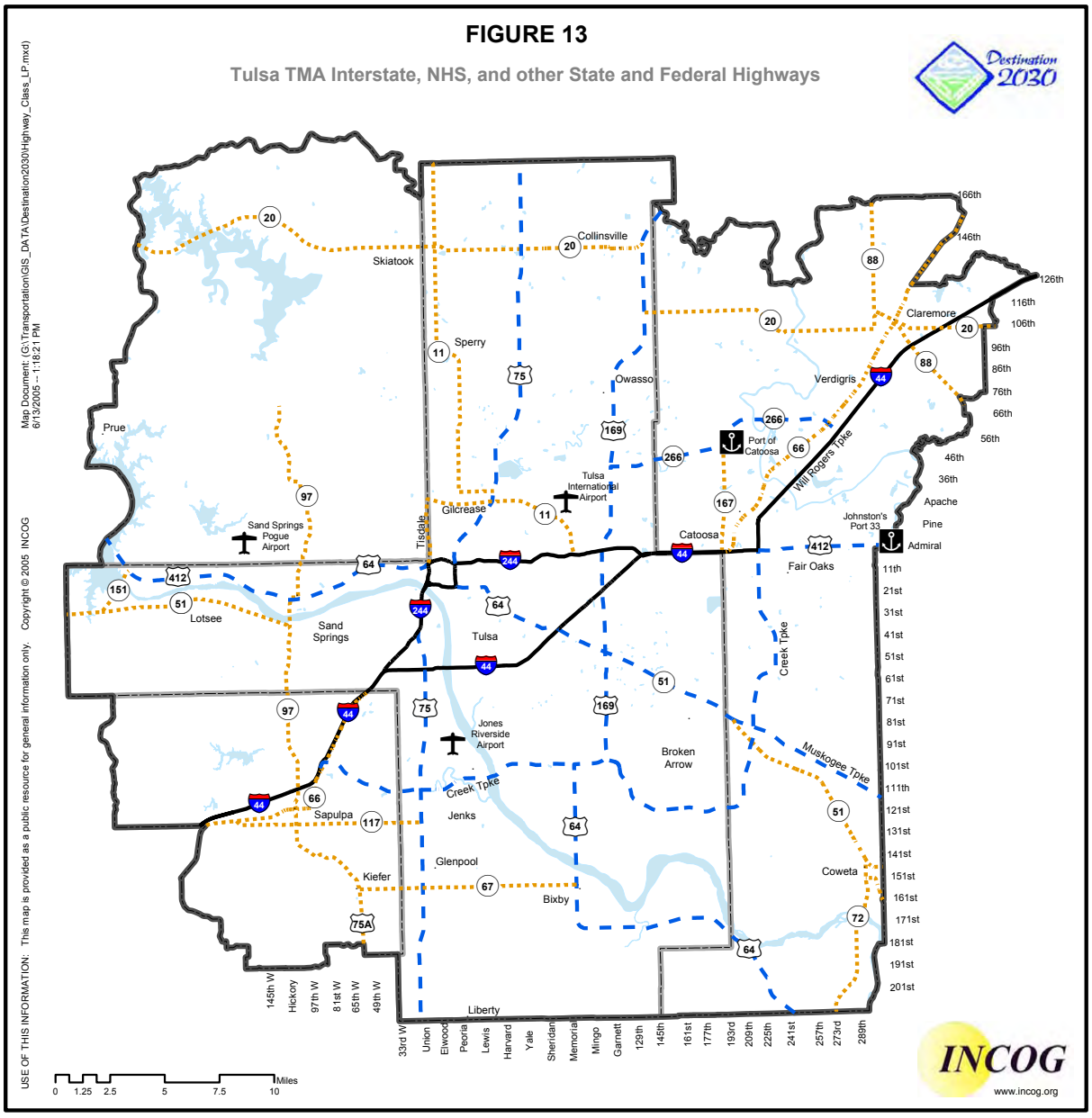


FIGURE 13

Tulsa TMA Interstate, NHS, and other State and Federal Highways



The Tulsa central business district is well-connected, with expressways radiating out from all directions. Southeast from downtown, 2 primary circumferential loops are constructed to serve as expressways. Several area expressways connect suburban communities with downtown Tulsa and other major shopping and industrial districts.

The arterial street system is essentially laid out on a 1 mile grid following township/range section lines that run east-west and north-south. Most of the arterial system is built on the section lines, and the Expressway system is built to provide faster routing for longer area trips and to complement the arterial system.

The TMA has adopted a Congestion Management System (CMS) plan for the region using two indicators for local, recurring congestion: Volume to Capacity Ratio and Observed Travel Speeds. Based on these two indicators, local expressways and arterials were mapped to identify congested corridors within the TMA (*Congestion Management System* map, Page 27). The plan recommends evaluating the congested corridors at regular intervals to measure results of improvements and to plan for additional improvements.

The Tulsa area expressway system carries some of the heaviest traffic in the state of Oklahoma. A few expressways with current and forecasted traffic volumes are shown in *Table 1*. Approximately 21 million vehicle miles of travel (VMT[1]) occurred daily in 2000 on TMA roadways. Expressways carry approximately 39% of the total VMT. The increases in trips per household and non-work trips have grown considerably over the years, outpacing the increase in population and employment. In other words, the same population and employment base come to support increased vehicular travel as well as the burden that comes with maintaining the higher usage of facilities.

A comparison of the 2000 and the 2030 roadway system characteristics are shown in *Table 2*.

TABLE 1

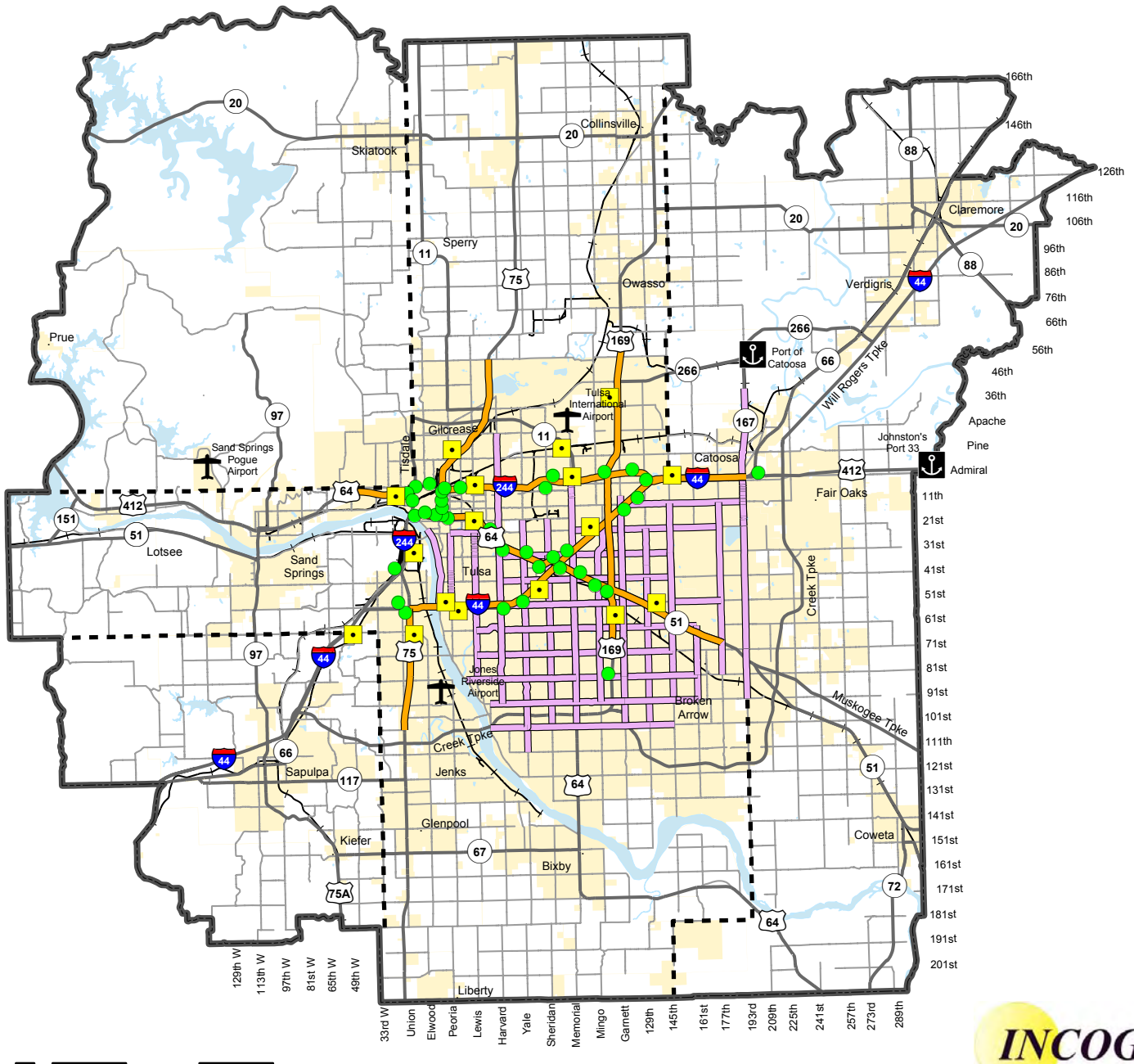
Tulsa Area Expressways: Current Traffic Counts and 2030 Forecast

Expressway Segment	Current Traffic*	2030 Forecast Traffic*
US-64/SH-51 Broken Arrow Exp. (21st St. to Harvard Ave.)	112,000	123,000
US-169 (51st St. to 61st St.)	114,000	140,000
I-244 (SH-11 to US-169)	103,000	122,000
I-44 (Harvard Ave. to Yale Ave.)	81,000	120,000
US-64/SH-51 Broken Arrow Expressway (I-44 to US-169)	90,000	143,000
I-44 (177th E Ave. to 193rd E Ave.)	76,000	110,000
US-412/US-64 (33rd W Ave. to Downtown Tulsa)	72,000	76,000
US-75 (I-44 to 61st St. South)	49,000	80,000
US-75 (36th St. North to 56th St. North)	41,000	82,000

*Source: City of Tulsa (*2002/03 traffic is a weekday traffic count unadjusted for seasonal or other factors) and INCOG (2030 traffic is an average weekday forecast volume of traffic).*

[1] Vehicle Miles of Travel (VMT) is a measure of travel obtained by multiplying the total volume of traffic with the average distance traveled by using an automobile.

Congestion Management System



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- Existing and Planned Video
- Existing and Planned Video and Dynamic Message Signs
- Congested Highways
- Congested Arterials
- Highways
- Arterials
- Rail
- County Boundary
- Corporate Limits
- Transportation Management Area

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Map Scale - 1:410,000

Location Map

TABLE 2
Roadway System Characteristics and Performance

		2000 (Base Year)	2030	Difference	Percent Change
Lane Miles					
	Expressways	872	966	94	10.7%
	Turnpikes	286	300	14	4.8%
	Arterial Streets	8,815	10,015	1,200	13.6%
	Total Lane Miles	9,973	11,281	1,308	13.1%
Travel					
	Vehicle Miles/Day	21,209,000	28,172,000	6,963,000	36.14%
	Vehicle Hours/Day	576,000	750,000	174,000	30.2%
	Average Speed (mph)	36.8	37.5	0.7	1.9%

THE 2030 PLAN FOR ROADWAYS

The development of a roadway plan has been a coordinated process involving focus group sessions and extensive consultation with community representatives and other policymakers in the region. Based on that input, the community's priorities concerning roadways are increases in maintenance, safety, and the efficiency of the system. Congestion is a concern, but it appears the public believes that addressing these priority issues will help congestion in the process.

Since 2000, several significant changes have occurred in the TMA with regard to planned roadway improvements. The opening of the Creek Turnpike from the Turner Turnpike to the Will Rogers Turnpike is a major advancement in that regard. Also, initiation of the Gilcrease North Expressway and planning on the Gilcrease West and Gilcrease Northwest essentially leaves few new alignments to consider in the TMA for the near term. In addition, progress was made in expanding a number of heavily congested two-lane arterial streets, including several South Tulsa and Broken Arrow streets.

The roadway facilities planned for the year 2030 are shown in *2030 Roadways Plan* map on Page 21. The system reflects 94 new expressway lane-miles and 1,200 new arterial lane-miles. The LRTP shows completion of the expressway system with construction of the Gilcrease Northwest Expressway, expansion of portions of I-44/US-412 and US-169 to 8 lanes, expanding I-44 and portions of US-169 and US-75 to 6 lanes, and reconstruction of 6 major interchanges (including I-44 and US-64/SH-51, I-44 and US-169, I-44 and SH-66, I-244 and US-412/US-64 at the Northwest corner of the Inner Dispersal Loop, I-44 and US-75, and US-169 and US-64/SH-51).

The expressway recommendations include the improvements identified in existing engineering designs, functional plans, or environmental clearance documents where appropriate. Riverside Parkway is identified as a Scenic Parkway to be designed and rebuilt to ensure safe passage for motorists, specifically where lane width and sight distance are inadequate. Numerous area arterials are recommended for expansion to 4 through lanes; Yale Avenue and Memorial Drive will need to be expanded to 6 lanes from US-64/SH-51 (Broken Arrow Expressway) to the Creek Turnpike and SH-67/151st Street, respectively. US-64/SH-51 (Broken Arrow Expressway) east of I-44 was modeled to accommodate auxiliary lanes as built, which helps to ease congestion substantially.

In addition, the LRTP recommends reconstruction of the 2 highway-to-highway interchanges along the US-64/SH-51 (Broken Arrow Expressway) corridor, which should also

help alleviate congestion. The third and most important recommendation along the corridor would be to conduct an in-depth feasibility study during the period of the plan for a multimodal facility incorporating commuter transportation options.

The travel demand along the proposed L.L Tisdale/Osage Expressway corridor has not proven to warrant the construction of an expensive freeway in this planning period. The Black Dog Trail Road/North 41st West Avenue/North 52nd West Avenue has been recommended to be improved to 4 lanes to connect with the planned Gilcrease Expressway in the northwest quadrant of the planning area. This facility will provide the much-needed connection to Skiatook, and therefore the Osage Corridor is identified as a future corridor for the purpose of this LRTP.

The cost to build the Osage Expressway is not taken into consideration in the financial feasibility portion of the LRTP since its implementation is not warranted during this planning period based on the underlying assumptions included in this LRTP.

Three additional bridge crossings of the Arkansas River are recommended at the Gilcrease Expressway in the vicinity of 57th West Avenue, 41st Street South, and Yale Avenue to Yale Place. See *Table 3* for a complete list of roadway improvements. Daily Vehicle Miles of Travel are forecast to increase from approximately 21.2 million in 2000 to 28.2 million in 2030. The roadway system, when completely built as planned for 2030, will experience less congestion than in 2000.

Congestion is relative. Tulsa, when compared with many major metropolitan areas, has limited congestion. The congestion in Tulsa is essentially very short term over busy travel hours. Arterials and expressways during peak hours show considerable slow down in vehicular speeds. Recurring congestion does not extend beyond a half-hour period on any major street, as evident from many travel speed studies conducted by INCOG over the last decade. Nonrecurring congestion does occur due to crashes on highways and city streets, and construction-related congestion is also evident.

The TMA adapted 2 specific measurable congestion indices with respect to volume and travel speed since the advent of metropolitan area management systems. The congested roadways, identified using the 2 adapted measures for the TMA, are discussed later in this element.

As the roadway system ages and anticipated maintenance needs increase, timely roadway maintenance has become a growing priority for the region, particularly regarding I-244, the Inner Dispersal Loop around downtown, and the numerous bridges throughout the region. The financial element (*Chapter 6*) discusses the capital, operating, and maintenance costs for the recommended roadway system.

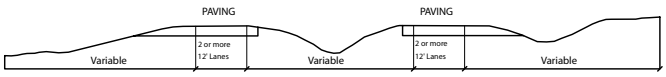
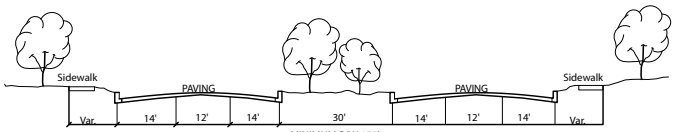
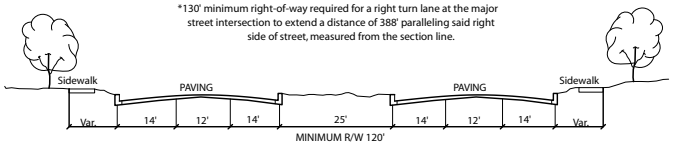
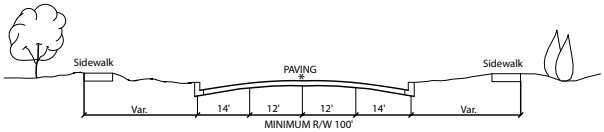
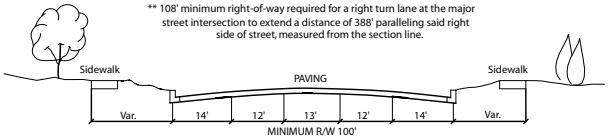
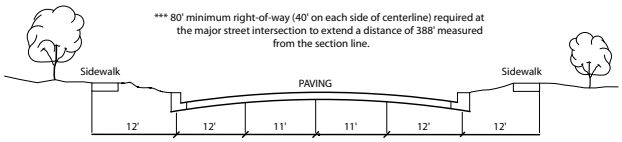
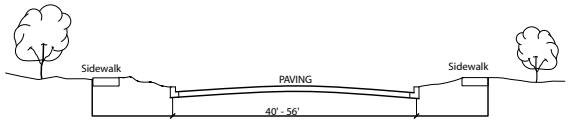
There are several maintenance priorities in the region that have become evident over the past decades. Apart from clearly marked and identified needs for reconstructing 6 major interchanges, a few of the expressways need reconstruction within the 2030 plan horizon. I-244 and the Inner Dispersal Loop are the 2 facilities that need immediate attention. Costs to rebuild these 2 facilities have been considered in the financial section of the plan.

The Tulsa Region possesses a well-coordinated comprehensive land-use plan element that addresses roadways in the form of the *Major Street and Highway Plan* (MSHP). The MSHP identifies the ultimate build-out for roadways as adopted by each of the communities represented in the plan. The MSHP is considered a guiding document for any LRTP recommendations.

For the purposes of environmental streamlining and economic feasibility analysis, the recommended capacity improvements for the LRTP will have the same standards of development identified in the MSHP typical cross sections. These 2030 capacity improvements and typical cross sections are cross-referenced as shown in *Figure 14.*

FIGURE 14

Roadway Cross Sections as Adopted by the MSHP (recommended for all capacity improvements identified in the LRTP)

ROADWAY	LANES	DIAGRAM
FREEWAY/ EXPRESSWAY	Expressways 4 - 8 Lanes	 AS PER OKLAHOMA DEPARTMENT OF TRANSPORTATION STANDARDS
PARKWAY	Arterials 6 Lanes	 MINIMUM R/W 150'
PRIMARY ARTERIAL	Arterials 6 Lanes	 MINIMUM R/W 120'
SECONDARY ARTERIAL	Arterials 4 Lanes	 MINIMUM R/W 100'
SECONDARY ARTERIAL ALTERNATE	Arterials 5 Lanes	 MINIMUM R/W 100'
URBAN ARTERIAL	Arterials 4 Lanes	 MINIMUM R/W 70'
COMMERCIAL/ INDUSTRIAL COLLECTOR	Arterials 2 - 3 Lanes	 MINIMUM R/W 80' COMMERCIAL/INDUSTRIAL STREET WITH OPEN DRAINAGE (COUNTY) CENTRAL BUSINESS DISTRICT STREET

ROADWAY SYSTEM ISSUES AND ACTIONS

The automobile continues to dominate the transportation system and thus continues to be a major investment issue. The TMA roadways have benefited from construction undertaken over the past decade by the Oklahoma Transportation Authority (OTA), the Oklahoma Department of Transportation (ODOT), and numerous successful municipal general obligation bond issues and sales tax funded capital improvement programs in conformance with the region's LRTP. The expressway facilities in the region are nearly fully developed, with the major capital investments now shifting to eliminating the bottlenecks at major interchanges and greater investment in the maintenance and operating efficiency of the system.

Air quality in the TMA has also been a concern, especially since 1998. The Tulsa region went through a phase of detrimental weather patterns followed by successive years of mild weather, and currently the threat of nonattainment designation seems to have diminished somewhat. A proactive approach by the region in working on an interim plan with the EPA to develop an Early Action Compact (EAC) has been successful. The specific modeling efforts that were undertaken since 2002 have demonstrated that the region can be successful in avoiding the nonattainment designation, particularly with a successful public involvement campaign aimed at minimizing pollution. Even as air quality improved over the past decade it seems likely that the area will continue to be challenged in meeting the 8 hour ozone standard, particularly if there is a pattern of bad weather.

The combination of the successful *Ozone Alert!* program, increased activity with the region's public transportation system, and limited funding for building or expanding roadways should cause the region's citizens and leaders to focus more attention on developing benign travel-demand management alternatives. Transportation system management will also continue to be a key priority for the region with improved signalization, more express bus routes, park-and-ride locations, and other mass transit options.

Safety will be a top priority for the region as well, with focus on applying technology to improve system efficiency, user education, and law and regulation enforcement. Also, the Intelligent Transportation System (ITS) Architecture, developed in 2003, and the adopted ITS Implementation Plan will increase safety and help alleviate the region's congestion with less emphasis on further capacity expansion.

Regional Connections

The economy of the TMA, to a large extent, relies on effective connections with other urban and rural markets. The TMA is well-connected, with roadways to surrounding regions and states. To build on the current level of service and to expand opportunities as available is appropriate and necessary.

- Support roadway maintenance activities by all agencies involved to ensure reliability and adequate service level with respect to grade crossings and bridges
- Encourage development and improvement of key metropolitan roadway linkages to Kansas City and Dallas to achieve an improved level of service
- Support a detailed Major Investment Study, in cooperation with ODOT and/or OTA and the Kansas DOT, of a direct route connecting Tulsa with Wichita, Kansas and the I-70 corridor to the northwest
- Encourage development and real-time dissemination of information related to connections and education regarding Tulsa area services to through-travelers, including truckers

Environmental Sensitivity

Quality of life in the long term is affected by the region's concern for environmental quality. Vehicular pollution should be addressed in the primary context of automobiles and efficiency. Fuel-efficient, less-polluting automobiles are possible with the advent of improving and new technology. It is also important to address the problem with a more complete range of transportation alternatives including removal of bottlenecks, completion of the area expressway and arterial systems, alternative fuels, and alternative modes of travel. Land use plays a primary role in such decision-making. The following are recommended actions for promoting environmental opportunities and further enhancing livability in the region.

- Encourage and support the region's award-winning *Ozone Alert!* program in its efforts to educate stakeholders and the public and to influence public policy that addresses health concerns related to vehicular pollution
- Support increased public education related to flexible work schedules, alternative modes of travel, and a competitive transit alternative
- Promote nonmotorized modes of travel including bicycling and walking
- Support efforts to alleviate noise impacts with improved facility design that is compatible with land use and mitigation of construction-related noise
- Minimize environmental impacts to wetland acreage and disruptions to wildlife and encourage consideration of environmental impacts due to any changes in the transportation system
- Reduce visual impacts of roadway facilities to help improve aesthetics by planting trees in the roadway rights-of-way, placing electrical power lines underground, and encouraging designs that are aesthetically appealing and conducive to urban environments
- Minimize roadway impacts to neighborhoods, commercial areas, industrial sites, cultural centers, and other establishments, both existing and planned, and encourage consideration of future transportation system plans in land use decision-making
- Encourage employment location centers to develop around the existing transportation infrastructure
- Involve the private sector and other stakeholders in making land-use and transportation decisions
- Coordinate land development and transportation infrastructure development and investigate opportunities to involve the private sector in cost-effective development practices
- Minimize displacement of residents and businesses in implementing the LRTP through corridor studies and environmental review

Congestion

In 2000, approximately 30% of the vehicle miles traveled in the TMA occurred on congested roadways. Congestion will continue to worsen if the area lags behind in investment and expansion to meet the future demand. Lost time in traffic will not only cause loss in economic productivity but also will decrease driver judgment and increase driver stress. The following actions are recommended.

- Support funding for roadway expansion as appropriate to address existing and anticipated congestion
- Actively seek funding to eliminate bottlenecks, particularly at expressway-to-expressway interchanges, identified and prioritized by regional stakeholders
- Support incident-management programs with the aid of local law enforcement agencies to reduce incident-related travel delays
- Periodically review and revise the congestion management system plan for the TMA to identify and review recurring and nonrecurring congestion issues
- Promote utilization of flexible work schedules, carpool and vanpool programs, and other alternative modes of travel
- Continue to enhance roadway capacity with technology initiatives, such as deployment of Intelligent Transportation Systems, by requiring corridor studies to consider ITS as an integral part of building a roadway

Technology Options

Intelligent Transportation Systems will provide drivers with adequate information to plan a trip and ensure safer and quicker travel. Roadways, as a static infrastructure, need to evolve to be dynamically linked with user needs. The majority of urban areas in the country are moving forward with ITS implementation, providing variable message signs, video monitoring of incidents, dispatch of emergency personnel in real time to incident locations, and alternative transportation routes to motorists. The shrinking share of resource spending on capacity expansion will compel transportation policy to expand or use capacity in a more effective manner. ITS deployment will begin with a simple road map to include all stakeholders involved and development of a comprehensive ITS strategic plan, also called ITS Architecture, for the region.

- Implement the newly developed ITS Strategic Plan (*Tulsa Intelligent Transportation Systems Architecture, 2003*) for the TMA with input from roadway users and stakeholders
- Actively pursue the development of a regional Traffic Management Center
- Develop a list of potential ITS projects and support agencies in capacity building
- Utilize technology to provide real-time information to users about roadway conditions including incidents, construction and major events

Integration with Other Modes

Personal transportation modes such as bicycling, walking, transit, and carpooling often interact with automobile transportation. Roadways need to be designed and maintained to accommodate all modes of transportation.

- Strongly encourage and support development of park-and-ride facilities along major travel corridors
- Support provision for bicycle/pedestrian facilities in all projects from the planning stage through final design
- Maintain and improve truck routes to rail, waterway, and air terminals/facilities
- Incorporate Intelligent Transportation Infrastructure Technology options to integrate the use and function of each transportation mode

Safety

- Pursue a region-wide accident investigation task force, comprised of professionals with a commitment to improving intersections at high collision locations, to study causes; also encourage the use of standard designs for intersections throughout the TMA
- Maintain the existing roadway systems; coordinate performance measures monitored by various entities in the region
- Study and report collisions to the public in an effort to bring attention to specific problem areas
- Support federal and state road safety education programs in ways that improve public communication and comprehension
- Encourage enforcement of existing traffic regulations, including speed limits, along with the newly adapted quick-clearance legislation
- Address appropriate driving education for youth and elderly to enhance safety
- Improve signage to accommodate an aging population and support consistent traffic signage on roadways and intersections throughout the region
- Support adequate lane width standards and provision of safer shoulders in the TMA
- Encourage expansion and enhancement of an incident management program including courtesy patrols on major expressways
- Investigate truck-related safety issues and railroad crossings for improved safety consideration

TABLE 3
LRTP Recommended Roadway Capacity Improvements

EXPRESSWAYS		Through Lanes
I-44	I-44/I-244 Junction to SH-66	8 Lanes
I-44	Arkansas River to Sheridan Rd.	6 Lanes
I-44 (east)	SH-66 to Creek Turnpike	6 Lanes
I-44/Turner Turnpike	SH-97 to Creek Turnpike	6 Lanes
I-44 (west)	I-244 to US-75	6 Lanes
US-169	I-244 to 71st St. South	8 Lanes
US-169	I-244 to SH-20 (116th St. North)	6 Lanes
US-169	91st St. South to Memorial Drive	6 Lanes
US-75	I-44 to SH-67 (151st St. South)	6 Lanes
US-75	SH-11 (Gilcrease Exp.) to 86th St. North	6 Lanes
US64/SH-51 (Broken Arrow Exp.)	71st Street South to Muskogee Turnpike	6 Lanes
Gilcrease Expressway	I-44 to Lewis Ave.	4 Lanes
Creek Turnpike	Arkansas River to Memorial Drive	6 Lanes

EXPRESSWAY INTERCHANGE RECONSTRUCTION
I-44 and US-64/SH-51 (Broken Arrow Expressway)
I-44 and US-169
I-44 and SH-66 (east)
I-44 and US-75
I-244 and US-412/US-64 at the northwest corner of the Inner Dispersal Loop
US-169 and US-64/SH-51 (Broken Arrow Expressway)

GRADE-SEPARATED INTERCHANGE CONSTRUCTION
I-44 and 145th East Ave.
I-44/Turner Turnpike and Hilton Rd. (96th St. South)
US-75 and 116th St. North
US-75 and 111th St. South
US-75 and 141st St. South
US-412 and 305th East Ave. (US 412P)
Blue Starr Road and SH-66/BNSF Railroad (Claremore)

ARTERIALS		THROUGH LANES
SH-20	US-169 to I-44/Will Rogers Turnpike	4 Lanes
SH-20	SH-66 to SH-88	4 Lanes
SH-20	US-75 to US-169	4 Lanes
SH-66	SH-33/SH-66 to SH-97/Main St.	4 Lanes
SH-72	SH-51 to 161st St. South	4 Lanes
SH-88	Blue Starr Rd./116th St. North to SH-20	4 Lanes
SH-97	Existing SH-97 to SH-20	2 Lanes
SH-97	2nd St. to 12th St.	4 Lanes
SH-97T East	SH-97 to Old North Rd.	2 Lanes
SH-97/Wilson Rd.	2nd St. to Morrow Rd.	6 Lanes
SH-167/193 East Ave.	I-44/US-412 to SH-266	4 Lanes
SH-266	US-169 to SH-167/193rd East Ave.	4 Lanes
SH-266	SH-167 to I-44/Will Rogers Turnpike	4 Lanes
11th St. South	129th East Ave. to 145th East Ave.	4 Lanes
12th St.	SH-97 to Adams Rd.	4 Lanes
25th West Ave.	Edison Rd. to Pine St.	4 Lanes
31st St. South	Garnett Rd. to 145th East Ave.	4 Lanes
33rd West Ave.	61st St. South to 71st St. South	4 Lanes
33rd West Ave.	41st St. South to I-44	4 Lanes
36th St. North	Cincinnati Ave. to Osage Dr.	4 Lanes
41st St. South	Garnett Rd. to 177th East Ave.	4 Lanes
41st St. South	33rd West Ave. to 65th West Ave.	4 Lanes
41st St. South	Yale Ave. to Sheridan Rd.	6 Lanes
41st St. South	Riverside Dr. to 33rd West Ave. (incl. River bridge)	4 Lanes
41st West Ave.	Apache St. to Newton Rd.	2 Lanes
43rd St. North	Black Dog Trail Rd. (N. 41st - 52nd West Ave.) to SH-97	2 Lanes
49th West Ave.	Creek Turnpike to 91st St. South	2 Lanes
49th West Ave.	61st St. South to I-44	4 Lanes
49th/41st West Ave.	Edison Rd. to Newton Rd.	4 Lanes
51st St. South	Garnett Rd. to 145th East Ave.	4 Lanes
61st St. South	Riverside Dr. to Harvard Ave.	4 Lanes
61st St. South	145th East Ave. to 193rd East Ave.	4 Lanes
61st St. South	US-75 to 49th West Ave.	4 Lanes
71st St. South	225th East Ave. to 273rd East Ave.	4 Lanes
71st St. South	33rd West Ave. to US-75	4 Lanes
71st St. South	US-75 to Arkansas River	6 Lanes
76th St. North	US-169 to 129th East Ave.	4 Lanes
81st St. South	Lewis Ave. to SH-51	4 Lanes
81st St. South	SH-66 to SH-97	4 Lanes

ARTERIALS - Continued		THROUGH LANES
86th St. North	20th West Ave. to Cincinnati Ave.	2 Lanes
86th St. North	US-75 to US-169	4 Lanes
86th/91st St. South/Canyon Rd.	49th West Ave. to SH-66	4 Lanes
91st St. South	Delaware Ave. to 193rd East Ave.	4 Lanes
91st St. South	Elwood Ave. to Peoria Ave./Elm St.	4 Lanes
96th St. North	US-169 to 145th East Ave.	4 Lanes
96th St. North	Memorial Dr. to Garnett Rd.	4 Lanes
96th St. South	US-75 to Peoria Ave./Elm St.	4 Lanes
101st St. South	Riverside Drive to SH-51	4 Lanes
103rd/106th St. North	Osage Dr. to Cincinnati Ave.	2 Lanes
106th St. North	US-169 to 145th East Ave.	4 Lanes
106th St. South	161st West Ave. to 153rd West Ave.	2 Lanes
111th St. South	Yale Ave. to Garnett Rd.	4 Lanes
116th St. North	US-75 to US-169	4 Lanes
121st St. South	Riverside Drive to SH-51	4 Lanes
129th East Ave.	21st St. South to 121st St. South	4 Lanes
129th East Ave.	76th St. North to 96th St. North	4 Lanes
131st St. South	Peoria Ave./Elm St. to Yale Pl.	4 Lanes
141st St. South	193rd East Ave. to SH-51	4 Lanes
141st St. South	Elwood Ave. to Peoria Ave./Elm St.	4 Lanes
145th East Ave.	I-44 to 41st St. South	4 Lanes
145th East Ave.	71st St. South to 121st St. South	4 Lanes
145th East Ave.	76th St. North to 126th St. North	4 Lanes
145th East Ave.	41st St. South to 71st St. South	6 Lanes
153rd West Ave.	106th St. South to 111th St. South	2 Lanes
161st East Ave.	Admiral Pl. to Tiger Switch Rd.	4 Lanes
161st East Ave.	51st St. South to 61st St. South	4 Lanes
161st East Ave.	111th St. South to 131st St. South	4 Lanes
177th East Ave.	51st St. South to 101st St. South	4 Lanes
193rd East Ave.	I-44 to 121st St. South	4 Lanes
241st East Ave.	101st St. South to 141st St. South	4 Lanes
Adams Rd.	10th St. South to 12th St. South	4 Lanes
Admiral Pl.	Garnett Rd. to 129th East Ave.	4 Lanes
Admiral Pl.	145th East Ave. to Creek Turnpike	4 Lanes
Anderson Rd.	177th West Ave. to Shell Creek Rd.	2 Lanes
Armstrong Rd.	Memorial Dr. to Riverview Rd.	4 Lanes
Delaware Ave.	81st St. South to 91st St. South	4 Lanes
Elwood Ave.	SH-67/151st St. South to 141st St. South	4 Lanes
Elwood Ave.	96th St. South to 111th St. South	4 Lanes
Black Dog Trail Rd. (N. 41st - 52nd W Ave.)	Gilcrease Expressway to SH-20	4 Lanes

ARTERIALS - Continued		THROUGH LANES
Garnett Rd.	116th St. North to 86th St. North	4 Lanes
Garnett Rd.	11th St. South to Pine St.	4 Lanes
Garnett Rd.	81st St. South to 111th St. South	4 Lanes
Harvard Ave.	91st St. South to 101st St. South	2 Lanes
Harvard Ave.	61st St. South to 91st St. South	4 Lanes
Lewis Ave.	81st St. South to 91st St. South	4 Lanes
Memorial Dr.	161st St. South to Mingo Rd.	4 Lanes
Memorial Dr.	I-44 to 151st St. South	6 Lanes
Mingo Rd.	21st St. South to 41st St. South	4 Lanes
Mingo Rd.	71st St. South to 121st St. South	4 Lanes
Peoria Ave.	61st St. South to Riverside Dr.	4 Lanes
Peoria Ave./Elm St.	91st St. South to SH-67/151st St. South	4 Lanes
Pine St.	SH-11/Gilcrease Expressway to SH-66	4 Lanes
Pine St.	25th West Ave. to Union Ave.	4 Lanes
Pogue Airport Access Rd.	SH-97T to Airport Rd.	2 Lanes
Port Rd. Extension	SH-11 to Sheridan Rd.	4 Lanes
Riverside Dr.	101st St. South to 121st St. South	4 Lanes
Riverside Dr.	I-44 to 101st St. South	6 Lanes
Riverside Dr. (Scenic Parkway)	Houston Ave. to I-44	4 Lanes
Sheridan Rd.	Apache St. to 36th St. North	4 Lanes
Sheridan Rd.	81st St. South to 101st St. South	4 Lanes
Union Ave.	51st St. South to 91st St. South	4 Lanes
Wekiwa Rd.	SH-97 to 129th East Ave.	4 Lanes
Yale Ave.	101st St. South to 121st St. South	4 Lanes
Yale Ave.	Pine St. to Apache St.	4 Lanes
Yale Ave.	US-64/SH-51 (Broken Arrow Exp.) to I-44	6 Lanes
Yale Ave.	61st St. South to 101st St. South	6 Lanes
Yale Ave./Yale Pl.	121st - 131st St. South (incl. River bridge)	4 Lanes