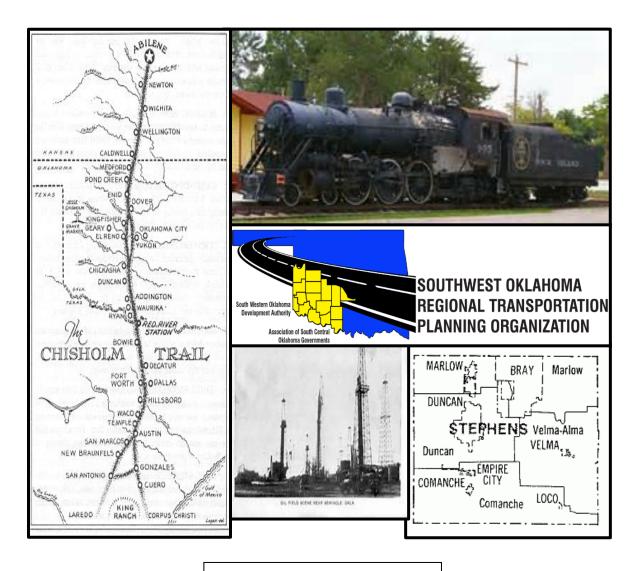
# STEPHENS COUNTY OKLAHOMA

# 2040 LONG RANGE TRANSPORTATION PLAN



Amendment #1 February 28, 2019

# Prepared by: Southwest Oklahoma Regional Transportation Planning Organization

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In cooperation with:
Cities and Towns of Stephens County
Red River Transportation
Oklahoma Department of Transportation
Federal Highways Administration
Association of South Central Oklahoma Governments
South Western Oklahoma Development Authority
Pathways to a Health Stephens County

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#### Resolution No. 2019-4

Adopting Amendment #1 to the Stephens County 2040 Long Range Transportation Plan

Whereas, the South Western Oklahoma Development Authority by Resolution 09-04 created the Southwest Oklahoma Regional Transportation Planning Organization (SORTPO); and

Whereas, through a Resolution 16-06 the South Western Oklahoma Development Authority expanded the regional transportation planning area to include the Association of South Central Oklahoma Governments (ASCOG), and

Whereas, SORTPO is tasked with developing a regional long range transportation plan; and

Whereas, the long range transportation plan establishes goal and transportation strategies addressing the region's needs; and

Whereas, the Stephens County 2040 Long Range Transportation Plan (LRTP) was prepared by SORPTO consultation with member local and state governments and local, state and federal transportation agencies and adopted on September 28, 2017; and

Whereas, Amendment #1 relates to revision to the traffic analysis zone population and employment thresholds; and

Whereas, Amendment #1 has been presented to the general public for review and comment in accordance with the SORTPO Public Participation Plan in addition to the series of public meetings between January 28, 2019 and February 26, 2019 and the Plan was posted on the SORTPO website for public review and comment; and

Whereas, the Plan has been prepared in accordance with all relative state and federal rules and regulations.

NOW, THEREFORE BE IT RESOLVED, that the SORPTO Policy Board hereby approves and adopts amendment #1 to the Stephens County 2040 Long Range Transportation Plan.

Approved and Adopted by SORTPO Policy Board and signed this 28th day of February, 2019.

Miller, Chairman SORTPO Policy Board

ATTEST:

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# **Chapter 1: Goal, Strategies and Issues**

## **SORTPO History**

In 1970, Oklahoma's governor established eleven (11) sub-state planning districts. Subsequently, the local governments served by the planning districts created the eleven (11) Councils of Governments (COGs) using the sub-state planning district boundaries. These districts make up the Oklahoma Association of Regional Councils (OARC). South Western Oklahoma Development Authority (SWODA) and the Association of South Central Oklahoma Governments are two of the eleven (11) COGs.

In April 2012, the Oklahoma Department of Transportation (ODOT) entered an agreement with OARC to oversee development of the regional transportation planning process and the regional public participation process in the non-metropolitan areas of the state. Three councils of governments were selected as pilot projects: SWODA, Northern Oklahoma Development Authority (NODA) and Central Oklahoma Economic Development District (COEDD). SWODA on October 13<sup>th</sup>, 2009 by Resolution 09-04 (Appendix A) created the Southwest Oklahoma Regional Transportation Planning Organization (SORTPO) and was tasked with the responsibility of developing a regional plan that included preparation of eight (8) county plans. In Federal Fiscal Year (FFY) 2016, through a collaborative effort involving SORTPO, the Association of South Central Oklahoma Governments (ASCOG) and the ODOT a transportation planning pilot project comprising sixteen counties was initiated representing two Councils of Governments SWODA and ASCOG. The SWODA Board of Trustees adopted Resolution 16-06 (Appendix B) amending the SORTPO region.

Located in southwest Oklahoma, the SORTPO region is comprised of 14,180 square miles. (Map 1.1). The SORTPO region is comprised of sixteen (16) counties, one hundred-twenty (120) cities and towns and nineteen (19) conservation districts. Total population for the SORTPO region according to the 2010 U.S. Census Bureau was 416,257.

Population data obtained from the 2011- 2015 American Community Survey (ACS) estimates the population has increased to 422,165. Although much of the region is comprised of large tracts of farming and agriculture lands there are multiple areas that contain urbanized areas that feature regional medical facilities, universities, military installations and governmental offices. Population growth and shifts for the SORTPO region are dependent on many

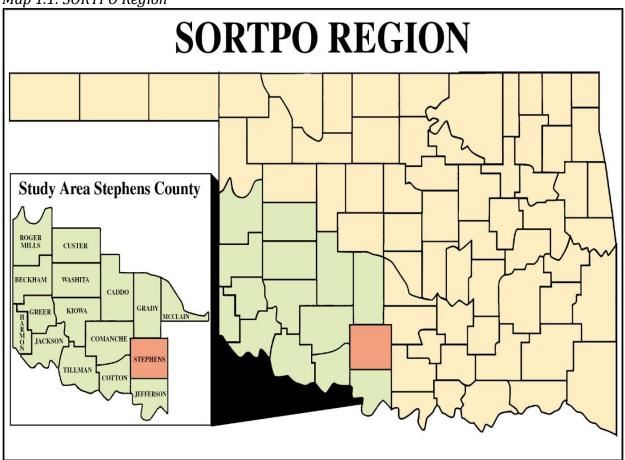


factors depending on a county. Each County in the region although a separate entity is interconnected through commerce, employment, health services, education and transportation.

All aspects of the planning process are overseen by the SORTPO Policy Board. The SORTPO Technical Committee serves as the advisory group for transportation planning and policy initiatives. This committee reviews transportation planning work efforts and provides a recommendation to the SORTPO Policy Board for their consideration and

action. The day-to-day activities of SORTPO are supported by staff located in the SWODA (Burns Flat) and ASCOG (Duncan) offices. Staff, equipment, supplies, rent, consulting studies, and other expenses used to support staffing operations are reimbursable to SORTPO by the Federal Highway Administration (FHWA) State Planning & Research (SPR) program funds at 80% of the total amount of the work effort and the local match of 20% is provided by SWODA.





# **Regional Transportation Planning**

Regional transportation planning is a collaborative process designed to foster participation by all interested parties such as business communities, community groups, elected officials, and the general public through a proactive public participation process. Emphasis by the FHWA and the Federal Transit Administration (FTA) is placed on extending public participation to include people who have been traditionally underserved by the transportation system and services in the region.

The purpose of the transportation system is to move people and goods in the safest and most efficient manner possible. SORTPO envisions the transportation system as a critical element of the quality of life for the citizens. A regional approach to long range transportation planning is necessary because of the rural nature and diverse characteristics of the population in Oklahoma. Transportation systems must safely, efficiently and effectively allow citizens to travel to work and to conduct their personal lives as well as provide for the efficient movement of goods to markets to support the county's economic vitality. Additionally, transportation decisions should carefully consider and reflect environmental and community concerns.

Transportation planning is a process that develops information to help make decisions on the future development and management of transportation systems. It involves the determination of the need for new or expanded roads, transit systems, freight facilities

and bicycle/pedestrian facilities their location, their capacity and the future needs. The process of developing the LRTP provides an opportunity for participating in the planning of the future transportation system. The process allows the community to focus their attention on transportation in the context of Stephens County as



well as the SORTPO region. The LRTP was developed within the regulatory framework of MAP-21 and the Fixing America's Surface Transportation Act (FAST Act). The LRTP establishes the goals, objectives and transportation strategies for addressing the region's transportation needs. The LRTP establishes the goals, objectives and transportation strategies for addressing the region's transportation needs. This planning process follows the three "c's" identified by federal transportation regulations: continuing, cooperation and comprehensive.

# Purpose of Plan

The Stephens County 2040 LRTP is a document used by the county, cities, towns, agencies, businesses and residents as a guide to maintain and improve the region's transportation system through 2040. The year 2040 was chosen as the planning horizon year for the LRTP for the following reasons:

- The year 2040 is far enough into the future to allow for the anticipated growth of the area to be implemented and
- Allows the local governments and participating agencies to plan for long range solutions to anticipated needs.

The Plan is an important tool and assists communities in focusing their limited funds on projects that give them the best value and benefit for funding. The purpose of the long-range transportation plan is to direct investment of available resources toward meeting the region's highest priority needs. The needs are determined by comparing the Plan's goals, "What do we want to accomplish over the life of the plan?" with current conditions and forecasts, "Where are we starting, and how are demographics and economics expected to change?" The projects and strategies included in the LRTP arise from the

needs and span the twenty-year planning period.

A key concept that underlies the discussion of needs is affordability. With limited fiscal resources, every jurisdiction that owns and operates part of the countywide transportation system must consider what they can afford to operate and how to maintain into the future.

People of all ages are making different decisions about where they choose to live, and what constitutes a positive quality of life. SORTPO's transportation planning process includes opportunities for the community's transportation stakeholders to participate in



development of the LRTP. This process includes soliciting comments from the public on current and future transportation needs. Appendix 4.1 illustrates survey results obtained during the planning process. Survey Question 10 includes information on the importance of selected transportation components in Stephens County. Three components received the highest rating: maintenance improvements and bridge improvements, smooth driving surface, and adding shoulders and improving steep hills and sharp curves. When selecting projects survey respondents indicated in Question 11 a higher preference for projects that improve safety, supports economic development, and reduces congestion.

As a means of achieving the successful implementation of the LRTP, the projects are developed in five-year increments. The five-year increment format will offer realistic goals in Chapter 5 relative to the LRTP's short range implementation activities. The incremental approach also provides a reasonable opportunity in scheduling state and /or federally funded transportation improvements within the county.

# Relationship and Requirements with State and Federal Agencies

The plan was developed in cooperation and in collaboration with municipal, county governments, transit providers, ODOT and the Federal Highway Administration (FHWA). The plan is the culmination of a continuing, cooperative, coordinated and comprehensive planning effort among the federal, state and local governments directed by SORTPO that provides for consideration and implementation of projects, strategies and services that should address the planning factors identified in The Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST) was signed into law in December 2015. The FAST Act added two additional factors for a total of ten (Table 1.1), which SORTPO should strive to address through their LRTP planning process.

#### Table 1.1: Planning Factors

1. Support the economic vitality of the United States, the States, nonmetropolitan areas, and metropolitan areas, especially enabling global competitiveness, productivity and efficiency.

- 2. Increase the safety of the transportation system for motorized and non-motorized users.
- 3. Increase the security of the transportation system for motorized and non-motorized users.
- 4. Increase accessibility and mobility of people and freight.
- 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 patterns.
- 6. Enhance the integration and connectivity of the transportation system across and between modes, people and freight.
- 7. Promote efficient system management and operation.
- 8. Emphasize the preservation of the existing transportation system.
- 9. Improve the resiliency and reliability of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
- 10. Enhance travel and tourism

Source: 23 USC Section 23 U.S.C 135 (d)(1)

In addition, The FAST Act continues MAP-21 requirement to State Departments of Transportation and Metropolitan Planning Organizations to use a performance-based approach to support seven (7) national goals for the transportation system. This requirement has not been mandated to non-metropolitan areas. Though specific performance measures are not identified in this plan, SORTPO recognizes the significance of such measures and will begin the collection of data needed to establish standards in future (Appendix C).

# **Goals and Strategies**

The planning process follows a hierarchy that includes goals and strategies to assist Stephens County in planning and prioritization of transportation projects and programs. Goals are general statements of what we want the future to be like.

The goals are used as guiding principles to choose among various options for transportation improvements. Therefore, they should be attainable and realistic. In addition, the goals should relate to present conditions and expected changes in those conditions. Strategies are specific, quantifiable steps towards the realization of those goals. Table 1.2 identifies the goal categories for the Stephens County.



Goals were developed from meetings held with stakeholders, technical committee and policy board meetings. It is important to recognize that many factors influence transportation system performance and transportation is only one component of a community. Economic development, housing, the economy and natural resources also can play a role. Implementing goals is the responsibility of local, county and state governments and SORTPO. Strategies were developed in coordination with partner agencies. The strategies developed do not fall solely under the responsibility of SORTPO. Local and community agencies should consider their roles in affecting outcomes. It will be necessary to prioritize the strategies and build the data collection and analysis, for those deemed most important, into annual programs, such as the Planning Work Program (PWP).

Table 1.2: Stephens County Goal Categories

Goal	Description
1. Accessibility and Mobility (pg. 7)	Improve accessibility and mobility for people and freight.
2. Awareness, Education and Cooperative Process (pg. 7)	Maintain intergovernmental cooperation and coordination, along with community participation and input in all stages of the transportation planning process.
3. Freight & Economic Vitality (pg. 8)	Support and improve the economic vitality of the county and region by providing access to economic development opportunities, such as business and industrial access, natural, scenic and historic resources or recreational travel and tourism.
4. Environment (pg. 8)	Reduce impacts to the county's natural environment, historic areas and underrepresented communities resulting from transportation programs and projects.

5.	Finance & Funding (pg. 9)	Seek and acquire a variety of transportation funding sources to meet the many diverse system needs.
6.	Maintenance and Preservation (pg. 9)	Preserve the existing transportation network and promote efficient system management to promote access and mobility for both people and freight.
7.	Safety & Security (pg. 9)	Improve the safety and security of the transportation system by implementing transportation improvement that reduce fatalities and serious injuries as well as enabling effective emergency management operations.
8.	Community & Health (pg.10)	Facilitate development of transportation projects and programs that support economic development and healthy lifestyles in the county and region.
9.	Tourism & Travel (pg. 10)	Improve travel opportunities through enhancement and preservation of access to tourism destinations or regionally significant facilities.

## Goal 1: Accessibility and Mobility

Improve accessibility and mobility for people and freight.

#### Strategies:

- 1. Support opportunities to expand the transit system(s) in the county that improves access to health care facilities, education facilities, recreation centers, cultural and tourist sites and employment.
- 2. Develop a system to collect and monitor changes in population, employment, and major employers by Traffic Analysis Zone (TAZ).
- 3. Conduct a freight assessment and study for the region.
- 4. Review transportation improvements and expansion of services to ensure that the facility for one (1) mode of transportation doesn't create barriers for the access or mobility of other modes.
- 5. Participate with ODOT, Class III Rail Companies and communities in activities that will upgrade rail tracks, bridges and trusses to support the standardized railcar weight of 286,000 pounds.

#### Goal 2: Awareness, Education and Cooperative Process

Maintain intergovernmental cooperation and coordination, along with community participation and input in all stages of the transportation planning process.

#### Strategies:

1. Participate on state, regional, and local committees regarding County transportation issues.

- 2. Educate key stakeholders, businesses, local leaders and the public on the purpose and function of SORTPO.
- 3. Annually review the Public Participation Plan.
- 4. Develop and implement a bicycle and pedestrian public awareness and education program.
- 5. Develop a clearinghouse for regional data sets, such as pavement management systems and geographic information systems to help form sound planning decisions.
- 6. Facilitate and support the coordination of regional training opportunities.
- 7. Develop a method to track the implementation of projects and regularly update the public on the status of projects, programs and finances.

## Goal 3: Freight & Economic Vitality

Support and improve the economic vitality of the county and region by providing access to economic development opportunities, such as business and industrial access, natural, scenic and historic resources or recreational travel and tourism.

#### Strategies:

- 1. Prioritize transportation projects that serve major employment and activity centers, rail facilities and freight corridors
- 2. Identify the locations of major employment centers, including existing and proposed developments and identify types of transportation available.
- 3. Coordinate with local and tribal governments on the placement of regionally significant developments.
- 4. Maintain local and state support for the general aviation airports.
- 5. Continue to coordinate transportation planning with adjoining counties, regions and councils of government for transportation needs and improvements beyond those in our region.
- 6. Working with area employers and stakeholders develop a database and map identifying transportation needs.
- 7. Identify and designate routes and connectors with heavy freight movements as freight priority corridors.

#### Goal 4: Environment

Reduce impacts to the county's natural environment, historic areas and underrepresented communities resulting from transportation programs and projects.

#### Strategies:

- 1. Consult with local, state and national agencies in the areas of environmental protection and historic preservation, in terms of transportation programs and projects.
- 2. Promote proper environmental stewardship and mitigation practices to restore and maintain environmental resources that may be impacted by transportation projects.
- 3. Promote the use of alternative fuels and technologies in motor vehicles, fleet and transit vehicles.

- 4. Develop database and mapping to identify the County's underrepresented communities.
- 5. Support designs of the transportation system that will protect cultural, historic, and scenic resources, community cohesiveness, and quality of life.
- 6. Develop a data file and create a map identifying location of wind farms and pipelines and relationship to communities and the transportation system.

# Goal 5: Finance and Funding

Seek and acquire a variety of transportation funding sources to meet the many diverse system needs.

### Strategies:

- 1. Maximize local leverage of state and federal transportation funding opportunities.
- 2. Increase private sector participation in funding transportation infrastructure and services.
- 3. Encourage multi-year capital improvement planning by local, county, tribal, and state officials that includes public participation, private sector involvement, coordination among jurisdictions and modes and fiscal constraint.
- 4. Assist jurisdictions in finding and applying for funds.

#### Goal 6: Maintenance and Preservation

Preserve the existing transportation network and promote system management to promote access and mobility for both people and freight.

#### Strategies:

- 1. Identify sources of transportation data and develop a procedure to collect the data and present to the public.
- 2. Identify and collect transportation performance data and compare to previous years' data.

#### Goal 7: Safety and Security

Improve the safety and security of the transportation system by implementing transportation improvement that reduce fatalities and serious injuries as well as enabling effective emergency management operations.

#### Strategies:

- 1. Coordinate with local governments and other agencies to identify safety concerns and conditions, and recommend projects to address key deficiencies.
- 2. Coordinate county and regional actions with the Statewide Highway Safety Plan.
- 3. Collect and routinely analyze safety and security data by mode and severity to identify changes and trends.
- 4. Assist in the designation of corridors and development of procedures to provide for safe movement of hazardous materials.
- 5. Adopt best practices to provide and improve facilities for safe walking and bicycling.

- 6. Incorporate emergency service agencies in the transportation planning and implementation process.
- 7. Support the Oklahoma Department of Transportation in its plans to add and improve roadway shoulders on two lane highways.
- 8. Reduce the number of at grade rail highway crossings.
- 9. Upgrade passively protected at grade rail highway crossings.

#### **Goal 8: Community & Health**

Facilitate development of transportation projects and programs that support active lifestyles in the region.

#### Strategies:

- 1. Integrate healthy community design strategies and promote active transportation to improve the public health outcomes.
- 2. Support development of transportation systems that provide opportunities for populations walking, bicycling and utilizing non-motorized modes.
- 3. Identify funding opportunities and partners to increase low cost transportation opportunities.
- 4. Establish partnerships with local groups and agencies to provide transportation services.

#### Goal 9: Tourism & Travel

Improve travel opportunities through enhancement and preservation of access to tourism destinations or regionally significant facilities.

#### Strategies:

- 1. Develop a regional map that identifies tourism destinations and regionally significant facilities.
- 2. Establish procedures to increase coordination and communication with local governments, tribal governments and state agencies to identify projects that impact the communities' transportation system.
- 3. Collaborate with local economic development authorities, State and Federal economic development agencies in the identification of current and future transportation projects.

# **Key Issues, Challenges and Trends**

There are many issues facing the area that have a direct or indirect impact on the transportation system. Rural communities have problematic transportation issues such as intersections, congestion and limited or no access to transit. This section is intended to identify these issues, challenges and trends. At the onset of the transportation planning process, the SORTPO staff, policy board and technical committee members identified key issues, trends and challenges that impact the transportation system. Key issues, challenges and trends were also identified through public surveys, stakeholder meetings, public comments, other plans, data sources, and reports.

#### Key Issues:

- Maintain access to healthcare and emergency services.
- Expand Transit Services.
- Forced school consolidations due to state of the State's flat revenues and multiple year budget cuts.
- Lack of shoulders on 2 lane highways.
- Urban versus rural mindset.
- Lack of funding to adequately maintain roadway systems and bridges.
- Improvements of rail crossings.
- Steep hills and sharp curves.
- Problematic traffic issue locations (areas with high accidents, intersections, truck generators).

## Challenges:

- Competition for medical professionals between urban and rural-
- Age of infrastructure.
- Attracting workforce to support the employment needs
- Access to affordable to high speed internet.
- Competition for industry/business.
- Coordination with developments by Native American Tribes.
- Economy is dependent on the oil and gas industry.
- Working together regionally to attract/maintain workforce, industry and community
- Funding limitation revenues continue to be limited to meet the transportation system needs over time.
- Maintain access to healthcare and emergency services.
- Lack of system to reevaluate how, when and where new roads are built versus investment in upgrade to the existing road system.

#### Trends:

- Population is declining in the rural areas.
- Freight traffic will grow along US 81 Highway and State Highway 7 which are major truck freight routes in the County. In addition, the County is centrally located between Interstates 35 and 44 creating additional opportunities for alternate truck freight routes.
- The population is aging.
- Motor vehicles will continue to be the primary means of transportation.
- Lakes and Parks, Simmons Center and Chisholm Trail Heritage Museum will continue as a regionally significant destination for recreation and tourism.
- The energy sector and farming community will continue to rely heavily on trucks in rural areas.
- Technology impact on retail, employment and how medical services are obtained.
- Autonomous vehicle technology.
- State of Oklahoma's budget negative impact on rural communities.

# **Chapter 2: Current Conditions**

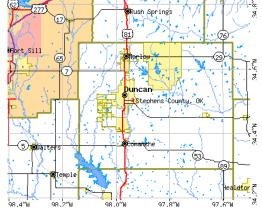
This chapter provides a "snapshot" of current conditions that relate to transportation in Stephens County. Demographics, economic conditions, environmental factors, community development and transportation and traffic data are included in this chapter. Stephens County is in south western Oklahoma (Map 1.1). The County is bordered by Jefferson County to the south, Grady and Garvin Counties to the north, Comanche and Cotton Counties to the west and Garvin and Carter Counties to the east.

# **History**

Stephens County on the eastern boundary of the SORTPO region and covers 891 square miles (870 land square miles and 21 square miles of water). Stephens County population was 44,806 (2011-2015 ACS) and a population density of 50.28 people per square mile. Within the County are four highways: US Highway 81 bisects the county to the north and south, SH 29 intersects US 81 in Marlow and extends eastward connecting to I-35 in

Garvin County, SH 53 extends east of US 81 in Comanche and connects to SH 76 in Carter County, SH 7 extends east of Duncan linking to I-35 in Murray Count and extends west linking to I-44 in Comanche County (Map 2.1). The County includes eight areas designated as a city or town, the largest being the City of Duncan.

The county seat of Stephens County is the City of **Duncan** and is centrally located in the county. Two highway systems intersect with Duncan: US 81 and SH 7. Duncan's economic



- climate has predominantly centered around oil-related services; most notably Halliburton Manufacturing and Oil Services. Located in Duncan are also the Chisholm Trail Heritage Center and the L. B. and Ola Simmons Community Activities Center, a recreation and convention center. Duncan is home to industries and employment centers such as Duncan Regional Hospital a regional hospital, Cameron University-Duncan Branch, and Red River Technology School.
- Marlow is located ten miles north of Duncan at the intersection of US 81 and SH 29. Marlow's economy is concentrated in farming and manufacturing associated with oil and gas industry.
- The City of **Comanche's** original townsite is in the original Indian Territory and on the historic Chisholm Trail. This city is bisected by US 81.
- The town of **Velma** is located 18 miles east of Duncan on SH 7 and is home to Joe Diffie and the 125-year-old annual Old Settler's Picnic.
- ➤ **Central High** is a small town of 1,199 incorporated in 1921 and is located north of SH 7, seven miles west of the intersection of US 81 and SH 7. It was named because it was near the center of a consolidated high school district (District 34).
- ▶ **Bray** is a small community located 9 miles east of Marlow on SH 29. In 1977 members of the Bray community incorporated the town to avoid annexation by Marlow and Duncan.

- Empire City is about three miles due west of U.S. Highway 81, midway between Duncan and Comanche. Originally an oil-boom town, the community started in the late 1910s as drilling activity in Stephens County mushroomed.
- **Loco** is a village of 150 and has frequently been noted on lists of unusual place names.

Table 2.1 provides population data for the cities, towns and County between 1980-2015. Additional demographic data can be found in Appendices 2.1-2.7. As the population fluctuates, either through economic changes, in or out migration or shifting within the region the needs of the communities including education, health care, social services, employment, and transportation remain relatively stable. Land use and development changes that particularly affect transportation in rural areas include, but are not limited to, loss or gain of a major employer, movement of younger sectors of the population to more urban areas, tribal land development.

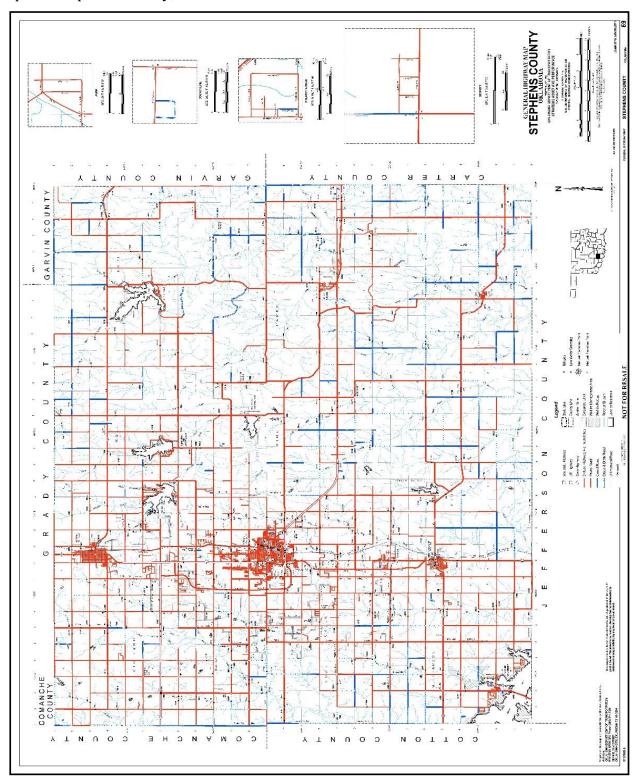
Transportation is crucial to keeping older adults independent, healthy and connected to friends, family, recreation, shopping and health services. However, older residents' transportation needs differ based on their health, income, marital status, age, race and whether they live in a city/town or rural county area. The needs of this segment of population will continue to influence the transportation needs and services for this region.

Table 2.1: Stephens County Population 1980-2015 ACS Estimate

	1980	1990	2000	2010	2011-2015 ACS ESTIMATED POPULATION
Bray	591	925	1,035	1,209	1,291
Central High	n/a	n/a	954	1,199	982
Comanche	1,937	1,695	1,556	1,663	1,590
Duncan	22,517	21,732	22,505	23,431	23,317
Empire City	13	219	734	955	810
Loco	215	160	150	122	115
Marlow	5,017	4,416	4,592	4,662	4,632
Velma	831	661	664	620	697
Balance of Stephens County	12,298	12,491	10,992	11,187	11,449
Stephens County, TOTAL	43,419	42,299	43,182	45,048	44,806

Source: American Fact Finder, US Census

Map 2.1: Stephens County, Oklahoma



#### Data obtained from the 2011-2015 ACS further reveals:

- $\checkmark$  Population was distributed between male (48.7%) and female (51.3%),
- ✓ Median age of 40.1 years of age,
- ✓ Race:
  - o White 84%,
  - o African American 2.1%,
  - o American Indian 5.8%,
  - Asian 0.5% and
  - o Hispanic/Latino 6.8%,
- ✓ Mean travel time to work 20.3 minutes
- ✓ Vehicles Available Workers 16 years and over
  - No vehicles available 2.6%
  - One vehicle available 19.2%
  - o Two vehicles available 43.1%
  - o Three or more vehicles available 35.1%
- ✓ Occupied Housing Units 20,682
  - o Owner Occupied Units 17,868
  - o Renter Occupied Units 2,814
  - Single Family Detached Housing Units 17,277
  - o Mobile Home or Other type of Home 1,521
- ✓ Educational Attainment population 25 years and Older
  - o High School Graduate 11,857
  - o Some College 7,549
  - o Bachelor's Degree 3,897
- ✓ Commute Patterns to Work Age 16 years and Older
  - o Car, truck or van 81.8%
  - o Public Transportation 0.6%
  - o Walked 1.9%
  - Other Means 2.4%
  - Worked at Home 2.0%
- ✓ Civilian Employed population 16 years and over 19,029
  - o Agriculture and forestry 2,827
  - o Construction 1,227
  - o Manufacturing 1,812
  - o Retail Trade 2,180
  - Transportation and warehousing and utilities 930
  - o Professional, scientific and management 1,125
  - Educational service and health care and social assistance 4,052
  - Arts, entertainment and recreation and accommodations 1,323
  - o Other services, except public administration 1,121

Annual civilian labor force data for years 2006-2015 is in Figure 2.1 and Figure 2.2 illustrates the Civilian Labor Force between 1990-2015. The information portrayed in this graph developed by the Federal Reserve Bank illustrates a 25-year picture of the

fluctuation in the Stephens County Civilian Labor Force. Figure 2.3 contains occupation and industry information for the County.

Stephens County Annual Civilian Labor Force 2006-2015 Year

Figure 2.1: Stephens County, Civilian Labor Force 2006 - 2015

Source: BLS

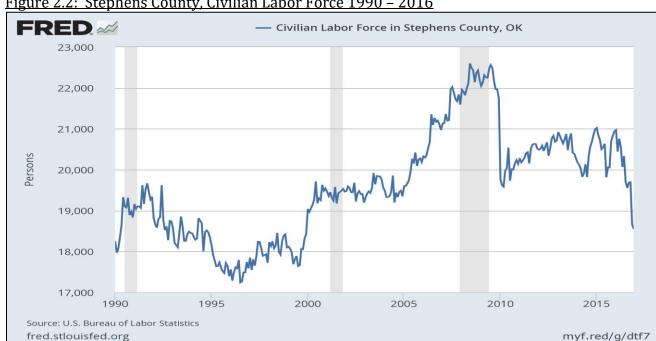


Figure 2.2: Stephens County, Civilian Labor Force 1990 – 2016

Source: US. Bureau of Labor Statistics. Release: Unemployment in States and Local Areas (all other areas)

Growth Rate Calculations | US recession dates

Stephens County Business Patterns, 2014 Industries not classified Accommodation and food services Health care and social assistance Industry Category Administrative and support and waste management... Professional, scientific, and technical services Finance and insurance Transportation and warehousing Wholesale trade Construction Mining, quarrying, and oil and gas extraction Total for all sectors 200 400 600 800 1,000 1,200 Number of Establishments

Figure 2.3: Stephens County Business Patterns, 2014

Source: US Census Statistics

Figure 2.4 provides information related to vehicle registration data obtained from the Oklahoma Tax Commission (OTC). Automobile registration between 2012-2016 remains unchanged while there has been a decrease in registrations for commercial trailer, commercial truck, and commercial and truck and trailer. The data in the graph confirms that the primary vehicle is the automobile.



Stephens County Motor Vehicle Registration,
2012-2016

Motor Cycle
Farm Truck
Comm'l Truck and Trailer
Commercial Truck

10000 15000 20000 25000 30000

■ 2016 Stephens County ■ 2015 Stephens County ■ 2014 Stephens County

Figure 2.4: Stephens County Motor Vehicle Registration, 2012-2016

Source: Oklahoma Tax Commission

Commercial Trailer

Automobile

5000

■ 2013 Stephens County ■ 2012 Stephens County

45000

35000

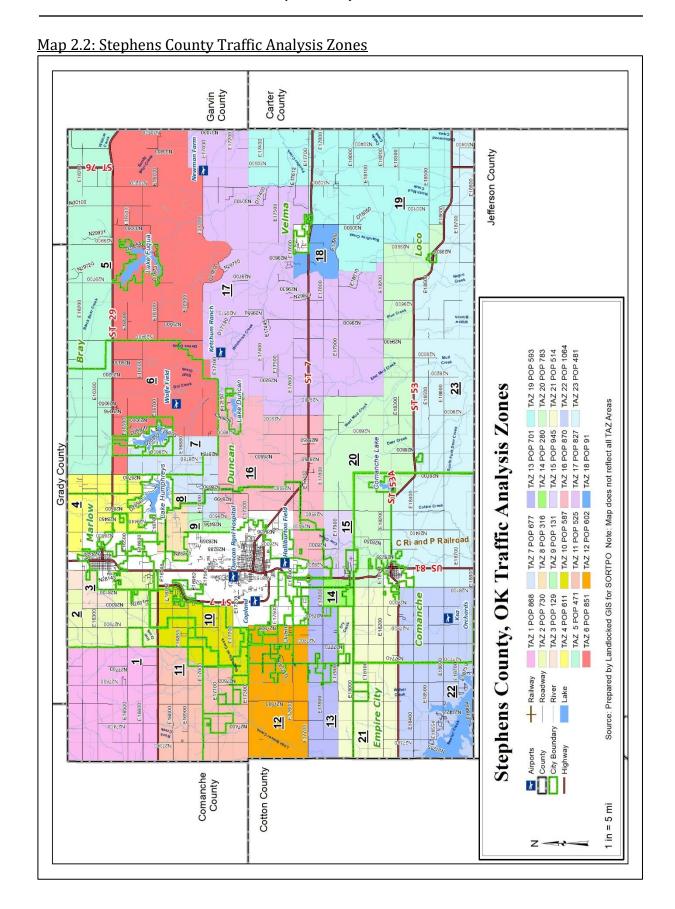
# **Traffic Analysis Zones**

The Traffic Analysis Zone (TAZ) Program is a specialized computer program used for delineating zones in support of the Census Transportation Planning Products (CTPP). TAZ delineation follows the decennial census and is designed to allow planning agencies the ability to define areas to associate demographic data that supports transportation system analysis. Boundaries of a TAZ typically follow U.S. Census boundaries and are an aggregation of several census blocks. Data for the plan was obtained by the 2010 U.S. Census Bureau, CTPP and Oklahoma Department of Commerce. The year 2015 is the base year for the plan and 2011-2015 ACS population estimate is the base population.

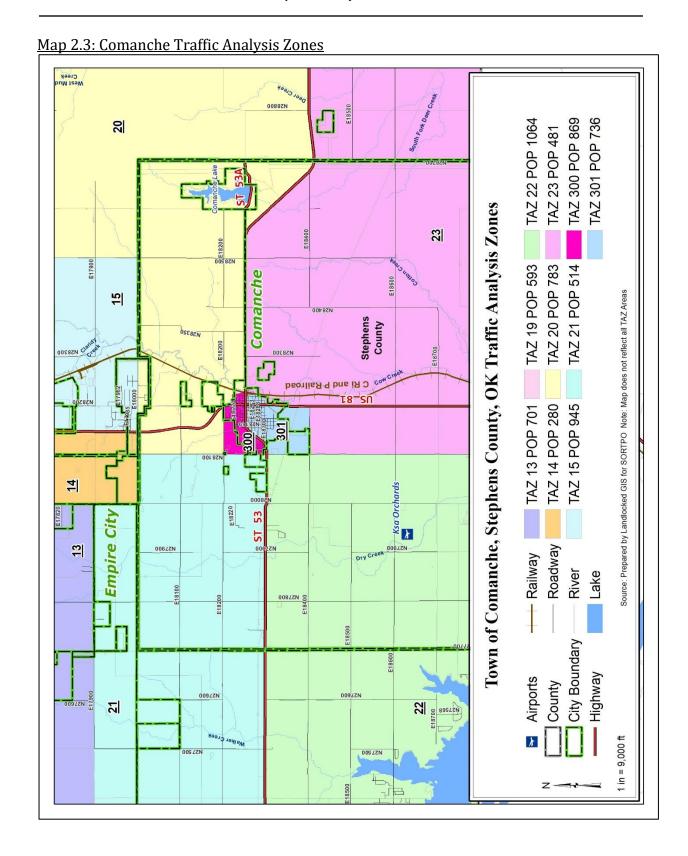
TAZ delineation for the areas other than Metropolitan Planning Organizations (MPO) are the responsibility of ODOT. Historically in non-MPO areas the TAZ boundary defaulted to the census tract boundary. Utilizing this default for the plan did not provide SORTPO with transportation data that met the needs of this planning process. SORTPO staff reviewed the existing TAZ boundaries and after analysis of data, community boundaries and TAZ guidelines boundaries were drafted. The RTPO's are responsible for developing these zones and supporting data. As rural transportation planning continues to mature the delineation of TAZ will allow acquisition of data that supports the transportation planning process. SORTPO staff developed TAZ boundaries based on county population as identified below:

- > Small populated counties (population < 6,000)
  - o population thresholds of 200 to 400 and employment thresholds of 200-300
- $\triangleright$  Medium populated counties (population 6,001 34,999)
  - o population thresholds of 400 to 600 and employment thresholds of 300-400
- ➤ Large populated counties (population > 35,000)
  - o population thresholds of 600 to 800 and employment thresholds of 400-500

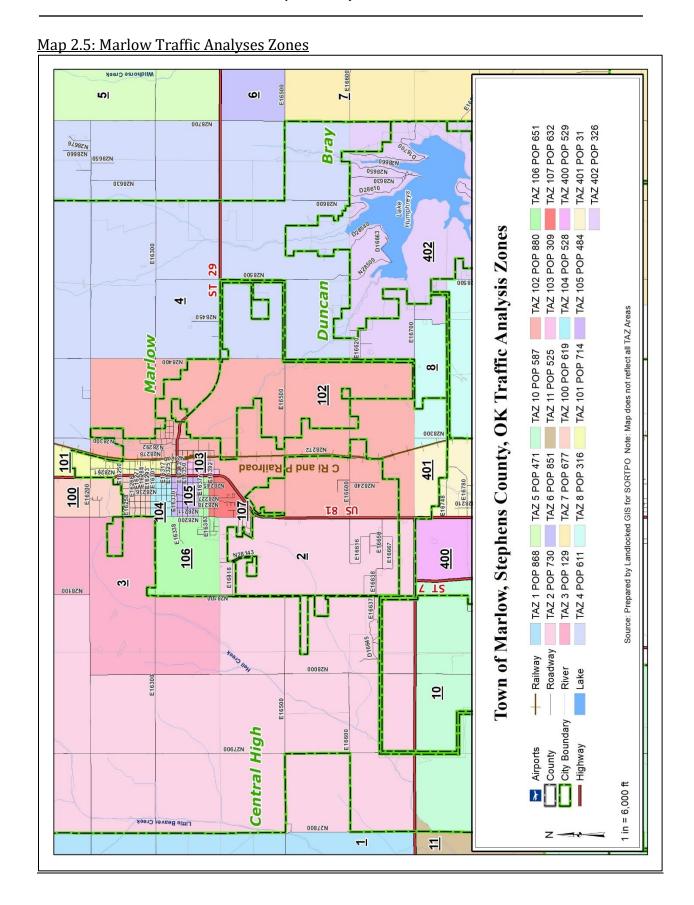
Geographically, the County and cities/towns were subdivided into eighty five (85) TAZs and the socio-economic data (including population and employment) are summarized for each TAZ. Map 2.2 illustrates the TAZ boundaries for the county. TAZ maps were established for the Comanche, Duncan, Marlow and Velma (Maps. 2.3 – 2.6). The 2010 population of 45,048 and 2015 ACS employment estimate of 19,029 were distributed to the TAZs. Appendix 2.8 provides information on the population and employment data by TAZ. TAZ numbers with population above 800 include: 1,6,15,16,17,22,102,300,405,408, 409, 412, 424, 425 and 427. Largest concentrations of employment are found in TAZ numbers: 16, 103, 400, 401, 409, 410, 423, 431, 435, 436, 438, 439, 444, 445, 446 and 450. The rural nature of the County requires the Plan development to consider that a major employer is determined by the individual community. In some instances, a major employer may be identified as an employer with as few as 5-9 employees. Major employers by city or town and County by TAZ are included in Appendix 2.9.



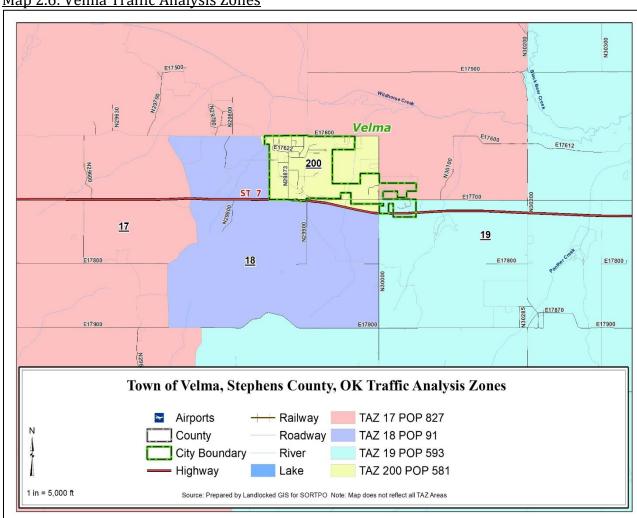
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Map 2.4: Duncan Traffic Analysis Zones 3 ST 29 2 403 R Duncan 102 and Clear Creek Lake ST 7 Humphreys 402 400 11 <u>401</u> 405 406 10 407 411 408 404 410 409 Duncan Rgnl
Hospital
423 421 418 417 Fitzpatrick Creek 420 412 425 424 422 415 413 419 416 414 429 430 432 442 427 1 428 437 436 435 441 440 434 447 445 446 448 449 444 450 12 14 13 20 Dry Creek 21 15 Town of Duncan, Stephens County, OK Traffic Analysis Zones TAZ 11 POP 525 TAZ 103 POP 309 TAZ 426 POP 102 County
City Boundary TAZ 2 POP 730 TAZ 3 POP 129 TAZ 12 POP 602 TAZ 13 POP 701 TAZ 105 POP 484 TAZ 407 POP 297 TAZ 417 POP 569 TAZ 427 POP 915 TAZ 437 POP 795 TAZ 447 POP 13 TAZ 408 POP 1062 TAZ 418 POP 344 TAZ 428 POP 418 TAZ 438 POP 209 TAZ 448 POP 129 TAZ 4 POP 611 TAZ 5 POP 471 TAZ 419 POP 618 TAZ 420 POP 96 TAZ 429 POP 719 TAZ 430 POP 577 TAZ 439 POP 548 TAZ 14 POP 280 TAZ 107 POP 632 TAZ 409 POP 869 TAZ 449 POP 0 TAZ 15 POP 945 TAZ 400 POP 529 TAZ 410 POP 726 TAZ 450 POP 571 Railway TAZ 6 POP 851 TAZ 16 POP 870 TAZ 401 POP 31 TAZ 411 POP 596 TAZ 421 POP 690 TAZ 431 POP 79 TAZ 441 POP 25 River TAZ 7 POP 677 TAZ 19 POP 593 TAZ 402 POP 326 TAZ 412 POP 979 TAZ 422 POP 706 TAZ 432 POP 642 TAZ 442 POP 489 TAZ 20 POP 783 TAZ 21 POP 514 TAZ 8 POP 316 TAZ 403 POP 78 TAZ 413 POP 663 TAZ 423 POP 64 TAZ 433 POP 569 TAZ 443 POP 678 TAZ 9 POP 131 TAZ 404 POP 659 TAZ 414 POP 736 TAZ 424 POP 821 TAZ 434 POP 605 TAZ 444 POP 2 TAZ 102 POP 880 TAZ 405 POP 803 TAZ 415 POP 721 TAZ 425 POP 823 TAZ 435 POP 471 TAZ 445 POP 188 1 in = 10,417 ft Source: Prepared by Landlocked GIS for SORTPO Note: Map does not reflect all TAZ Areas



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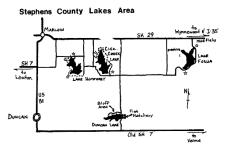


Map 2.6: Velma Traffic Analysis Zones

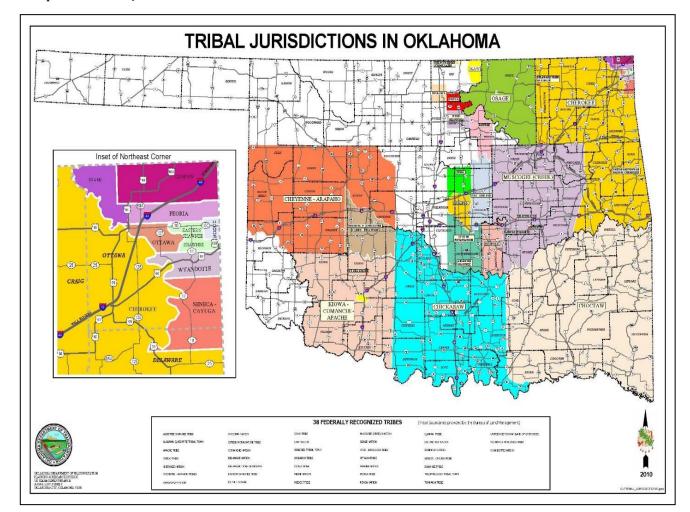
# **Physical Development Constraints and Conditions**

There are transportation facilities, land ownership, existing development and

environmental features that affect the growth of Stephens County. These constraints both physical and manmade have shaped and impacted the development of the county. Stephens County major constraints for development include: US 81, SH 7, SH 29, SH 53, Union Pacific (UP) rail lines, lakes, creeks, cities and towns, large land ownership, and tribal land. US 81 is a physical barrier splitting the county from the north to the south, the UP-rail line is parallel to the east of this highway. State Highway 7 bisects



the county east to west and connects to two Interstates (I-35 and I-44). State Highway 29 extends east of SH 81 from Marlow to I-35. State Highway 53 is in the southern 1/3 of the County connecting east to SH 76. Map 2.7 illustrates land under tribal jurisdiction.



Map 2.7: Tribal Jurisdictions in Oklahoma

#### Historic, Natural or Man Made Significant Features

Stephens County is home to environmental features natural and cultural resources which can influence the transportation system. The environmental features and constraints were identified using secondary source information from the following: United States Environmental Protection Agency (USEPA), Oklahoma Geological Survey, Oklahoma Department of Fish and Wildlife Resources, Oklahoma Department for Environmental Quality (ODEQ), United States Department of Agriculture (USDA), United States Department of the Interior Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Oklahoma University Geographic Information System (GIS) and other state and local agencies. There are many different types of environmentally sensitive areas and potential impacts to the natural and human environment that may be affected by various actions associated with the plan. These include (but are not necessarily limited to:

- Threatened and Endangered Species
- Wetlands
- Floodplains

- Surface and Ground Waters
- Stormwater Management and Erosion and Sediment Control
- Hazardous Materials
- Air Quality
- Historical/Cultural Resources
- Right-of-Way/Property Impacts, Including Impacts to Parks, Farmland and Neighborhoods
- Scenic View sheds
- Traffic and Train Noise

State and federal environmental regulations, require that environmental considerations be addressed in transportation decision making, plans and programs. Most transportation capital and maintenance projects have the potential to affect natural and human-made resources in both positive and negative ways. Appendix 2.10 summarizes environmental concerns Appendix 2.11 provides description of significant environmental features to be considered in development of residential, commercial/industrial or transportation projects.

# Public Safety Issues

The vulnerability of a region's transportation system and its use in emergency evacuations are issues receiving new attention with the threat of intentional damage or destruction caused by terrorist events and natural disasters. Therefore, security goes beyond safety and includes the planning to prevent, manage or respond to threats toward a region and its transportation system and users. There are many programs to help manage security concerns and emergency issues. SORTPO and its member jurisdiction transportation and emergency service staff are regular participants in security planning and preparation activities include development of the Stephens County Hazard Mitigation Plan. Ongoing participation in these planning activities helps prepare for and to better manage transportation safety and security situations.

MAP-21 required all states to prepare and annually evaluate their Strategic Highway Safety Plan (SHSP). A SHSP is a statewide, coordinated safety plan which includes goals, objectives and emphasis areas for reducing highway fatalities and serious injuries on all public roads. More information on the Oklahoma SHSP can be found on the ODOT website (<a href="http://www.okladot.state.ok.us/oshsp/index.htm">http://www.okladot.state.ok.us/oshsp/index.htm</a>).

The safety of the traveling public, regardless of vehicle type or highway system classification, is of principal concern for ODOT and SORTPO. Safety strategies are developed based on an analysis of key contributing factors such as crash data, highway inventories, traffic volumes, and highway configurations such as geometric challenges. When undesirable patterns become evident, specific countermeasures are identified based on a more in depth and detailed analysis of crash locations and causes.

#### Collisions

To help identify safety issues, traffic safety data must be analyzed. Trend analysis based upon multiple-years' worth of data provides a more accurate indication of the safety condition in the county. An analysis of collision records collected and maintained by ODOT was performed for the calendar years 2012-2016. Between 2012-2016 there were 3,270 collisions with thirty-nine (39) fatalities occurring on the roadways in



Stephens County. The highest concentration of collisions occurred along US 81. Tables 2.2 and 2.3 provides information on total collisions and collisions by concentration and severity. Rear end collisions represented 23.1% of collisions. Other collision types were caused by fixed object (19.6%) and right angle (14.9%). Map 2.8 illustrates the location of collisions for the time 2012-2016. Appendices 2.12 and 2.13 provide supplemental information on collision data.

Table 2.2: Stephens County Collision Total, 2012-2016

	FAT	INCAP INJ	NON INCAP INJ	POSSIBLE INJURY	PROPERTY DAMAGE	TOTAL
Collisions	32	138	407	520	2,173	3,270
Persons	39	170	554	800	X	1,563

Source: ODOT Traffic Engineering Div. Collision Analysis and Safety Branch

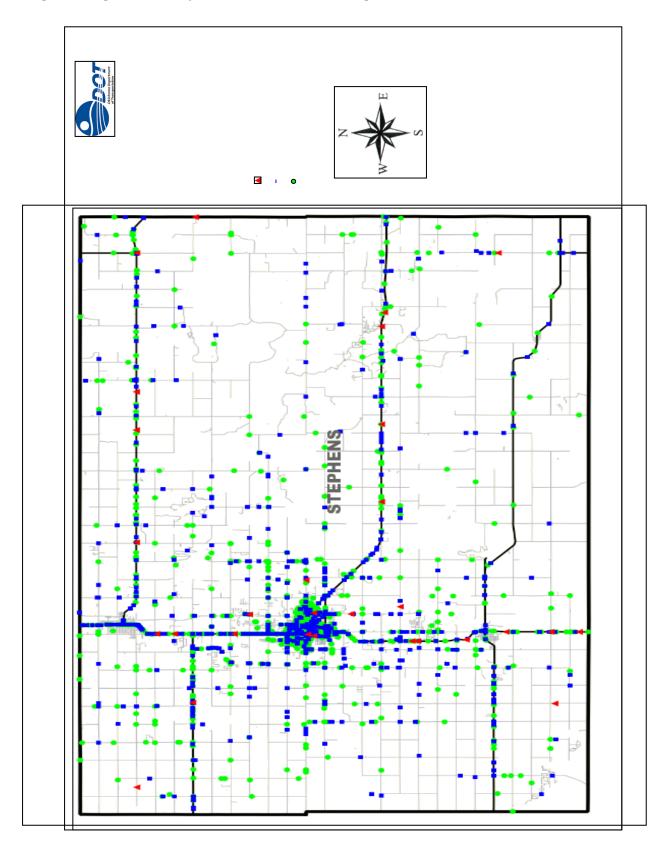
Table 2.3: Stephens County Collision Concentration, 2012-2016

CITY	HWY	CITY	CITY	MILE/	SEV	NUM	RANK
		STREET NAME	STREET NAME	ST.2	INDEX	COLLS	
Duncan	US-81		Elk Ave	02.21	142	100	1
Duncan	US-81		Walmart / Towne Plaza	02.60	61	47	2
Duncan	US-81		Plato Rd.	03.21	61	41	3
Duncan	SH-7	SH-7 Bypass	Elk Ave.	03.77	59	28	4
Duncan	US-81		Beech Ave	01.07	55	35	5
Duncan	US-81		Elder Ave.	01.51	40	33	6
Marlow	US-81	Broadway St.	Main St./SH 29	11.10	37	29	7
Marlow	US-81	Broadway St	SH 7	07.20	34	21	8
Duncan	US-81A	Main St.	10 St.	00.73	31	19	9
Duncan	US-81		Spruce Ave.	01.45	30	19	10
Duncan	US-81		Main St./US 81A	00.82	29	21	11

CITY	HWY	CITY	CITY	MILE/	SEV	NUM	RANK
		STREET NAME	STREET NAME	ST.2	INDEX	COLLS	
Duncan	SH-7A	Main St.	2 <sup>nd</sup> St.	00.63	28	14	12
Duncan	US-81		Pine Ave.	01.29	23	16	13
Marlow	US-81	Broadway St.	Caddo Ave.	10.47	23	16	14
Duncan	US-81		Camelback Rd.	04.21	23	13	15
Marlow	US-81	Broadway St.	Choctaw Ave.	10.63	23	12	16
Duncan	US-81A	Main St.	12 <sup>th</sup> St	00.89	23	11	17
Duncan	US-81		Bois D'Arc Ave.	00.11	22	15	18
	SH-29		SH 76	20.76	22	12	19
Duncan	SH-7		10 <sup>th</sup> St.	00.43	21	14	20

Source: ODOT Traffic Engineering Div. Collision Analysis and Safety Branch

Map 2.8 Stephens County 2012-2016 Collision Map



# **Existing Road Network**

The state-owned highway system in Oklahoma is comprised of the State numbered route highways, the US numbered route highways and the Interstate Highway System. The state system of highways encompasses 12,257 centerline miles as measured in one direction along the dividing stripe of two lane facilities and in one direction along the general median of multilane facilities. Transportation on our highways is also facilitated by over 6,800 bridge structures that span major rivers and lakes, named and unnamed perennial streams and creeks, other roads and highways and railroads.

Oklahoma's rural nature and historically agricultural and energy based economy has witnessed the conversion of many farm-to-market roads and bridges into highways. While these roads were ideal for transporting livestock and crops to market 70 years ago, they are less than adequate when supporting today's heavier trucks, increased traffic demands and higher operating speeds. Almost 4,600 miles of Oklahoma highways are two-lane facilities without paved shoulders Appendix 2.14 illustrates the location of two lane highways with no shoulders. Appendix 2.15 illustrates the Steep Hill/Sharp Curves areas of concern (statewide).

Preserving the transportation system has emerged as a national, state and local transportation priority. Aging infrastructure continues to deteriorate, reducing the quality of the system and increasing maintenance costs. All roads deteriorate over time due to environmental conditions and the volume and type of traffic using the roadway. Without proper maintenance, roadways wear out prematurely. ODOT's annual evaluation of pavement conditions and safety features such as passing opportunities, adequate sight distances, existence of paved shoulders, recovery areas for errant vehicles, and the severity of hills and curves in 2016 reveals about 30% or approximately 3,687 of the State's 12,257 miles of highway rate as poor which includes 3,211 miles of two-lane highway.

#### Traffic Count

ODOT collects traffic count data on a triennial basis primarily on the highway system and in rural areas. Other governmental entities may also be a source of additional traffic counts. Appendix 2.16 illustrates the 2015 Traffic Count Data collected by ODOT.

#### Functional Classification and Road Systems

Functional classification is the grouping of roads, streets and highways into integrated systems ranked by their importance to the general welfare, motorist and land use structure. It is used to define the role that any road should play in providing mobility for through movements and access adjoining land. This grouping acknowledges that roads have different levels of importance and provides a basis for comparing roads fairly.

Historically, one of the most important uses of functional classification of streets has been to identify streets and roads that are eligible for federal funds. The original federal aid primary, federal aid secondary, federal aid urban and national interstate systems all relied on functional classification to select eligible routes. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) eliminated the primary, secondary and urban

federal aid systems and created the National Highway System (NHS). ISTEA continued the requirement that a street, road or highway had to be classified higher than a "local" in urban areas and higher than a "local" and "minor collector" in rural areas before federal funds could be spent on it. The selection of routes eligible for NHS funding was also based on functional criteria. While eligibility for federal funding continues to be an important use for functional classification, it has also become an effective management tool in other areas of transportation planning.

Streets are grouped into functional classes according to the character of service they are intended to provide. Oklahoma's Functional Classification system undergoes a comprehensive review after each decennial U.S. Census. The functional classification of streets includes the following functional classes: Interstate, Freeway, Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector and Rural Minor Collector. Appendix 2.17 provides additional information on this topic. Appendix 2.18 illustrates Stephens County Functional Classification system.

## **Bridges**

Federal law requires that all bridges be inspected biennially; those that have specific

structural problems may require more frequent inspections. Inspections include evaluation and rating of numerous elements of the substructure, superstructure, and deck, with special attention paid to fracture-critical members. Underwater inspections occur no less than every 5 years to check for scour around bridge piers. Bridges are composed of three basic parts: deck, superstructure and substructure. If any of these components receives a condition index value of 4 or less in the National Bridge Index, it is considered structurally deficient.



Bridges are rated on a numerical scale of "1" to "7" that translates into a range of Poor, Fair, Good, and Excellent. Bridges are also described as "Structurally Deficient" and "Functionally Obsolete" as illustrated in Appendix 2.19. The former may have any of many structural problems noted in the inspection; while some may be closed or load-posted, many remain safe for traffic. The latter are bridges that do not meet current design standards. They may have narrow lanes, or inadequate clearances, but they may also be structurally sound. These structures enable vehicles, bicycles, pedestrian and wildlife to cross an obstacle. Bridges are structures that span more than 20 feet between supports and deteriorate over time due to weather and normal wear-and-tear with the passage of vehicles. To ensure safety and minimize disruption to the transportation network bridges undergo regular inspections by qualified engineers. Inspections help locate and identify potential problems early and trigger protection mechanisms when a problem is found.

Stephens County bridge inventory includes ninety-three (93) On System and five hundred sixty-six (566) Off System Bridges that are critical for regional mobility. The bridges in the County vary greatly in their age with the oldest constructed in 1901 and

most recent construction occurred in 2016. Between 2010 – 2016 fifty-one (51) bridges have been replaced or constructed. County bridges (off system) with a sufficiency rating of 60 to 79 total seventy-four (74) and bridges with a sufficiency rating of 59 or less total three hundred seventeen (317). Appendices 2.20 and Appendices 2.21 includes the On and Off-System bridges for Stephens County.

#### Traffic Control

Traffic signals are a key element of traffic control. Their location and timing affects the mobility of vehicles and pedestrians. National studies demonstrate that poorly timed traffic signals are responsible for a significant proportion of urban traffic congestion. Signal timing that does not allow sufficient time for pedestrians to cross a street can contribute to safety problems and act as a barrier to walking. The Manual on Uniform Traffic Control Devices (MUTCD) establishes minimum warrants that are to be met for installation of a signal, and for designation of exclusive turn lanes and movements. Signal ownership is an important element, as each jurisdiction may have its own protocols for maintaining and retiming signals. There is currently no inventory of traffic control devices in Stephens County which if developed can assist in prioritization of maintenance and scheduling upgrade.

## **Freight System**

The Fixing America's Surface Transportation Act (FAST Act) repealed both the Primary Freight Network and National Freight Network and directed the FHWA Administrator to establish a National Highway Freight Network (NHFN), additional information on the

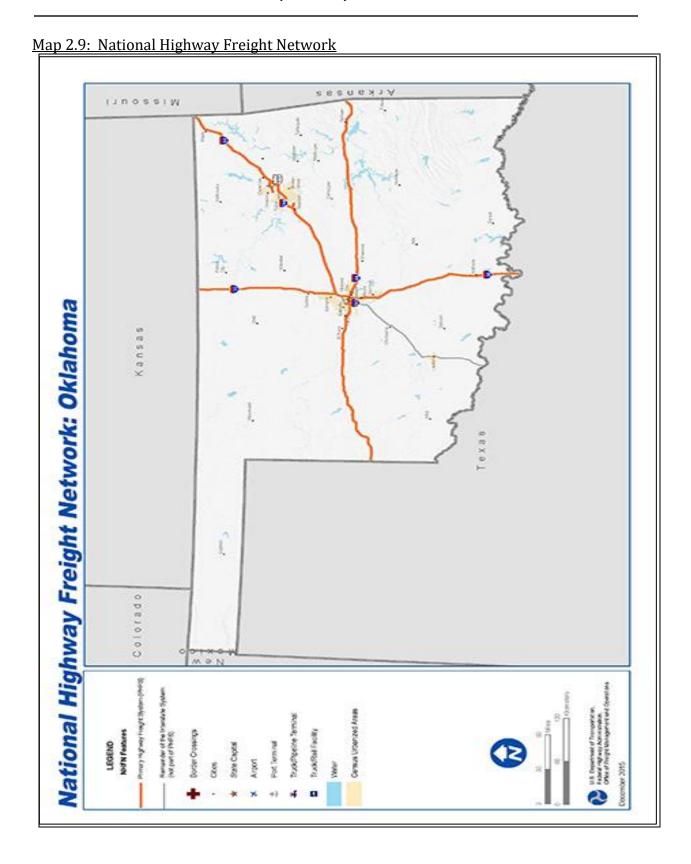
NHFN can be found in Appendix 2.22. The FAST Act includes the Interstate System—including Interstate facilities not located on the Primary Highway Freight System (PHFS) in the NHFN. All Interstate System roadways may not yet be reflected on the national and state NHFN as shown on Map 2.9. The SORTPO Policy Board identified corridors listed in Table 2.4 and illustrated in Map 2.10 as significant statewide and regional highway freight corridors. Figure 2.5 illustrates the 2011 average daily long-haul

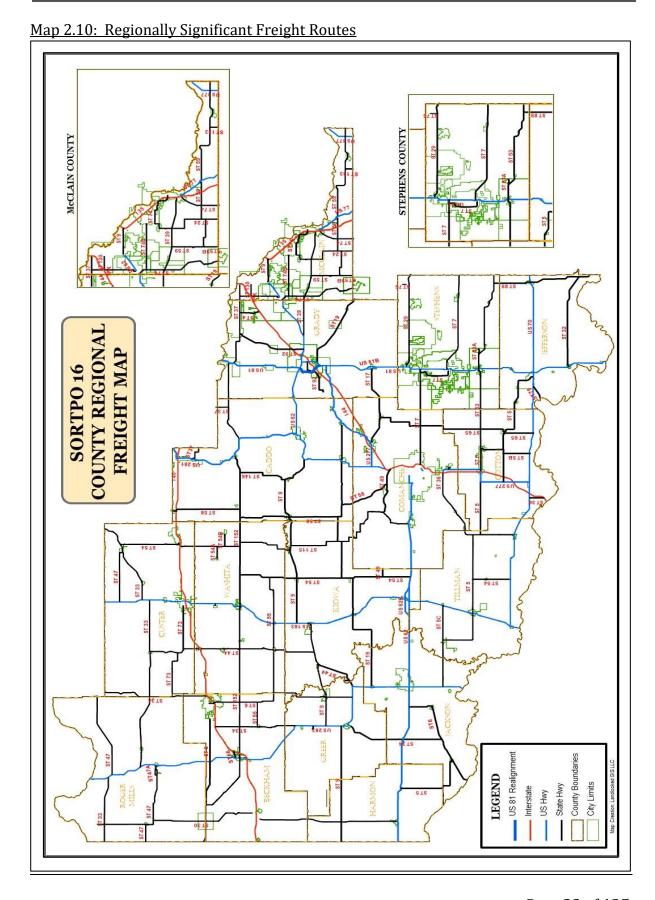
truck volume and map 2.11 illustrates the Oklahoma 2014 High Volume Truck Corridors.

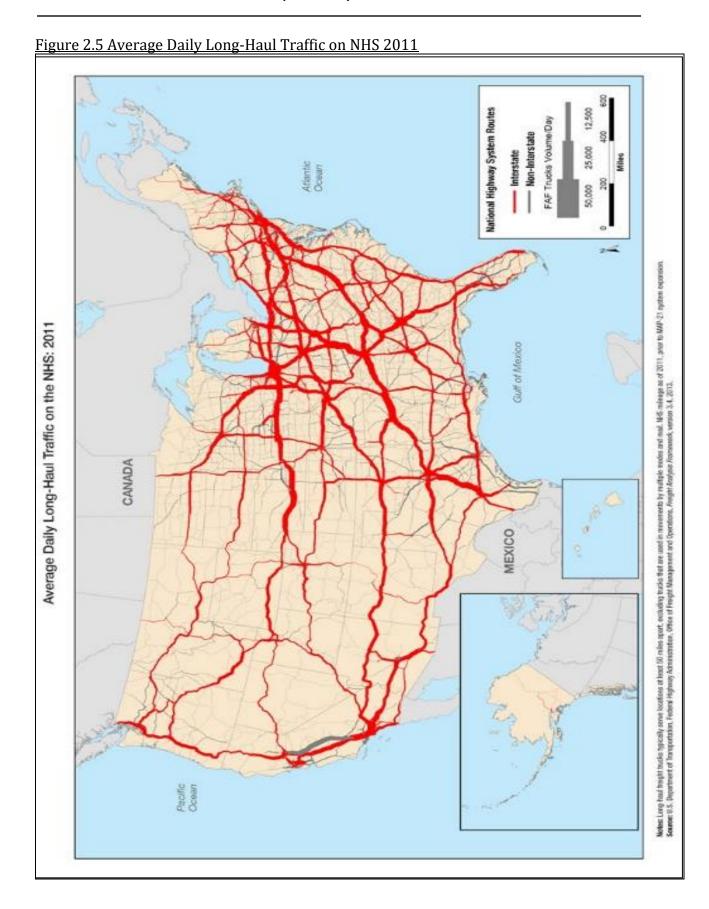
Table 2.4: Stephens County Significant Freight Corridors

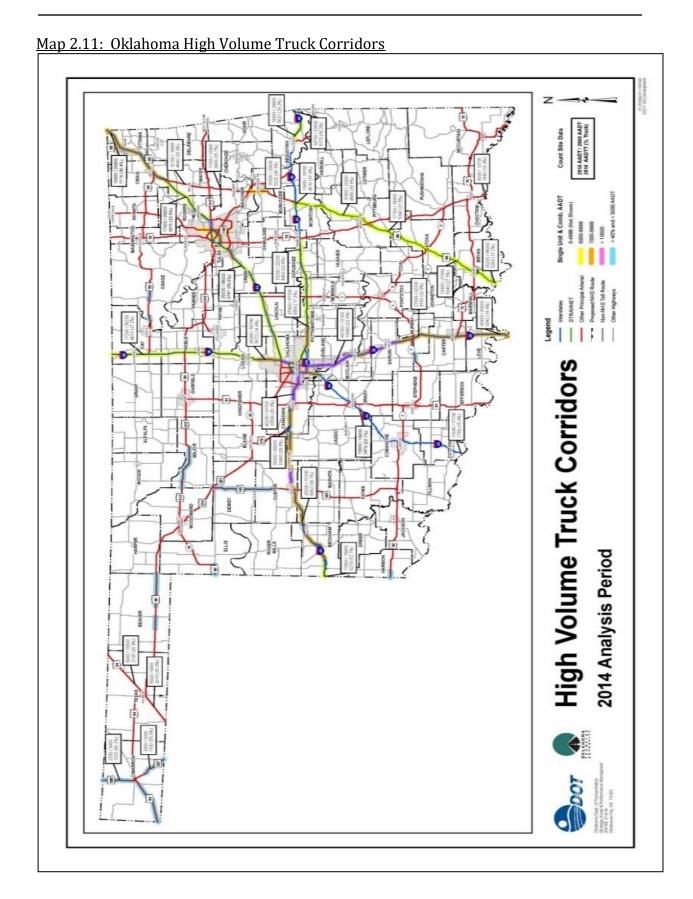
CITY/TOWN	LOCATION/DESCRIPTION
Stephens County	SH 7 from SH 36 west to I-44
Stephens County	US 81 from the Grady County line
(Duncan & Marlow)	south to the Jefferson County line
Stephens County	SH 29 east of US 81 to I-35
(Marlow)	

Source: SORTPO



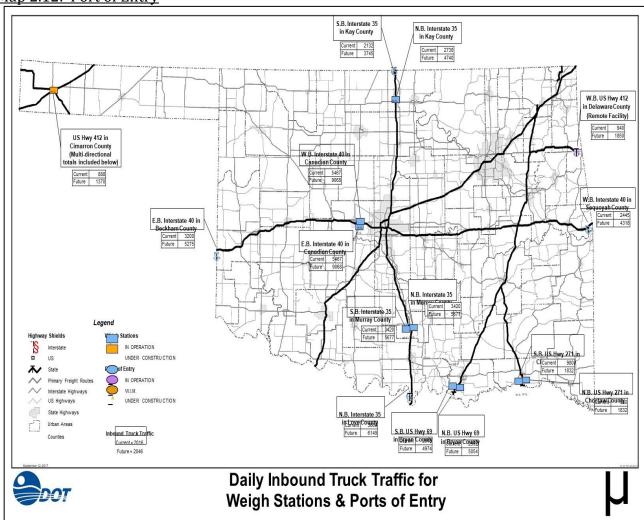






To assist with the inspection and enforcement of truck permits Ports of Entry (POE) facilities were constructed by ODOT. This system of POE monitors freight ingress at the state line and allows better enforcement of vehicle and freight laws. The POE (Map 2.126) are state-of-the-art facilities established as the mechanism to create a more controlled freight transportation environment on the highway system.





# **Railroads**

ODOT Rail Programs Division oversees and monitors five different railroad companies

operating through leases on approximately 212 miles of State owned track and serves as a liaison between ODOT and rail companies for ODOT projects which involve railroads or railroad property. In August 2014, ODOT and the Stillwater Central Railroad completed a sale of the Sooner Sub rail line between Midwest City and Sapulpa.



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After this sale ODOT began a \$100 million initiative to improve safety at railroad crossings statewide. The state-owned tracks are leased by privately operated railroads. Statewide there are three (3) Class I railroads and nineteen (19) Class III railroads. Class I railroad lines include Burlington Northern Santa Fe Railway (BNSF), Union Pacific Railroad (UP), and Kansas City Southern Railway Co. (KCS).

Stephens County is home to UP a Class I railroad line. This line is parallel to US 81 connecting Texas to Kansas. Construction of this line by the Chicago, Rock Island and Pacific Railway generally followed the Chisholm Trail. UP trains travel northbound during the day and southbound in the evening. The only active spur in Stephens County is operated by Duncan Iron and Metal, shipping on Sundays according to volume.

#### **Bicycle & Pedestrian System**

Bicycle and pedestrian facilities have been primarily a local issue, usually within communities. Most communities have at least a partial system of sidewalks to aid pedestrians, particularly near schools. Pedestrian travel requires a network of sidewalks without gaps and with accommodations for people with disabilities as defined by the Americans with Disabilities Act (ADA). There are instances, particularly in rural areas, where a wide shoulder is an acceptable substitute for a sidewalk. Safe pedestrian and bicycle travel requires protected crossings at busy intersections, marked crosswalks and pedestrian signals where warranted.

One opportunity to develop and implement bicycle and pedestrian facilities is the Transportation Alternative Program (TAP) and Safe Routes to School (SRTS), administered by ODOT. In FFY 2016, seven TAP projects were awarded in the SORTPO region to the following communities: Apache, Bessie, Chickasha, Duncan, Elk City, Hobart, and Lawton. Future TAP and SRTS projects in Stephens County include:

- continuation of the Duncan Heritage Trails System,
- Duncan Main Street,
- Central High pedestrian project,
- Comanche Main Street and SRTS project on the west side of the schools.

#### **Public Transit**

Service provided within the SORTPO region is limited to demand response service. This service is provided based on a pre-arrangement or an agreement between a passenger

(or group of passengers or an agency representing passengers) and a transportation provider for those needing "curb-to-curb" transportation. The pre-arrangement may be scheduled well in advance or, if available, on short notice and may be for a single trip or for repetitive trips over an extended period (called "subscription service"). Demand response services are provided by Red River Transportation. Red River Public Transportation Service began operating



fixed route services in 1984 and serves selected cities within the counties of Roger Mills, Stephens, Jefferson, Custer, Washita, Kiowa, Tillman, and Cotton. All services are open to

the public. Additional services provided include contracted services to schools, businesses, health providers, churches and private organizations. Destinations include: medical, shopping, school, employment, TANIF, head start, airport, and social venues. Information obtained in 2015 from Red River Transportation revealed in the following inventory and operations information: 2 fourteen passenger vans and 2 mini vans, which meet ADA requirements were in operation. These vehicles operate five days a week, eight hours daily. Ridership total for 2011-2015 was 30,000. The vehicles models are 2011 and older and have 200,000 miles or more. Red River Transportation ridership is comprised of 30% elderly and 30% disabled. Vehicle replacement was expected within in two years. In addition to services provided by Red River, the Stephens County Commissioners operate an 8 passenger 2011 van four day a week. The program provides county residents transportation to medical appointments in Lawton and Oklahoma City. Annual passenger ridership is 400.

## **Airports**

The Oklahoma Airport System Plan classifies airports by their functional classification: Regional Business Airport (RBA), District Airport (DA) and Community Airport (CA). These classifications were developed to characterize each airport on how they relate to each other. The concept of classification of airports is like the concept of classifying the roadway system.

A RBA serves multiple communities. Normally, it will serve:

- a community of at least 5,000 persons, generally larger,
- a county population of 10,000 or more persons,
- serve major employers (businesses with 50 or more employees),
- located near the center of a local sustaining economy, and
- closely match the local sustaining economies identified by the Oklahoma Department of Commerce.

Features of a DA include providing access to a part of the state that is not well served by a RBA. Typically, these airports will:

- have a supporter with a defined interest in promoting airport and with a demonstrated financial capability,
- about five or more based aircraft at these airports or an equivalent number of annual itinerant operations, and
- airports are attended, aviation gasoline is available and there is a public terminal building.

The CA airports are entry-level airports. These airports regularly serve

- small communities, where the city population is less than 5,000, and for many, the population is less than 2,000,
- normally these airports are not attended, have no services available, and
- the sponsor has limited financial capability to fund capital improvement projects.

The SORTPO area consists of twenty-two (22) general aviation airports identified in

0000000 A

Table 2.5. Stephens County is home to one public airport and is illustrated on Map 2.1.

Table 2.5: SORPTO Public Airports

CITY	COUNTY	AIRPORT NAME	TYPE OF AIRPORT	OWNER
Sayre	Beckham	Sayre Municipal	CA	Municipal
Elk City	Beckham	Elk City Regional	RBA	Municipal
Carnegie	Caddo	Carnegie Municipal	CA	Municipal
Anadarko	Caddo	Anadarko Municipal	DA	Municipal
Hinton	Caddo	Hinton Municipal	DA	Municipal
Lawton	Comanche	Lawton-Ft. Sill Regional	RBA	Municipal
Walters	Cotton	Walters Municipal	CA	Municipal
Clinton	Custer	Clinton Regional	RBA	Municipal
Weatherford	Custer	Thomas P Stafford	RBA	Municipal
Chickasha	Grady	Chickasha Municipal	RBA	Municipal
Mangum	Greer	Scott Field	DA	Municipal
Hollis	Harmon	Hollis Municipal	DA	Municipal
Altus	Jackson	Altus/Quartz Mt. Reg.	RBA	Municipal
Hobart	Kiowa	Hobert Regional	RBA	Municipal
Purcell	McClain	Purcell	DA	Municipal
Cheyenne	Roger Mills	Migon Laird Municipal	CA	Municipal
Duncan	Stephens	Halliburton Field	RBA	Municipal
Tipton	Tillman	Tipton Municipal	CA	Municipal
Grandfield	Tillman	Grandfield Municipal	DA	Municipal
Frederick	Tillman	Frederick Regional	RBA	Municipal
Cordell	Washita	Cordell Municipal	CA	Municipal
Burns Flat	Washita	Clinton/Sherman	RBA	Municipal

Source: Oklahoma Aeronautics Commission

## **Areas of Concern**

Areas of concern were identified through surveys, holding public meetings and soliciting comments from stakeholders. Through the collective knowledge and experience of the members of the Transportation Technical Committee and Policy Board and the information obtained via public comment the data areas of concern were identified. These locations are shown in Table 2.6. The scope of the LRTP does not include solutions to the areas of concern.

Table 2.6: Stephens County Transportation Areas of Concern

CITY/TOWN	ns County Transportation LOCATION	DESCRIPTION
CITI/IOWN	LOCATION	
Duncan	Duncan Bypass	Need improvements at intersections of east/west streets and Bypass i.e., turning lanes, overpass, lighting, striping.
County	SH 29	Located east of Marlow to county line.
Duncan	Elk Ave./US 81 intersection	Congestion. Accidents
Duncan	US/81/Walmart Braum's Intersection	Congestion, turning movements
County		Pot holes
County	SH 7/7 Mile Rd.	Need turning lane for traffic traveling to Central High Community
Marlow	SH 7/US 81 intersection	
County	SH 7/Bypass	Street light needed for intersection
County	Camelback Rd./ 76 <sup>th</sup> St.	
County	58 <sup>th</sup> St. between Bois D'Arc and Beech	Maintenance
Duncan	US 81 (Main St. to Plato)	
Duncan		Need walkways
Duncan	10 <sup>th</sup> St./Elk Ave.	
Duncan	10 <sup>th</sup> St./Elder Ave.	
County	SH 7 between Duncan and Davis	Need 4 lanes.
County		Need transit
Duncan	US 81 (Elk Ave. to Main St.)	Flooding
County	Old Highway 7	Narrow bridges
Comanche	SH 53/US 81/SH76 intersection	
Duncan	Cherokee	Semis using non-designated freight route
Duncan	US 81/Timber Creek intersection	
Duncan	Main St. between 8 <sup>th</sup> and 9 <sup>th</sup>	
County	Duncan and Bypass	Need more striping
Velma	Speed G's	
Velma	Pinto Rd.	
		•

Source: Stakeholder Meetings, Surveys, SORTPO

# **Chapter 3: Future Conditions and Improvements**

The objective of the Future Conditions and chapter is to portray a "snapshot" of future population and employment growth and transportation improvements. It is assumed that only those transportation projects included in the current ODOT eight (8) year construction plan, County Improvements for Road & Bridges Program (CIRB) and projects funded by local governments will be constructed by the year 2040.

#### **Future Conditions**

Stephens County population and employment opportunities are highly dependent on the cyclical oil and gas industry. Recent changes in this industry at the international, national and state level have reduced drilling activity in SORTPO's region, resulting in a decline in the region's population and employment. It is projected that the oil and gas industry



volatility will stabilize and population and employment will react accordingly. With the stabilization of the oi and gas industry employment opportunities Stephen's County will regain its losses. The employment sector is diversifying and increases in industries such as healthcare, education, manufacturing and retail will continue. Though Stephens County is projected to grow in population and employment, information in the LRTP must also include the multiple year revenue failure in the State of Oklahoma's budget and this loss of revenue's impact on rural Oklahoma will continue to impact future growth.

With the changing economy at the regional and state level the population projection developed for Stephens County was based on historic population growth from 1980 – 2011-15 (ACS), local development knowledge, location of employment and activity centers and proposed development. Growth was calcuated at approximately 0.5% annual growth between years 2015 and 2035 and a 0.5% growth between years 2036 through 2040. Population by 2040 is projected at 49,753 and civilian employment is projected at 22,614. The 2040 population projection of 49,753 and employment projection totaling 22,614 through the TAZs with primary distribution in the cities of Duncan, Comanche, Marlow and Velma and TAZ's abutting these cities. Appendix 3.1 provides the Stephens County 2040 projected population and employment by TAZ.

Within Stephens County, there may be areas that experience congestion such as areas near major activity generators. Studies to identify specific causes and solutions for these areas will need to be considered on a case by case basis. As population changes the impact

on the traffic volume and roadway capacity will need to be re-examined. Future truck freight growth is projected to continue. Development of southwest Oklahoma regional freight plan will provide the region an opportunity to look long term at the needs of the freight industry, interconnecting between regions and identification of future freight projects that will support the growth. Figure 3.1 illustrates the Projected Average Daily Long-Haul Traffic on NHS.

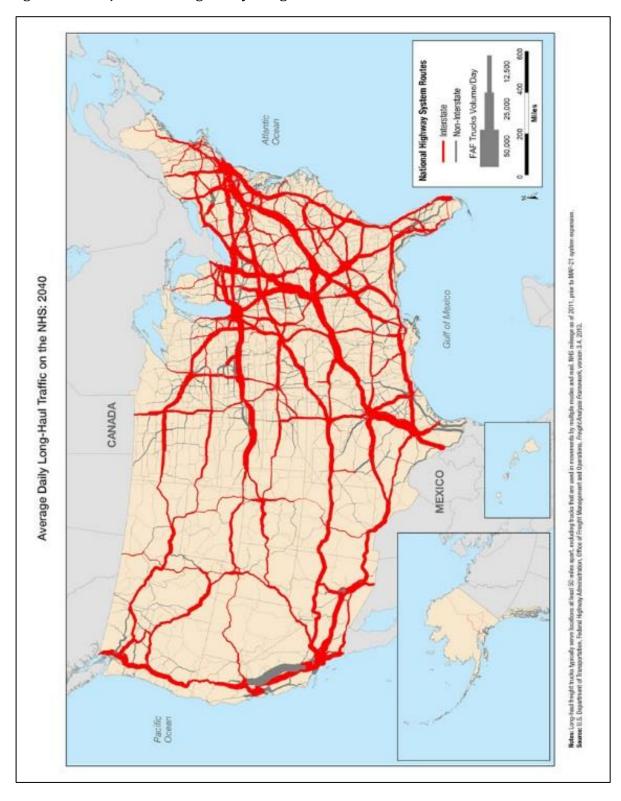


Figure 3.1: Projected Average Daily Long-Haul Traffic on NHS 2040

### **2040 Transportation Funding and Improvements**

Not all service needs for the transportation system are for constructed improvements. In many instances, additional data will need to be collected and studies developed to provide a complete list of needs. In the interim projected construction improvement needs, will rely on information, data, programs implemented by state, tribal governments, rail line companies, county and city governments.

#### Federal

In general, transportation revenues continue to follow an unsustainable trajectory as multiple factors force the funding available for transportation to continue a downward trend. For example, both the Oklahoma and federal gas tax rates are fixed on a per-gallon basis, and therefore gas tax revenues are not responsive to inflation. As the cost of transportation infrastructure projects increases, the amount of revenue generated from

the gas tax remains static. It is not possible to maintain past levels of transportation investments as per capita collections continue to decline. Additionally, as cars become more fuel efficient, drivers pay less in gas taxes. At the same time, the wear and tear on roadways caused by these vehicles remains the same. The federal funding levels related to highways are typically established through authorizing legislation commonly referred to as the Federal Highway Bill. This legislation normally authorizes projected funding levels for a period of six years. Consistent, long-term funding anticipations are critical to



understand the expected annual federal funding availability and prepare projects accordingly. Each year, the legislation is funded through the Administration's budgeting and the congressional appropriations processes. The primary source for the dedicated federal transportation funding appropriation is the gasoline and diesel tax deposits directed to the Highway Trust Fund.

The department of transportation in each state is designated as the cognizant or recipient agency to interact with the representative federal agency, the Federal Highway Administration. Therefore, federal funding for roads and bridges is administered by ODOT regardless of facility ownership. All traditional, congressionally identified or discretionarily funded city street and county road projects that utilize federal highway funding are administered by and through ODOT.

Taxes on gasoline and other motor fuels are collected and distributed from the Federal Highway Trust Fund (HTF) and are distributed to the states by the FHWA and the FTA to each state through a system of formula grants and discretionary allocations. Motor fuels taxes, consisting of the 18.4-cent per gallon tax on gasoline and 24-cent per gallon tax on diesel fuels, are the trust fund's main dedicated revenue source. Taxes on the sale of heavy vehicles, truck tires and the use of certain kinds of vehicles bring in smaller amounts of revenue for the trust fund. Surface Transportation Program (STP) is federal funds utilized on road projects. These STP funds may provide up to eighty percent (80%) of the construction costs of these projects. Counties fund the remaining twenty percent (20%) match for construction costs, plus the costs for engineering, right of way and utility

relocation through local sources or state fund. taxes.

#### **State**

The ODOT 8 Year Construction Work Program 2017-2024 assembles projects according to anticipated state and federal fund categories. Regarding federally funded projects, the current plan is fiscally balanced in that the total project costs do not exceed the anticipated federal funds. ODOT policy prohibits start of future projects until all funding is in place and federal regulations dictate projects cannot be programmed in the Statewide Transportation Improvement Program (STIP) unless there is a programmatic and financial game plan for completing the project within six (6) years.

The total expenditures identified in Table 3.1 are within the total federal, state and local revenues estimated for the 2040 LRTP and are adequate to fund the projects listed. Funding of local transportation projects and programs is heavily influenced by State of Oklahoma's annual budget and federal funding. Transportation funding sources based on motor vehicle fuel taxes tend to fluctuate with changes in fuel prices and fuel consumption. While most taxes are not tied to fuel prices, when gas prices go up, consumption tends to go down and thus tax revenues decline. Oklahoma's state budget continues to experience historic downfall revenues and these downfalls have a negative impact on the transportation system. With this plan development, it is anticipated that there will continue to be a downfall in available revenue for transportation programs and projects. Therefore, the coordination with local, regional and statewide agencies in the development of transportation programs and projects is significant to accomplish the projects.

**Table 3.1: State Funding Categories** 

	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Budget
State Transportation Fund	\$206,405,702	\$208,707,119	\$197,228,227	\$184,901,463
Motor Fuel Tax – HP Bridges	\$6,047,108	\$6,130,546	\$6,238,149	\$6,200,000
Income Tax	\$297,400,000	\$357,100,000	\$416,800,000	\$476,500,000
Total allocation	\$509,852,810	\$571,937,665	\$620,266,376	\$667,601,463
OTA Transfers	\$41,340,937	\$41,712,534	\$44,049,331	\$42,000,000
Total State Revenue	\$551,193,747	\$613,650,199	\$664,315,707	\$709,601,463
CIP Debt Service	\$11,526,973	\$11,358,296	\$0	\$0
ROADS Debt Service	\$32,367,490	\$35,971,788	\$42,599,529	\$36,434,743

	FY13 Actual	FY14 Actual	FY15 Actual	FY16 Budget
Highways and Bridges	\$495,399,284	\$554,420,115	\$612,316,178	\$662,766,720
Lake & Industrial Access	\$5,000,000	\$5,000,000	\$2,500,000	\$3,500,000
Passenger Rail	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Public Transit	\$3,000,000	\$3,000,000	\$3,000,000	\$3,000,000
Intermodal	\$1,900,000	\$1,900,000	\$1,900,000	\$1,900,000
Total Allocation	\$551,193,747	\$613,650,199	\$664,315,707	\$709,601,463

Source: ODOT

#### **County**

The main funding program for county roads and bridges is the county highway fund, which consists of revenues from the state taxes on gasoline and diesel fuels as well as motor vehicle registration fees and a portion of the of the state gross production tax on oil and gas in the case of counties that have oil and gas production. A county's apportionment is based on several formulas that use proportional shares of each factor as it relates to the total statewide county totals. Counties that have oil and natural gas production receive a portion of the seven percent (7%) state tax on natural gas and oil. Counties have authority to impose a countywide sales tax for roads and bridges with revenues earmarked for roads and bridges.

In the summer of 2006 a law created the County Improvements for Roads and Bridges (CIRB) program. The funds apportioned to the program are in equal amounts to the eight Transportation Commission Districts. The sole purpose of the funds is for the construction or reconstruction of county roads or bridges on the county highway system that are the highest priority. Funds may accumulate annual funding for a period of up to five years for a specific project. Information obtained from a report published by the National Association of Counties, funds collected by OTC for transportation projects are distributed directly to the counties. Revenues specifically for the CIRB category are collected from state gasoline and diesel tax, special fuel tax and state gross production tax on oil. The county uses a small percentage of tax revenues for maintenance and minor improvements, relying on outside funding sources for major improvements.

The County Commissioners established Circuit Engineering Districts (CEDs) to provide common engineering and project support services. All potential transportation projects are initiated by the County Commissioners and are coordinated with the appropriate CED who directs the development of the recommended list of projects to be considered by ODOT for inclusion in the CIRB Construction Work Plan. ODOT and the Transportation Commission have the responsibility for the expenditure of the CIRB funding. When the CIRB Construction Work Plan is approved, ODOT coordinates and cooperates with the

Counties and the CEDs in management of the project.

#### Local

The main source of funding for community transportation projects is found in the general operating budgets. Generally, these funds are derived by city sales tax and fees. Funding for rural transportation projects may also be available through federal sources such as Community Development Block Grants (CDBG) through Oklahoma Dept. of Commerce, Economic Development Administration (EDA), and US Department of Agriculture Rural Development (USDA RD) programs. Oklahoma has limited funding available for projects through Rural Economic Action Plan (REAP) administered by Councils of Government (COG). Planned improvements identified in Table 3.2 are local (city/county) projects and were identified through a public survey, public meetings and local expertise.

<u>Table 3.2: Stephens County Future Transportation Projects</u>

CITY/TOWN	LOCATION	DESCRIPTION
Duncan	Heritage Trails System	Heritage Trails System Construction of bicycle and pedestrian facilities beginning at Simmons Center on Chisholm Trail Parkway north to Elk Ave., then south to Whisenant Ave., then south
Duncan	Main Street	to Whisenant Park.  Enhancement project is in the planning stage and will be a 2018 TAP application.
Duncan	Streets	In 2014 Duncan Citizens approved continuation of a ½ cent sales tax. This tax is split between Duncan infrastructure (water/sewer/streets) and economic development. In 2017, the City of Duncan Public Works Department received results of an evaluation of the streets by consultants. The results will be development and adoption of a Capital Improvement Plan to improve the streets.
Duncan	Safe Routes to School	The City will apply for a SRTS grant to improve sidewalks and bicycle trails to schools.
Comanche	West of the signal light at the schools. town.	The City will apply for a SRTS grant to improve the sidewalks and bicycle trails. west of the signal light at the schools.
Comanche	Main Street Enhancement	Main Street Enhancement Project.
Marlow	City Streets	Citizens of Marlow approved the extension of a Capital Improvement Sales Tax of 1%. The City estimates that \$200,000 per year will be programmed for street overlay for the next 10 years.
Central High	Pedestrian/Trails	Expand trail/pedestrian system to link schools.
Stephens	District 1	391 miles (gravel/chip and seal/overlay).

CITY/TOWN	LOCATION	DESCRIPTION
County		
Stephens County	District 2	353 miles (68 miles of gravel, 250 miles chip and seal and 35 miles of overlay). One 24 ft. bridge constructed in 2017 and 80 ft. bridge to be constructed in 2018.
Stephens County	District 3	412 miles (60 miles of gravel, 352 miles of chip/seal/overlay). One 19ft bridge to be constructed in 2018.

Source: SORTPO, City of Duncan

# **Chapter 4: Public Participation**

This chapter presents and describes the public participation tools the RTPOs utilize as part of the planning process. Public participation is a federal requirement outlined in MAP21 and The FAST Act. SORTPO has an adopted Public Participation Plans (PPP) that was followed.

#### **Environmental Justice**

FHWA has long embraced non-discrimination policy to make sure federally funded activities (planning through implementation) are not disproportionately adversely impacting certain populations. These populations include low income persons and populations as defined by the U.S. Department of Health and Human Services (HHS) Poverty Guidelines and minority persons and populations (Black, Hispanic, Asian American, American Indian and Alaskan Natives). As such, public involvement and outreach for the LRTP must adhere to Presidential Executive Order 12898, Environmental Justice (EJ).

Stephens County's racial and ethnic composition is 84% White, 2.1% Black or African American, 5.8% Native American, 0.5% Asian and 6.8% Hispanic or Latino. In

comparison, Oklahoma's racial ethnic composition for 2011-2015 ACS was 73.1% White, 8.2% African American, 7.3% American Indian and 9.6% Hispanic or Latino. Data from 2011-2015 ACS identifies 17.3% of the population below the poverty level. Low income populations were also identified for Stephens County. Low income populations are defined by the FHWA for transportation planning purposes as families of four (4) with a household income that is below the poverty guidelines set by HHS. The HHS 2017 poverty guidelines for a family of four is \$24,600.



As part of the LRTP development and public outreach process, consultation with federally recognized tribes in the region was initiated. Several environmental laws require tribal consultation during project development. The Chickasaw Tribe and Comanche Tribe were identified and invited to participate in the planning process. In addition, a copy of the LRTP was mailed to each tribal headquarters during the public review process.

### **Coordination with Other Plans**

The process to identify goals and objectives for the county started with a review and comparison of goals and objectives from other related planning documents and policies to ensure general consistency. This review included:

- FAST Act Federal Planning Factors,
- MAP-21 Federal Planning Factors,
- 2012 Transit Gap Overview and Analysis,

- Oklahoma Mobility Plan,
- Duncan Comprehensive Plan
- Oklahoma Aeronautics Commission, and
- ODOT 2015-2040 Long Range Transportation Plan.

Conversation and consultation were initiated and will be ongoing with the local and State Agencies (including, but not limited to: State Historic Preservation Office, Oklahoma Department of Transportation, Oklahoma Department of Environmental Quality, Oklahoma Water Resources Board, Oklahoma Department of Wildlife Conservation, Aeronautics Commission, and Bureau of Indian Affairs. All the above agencies will be given an opportunity for input during the Public Review and Comment period.

Public involvement is an integral part of the transportation process. SORTPO is proactive in its efforts to effectively communicate with the public and has adopted a PPP to ensure that the transportation planning process and procedures complies with federal requirement for public involvement and participation. These procedures provide opportunities for the public to take an active role in the decision-making process.



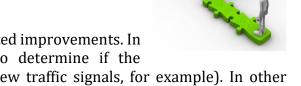
The SORTPO hosted fifteen (15) public meetings and/or provided notice of availability for public outreach to involve interested parties in the early stages of the plan development. Notices of public hearings and/or notices of availability for public outreach for the RTPO were published in local newspapers and SORTPO website. Surveys were distributed throughout the County and were made available at <a href="https://www.sortpo.org">www.sortpo.org</a>. Appendix 4.1 provides a summary of the survey results. Appendix 4.2 contains information identifying the public outreach processes utilized in development of the 2040 Stephens County LRTP.

# **Chapter 5: Transportation Recommendations**

This chapter identifies the recommendations and summary of improvements that were developed because of the previous review of demographics, growth, activity generators, transportation system and other such issues. It is assumed that only Stephens County projects included in the FFY 2017-2024 ODOT 8 Year Construction Work Program, FFY 2017-2020 Asset Preservation Program, FFY 2017-2021 CIRB and those identified by cities and towns will be constructed by the year 2040.

The projects included in the LRTP may have potential funding from a single source or multiple sources. Each project has its own unique components relative to only that project and while there are many funding programs within various state and federal agencies, each project must be evaluated on its own merits to determine which programs will apply. It should be noted that while many potential funding sources are identified for each project, these represent the primary sources and additional sources not listed may also be available. When implementing this plan, SORTPO will continue to review

potential funding sources as they become available or as projects become eligible for other sources. SORTPO will expand on this effort by identifying additional projects that are needed in the county and helping local governments with the identification of funding sources for those projects.



Not all the recommendations are for constructed improvements. In some cases, studies must be conducted to determine if the improvement is warranted (installation of new traffic signals, for example). In other cases, studies should be undertaken to develop a comprehensive set of solutions.

# **Transportation Projects**

The ODOT 8 Year Construction Work Program 2017-2024 assembles projects according to anticipated state and federal fund categories. Regarding federally funded projects, the current plan is fiscally balanced in that the total project costs do not exceed the anticipated federal funds. ODOT policy prohibits start of future projects until all funding is in place and federal regulations dictate projects cannot be programmed in the Statewide Transportation Improvement Program (STIP) unless there is a programmatic and financial game plan for completing the project within six (6) years.

Table 5.1 identifies projects through the year 2040 and includes those identified in the ODOT 8 Year Construction Work Program for years 2017-2020, CIRB FY 2017-2021, FY 2017-2020 Asset Preservation and other projects such as development of studies, plans, and collection of data identified in Chapter 1 goals and strategies. The development of studies, plans and collection of data can be included in SORTPO's Planning Work Program (PWP).

<u>Table 5.1: Stephens County Transportation Projects</u>

		7 Transportation Projects  DESCRIPTION	EUNDING
GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Stephens County	2017- 2021	Develop a clearinghouse for regional data sets, such as pavement management systems and geographic information systems.	SPR/Local
Stephens County	2017- 2021	Conduct a freight assessment for the county.	SPR/Local
Stephens County	2017- 2021	Develop a system to collect and monitor changes in population, employment, and major employers by Traffic Analysis Zone (TAZ).	SPR/Local
Stephens County	2017- 2021	Develop data collection standards.	SPR/Local
Stephens County	2017- 2021	Establish procedures that enhance the consultation and coordination of transportation planning with local, regional, state and tribal government representatives.	SPR/Local
Stephens County	2017- 2021	Conduct speed study at intersection locations with high accident severity index and corridors with major attractors.	SPR/Local
Stephens County	2017- 2021	SH 7 EB & WB BRIDGE REHABILITATION OVER THE U.P. RAILROAD & 7TH STREET IN Duncan 0.7 MILES E. OF US 81	\$2,000,000
Stephens County	2017- 2021	SH-53: FROM 6.08 MI EAST OF COTTON C/L, EAST APPROX 4.0 MIS. TO 5TH STR. UT FOR 21720(04)	\$1,000,000
Stephens County	2017- 2021	SH-53: FROM 6.08 MI EAST OF COTTON C/L, EAST APPROX 4.0 MIS. TO 5TH STR. UT FOR 21720(04)	\$1,403,700
Stephens County	2017- 2021	DIVISION 7: BRIDGE WATER PROOF SEAL (SITES TO BE DETERMINED)	\$80,000
Stephens County	2017- 2021	DIVISION 7: BRIDGE PAINTING & JOINT REPAIR (SITES TO BE DETERMINED)	\$920,000
Stephens County	2017- 2021	SH-29 FROM 2.60 MIS. EAST OF US-81 EAST 4.4 MIS. (PHASE I)	\$11,564,367
Stephens County	2017- 2021	DIVISION WIDE BRIDGE WATERPROOFING SEAL FOR DIVISION	\$80,001
Stephens County	2017- 2021	DIVISION 7: BRIDGE PAINTING & JOINT REPAIR (SITES TO BE DETERMINED)	\$920,000
Stephens County	2017- 2021	SH-53 OVER S. FORK DEER CREEK BEGIN 4.1 MIS E. OF US-81 0.4 MIS	\$1,086,967

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Stephens County	2017- 2021	US-81; FROM THE JEFFERSON C/L, EXT. NORTH 5.80 MLS	\$2,047,000
Stephens County	2017- 2021	US-81: FROM 0.15 MILES SOUTH OF SH- 53, EXT. NORTH 0.24 MILES	\$145,000
Stephens County	2017- 2021	SH-53: BEGIN 0.10 MILES WEST OF US- 81, EXT. EAST 0.25 MILES	\$84,500
Stephens County	2017- 2021	SH 53: OVER PINE CREEK & O'FLOW 8.6 & 8.7 MIS. W. OF SH89 RW FOR 30362(04)	\$268,576
Stephens County	2017- 2021	SH 53: OVER PINE CREEK & O'FLOW 8.6 & 8.7 MIS. W. OF SH89 UT FOR 30362(04)	\$402,864
Stephens County	2017- 2021	DIVISION 7: BRIDGE WATER PROOF SEAL (SITES TO BE DETERMINED)	\$80,000
Stephens County	2017- 2021	DIVISION 7: BRIDGE PAINTING (SITES TO BE DETERMINED)	\$520,000
Stephens County	2017- 2021	DIVISION 7: BRIDGE JOINT SEAL REPAIR (SITES TO BE DETERMINED)	\$400,001
Stephens County	2017- 2021	SH-29 FROM 7.0 MIS. EAST OF US-81, EXTEND EAST 4.7 MIS. (PHASE II)	\$11,687,264
Stephens County	2017- 2021	SH-29 BEGIN 11.48 MILES E. OF US-81 EXTEND E. 5.44 MILES. (RW FOR JP 29657(04))	\$1,090,000
Stephens County	2017- 2021	SH-29 BEGIN 11.48 MILES E. OF US-81 EXTEND E. 5.44 MILES. (UT FOR JP 29657(04))	\$1,635,000
Stephens County	2017- 2021	SH-29 BEGIN 16.92 MILES E. OF US-81 EXTEND E. 6.08 MIS. TO THE GARVIN C/L. RW FOR 29657(10)	\$850,001.00
Stephens County	2017- 2021	SH-29 BEGIN 16.92 MILES E. OF US-81 EXTEND E. 6.08 MIS. TO THE	\$1,450,000
Stephens County	2017- 2021	SH-53 OVER MUD CREEK & MUD CREEK O'FLOWS BEG APPROX 10.9 MILE EAST OF US-81 & EXT EAST APPROX 0.6 MILE	\$4,468,330
Stephens County	2017- 2021	DIVISION 7: BRIDGE JOINT REPAIR (SITES TO BE DETERMINED)	\$400,000
Stephens County	2017- 2021	DIVISION 7: BRIDGE WATER PROOF SEAL (SITES TO BE \$80,000.01	
Stephens County	2017- 2021	DIVISION 7: BRIDGE PAINTING (SITES TO BE DETERMINED)	\$520,000
Stephens County	2017- 2021	SH 53 OVER 3 UNNAMED CREEKS 1.2, 1.1 & 0.8 MIS. W. OF SH 89 RW FOR 31039(04)	\$257,040

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
Stephens County	2017- 2021	SH 53 OVER 3 UNNAMED CREEKS 1.2, 1.1 & 0.8 MIS. W. OF SH 89 UT FOR 31039(04)	\$385,560
Stephens County	2017- 2021	SH 53: OVER WALKER CREEK 3.3 MIS. E. OF THE COTTON C/L RW FOR 31895(04)	\$104,720
Stephens County	2017- 2021	SH 53: OVER WALKER CREEK 3.3 MIS. E. OF THE COTTON C/L UT FOR 31895(04)	\$157,080
Stephens County	2017- 2021	SH-29 BEGIN 11.48 MILES E. OF US-81 EXTEND E. 5.44 MILES INCLUDING BLACK BEAR CREEK BRIDGE REPLACEMENT	\$11,927,200
Stephens County	2017- 2021	DIVISION 7: BRIDGE WATER PROOF SEAL (SITES TO BE \$80,000.00	
Stephens County	2017- 2021	DIVISION 7: BRIDGE PAINTING & JOINT REPAIR (SITES TO BE DETERMINED)	\$920,000
Stephens County	2017- 2021	SH 53: OVER PINE CREEK & O'FLOW 8.6 & 8.7 MIS. W. OF SH89	\$3,722,065
Stephens County	2022 - 2026	Develop procedures to identify and collect traffic count data at specific locations within the county.	SPR/Local
Stephens County	2022 – 2026	Develop method to track the implementation of projects and regularly update the public on the status of projects, programs and finances.	SPR/Local
Stephens County	2022 - 2026	Identify the locations of major employment centers, including existing and proposed developments and identify types of transportation available.	SPR/Local
Stephens County	2022 - 2026	Working with area employers and stakeholders develop a database and map identifying transportation needs	SPR/Local
Stephens County	2022 - 2026	Develop database and mapping to identify the County's underrepresented	SPR/Local
Stephens County	2022 - 2026	SH-29 BEGIN 16.92 MILES E. OF US-81 EXTEND E. 6.08 MIS.	\$14,500,000
Stephens County	2022 - 2026	DIVISION 7: BRIDGE WATER PROOF SEAL (SITES TO BE DETERMINED)	\$80,000
Stephens County	2022 - 2026	DIVISION 7: BRIDGE PAINTING & JOINT REPAIR (SITES TO BE DETERMINED)	\$920,000
Stephens County	2022 - 2026	SH 53 OVER 3 UNNAMED CREEKS 1.2, 1.1 & 0.8 MIS. W. OF SH 89	\$2,570,400
Stephens	2022 –	SH 53: OVER WALKER CREEK 3.3 MIS. E. OF THE	\$1,047,200

GENERAL LOCATION	PROJECT YEAR	DESCRIPTION	FUNDING STATE / FEDERAL
County	2026	COTTON C/L	
Stephens	2022 –	DIVISION 7: BRIDGE WATER PROOF SEAL (SITES	\$80,000
County	2026	TO BE DETERMINED)	
Stephens County	2027- 2031	Develop a data file and create a map identifying location of wind farms and pipelines and relationship to communities and the transportation system.	SPR/LOCAL
Stephens	2027-	Develop a regional map that identifies tourism	SPR/LOCAL
County	2031	destinations and regionally significant facilities	
Stephens	2027-	Collect and routinely analyze safety and security	SPR/LOCAL
County	2031	data by mode and severity to identify changes and trends.	
Stephens	2032-	Collect and routinely analyze safety and security	SPR/LOCAL
County	2036	data by mode and severity to identify changes and trends.	
Stephens	2032-	Conduct study at intersection locations with high	SPR/LOCAL
County	2036	accident severity index and corridors with major attractors.	
Stephens	2037-	Collect and routinely analyze safety and security	SPR/LOCAL
County	2040	data by mode and severity to identify changes and trends.	
Stephens	2037-	Conduct study at intersection locations with high	SPR/LOCAL
County	2040	accident severity index and corridors with major attractors.	

Source: ODOT, SORTPO

# **APPENDIX**

**Acronyms** 

ACS American Community Survey

ADA Americans with Disabilities Act

ASCOG Association of South Central Oklahoma Governments

BNSF Burlington Norther Santa Fe

CA Community Airport

CED Circuit Engineering District

CIP Capital Improvement Program

CIRB County Improvement for Roads and Bridges

C/L County Line

COEDD Central Oklahoma Economic Development District

COG Council of Government

CORTPO Central Oklahoma Regional Transportation Planning Organization

DA District Airport

EDA Economic Development Administration

El Environmental Justice

FAST Act Fixing America's Transportation Act

FAT Fatality

FHWA Federal Highway Administration

FTA Federal Transit Administration

FY Fiscal Year

FFY Federal Fiscal Year

GIS Geographic Information System

HHS Health and Human Services

HTF Highway Trust Fund

HWY Highway

INJ Injury

IRI International Roughness Index

JCT Junction

KCS Kansas City Southern

LEP Limited English Proficiency

LOS Levels of Service

LRTP Long Range Transportation Plan

MAP-21 Moving Ahead for Progress in the 21st Century Act

MI Mile(s)

MPO Metropolitan Planning Organization

MUTCD Manual of Uniform Traffic Control Devices

NHFN National Highway Freight Network

NHS National Highway System

NODA Northern Oklahoma Development Authority

NORTPO Northern Oklahoma Regional Transportation Planning Organization

NRHP National Register of Historic Places

OARC Oklahoma Association of Regional Councils

ODEQ Oklahoma Department of Environmental Quality

ODOT Oklahoma Department of Transportation

OTA Oklahoma Turnpike Authority

PD Property Damage

PHFS Primary Highway Freight System

POE Port of Entry

PPP Public Participation Plan

PWP Planning Work Program

RBA Regional Business Airport

REAP Rural Economic Action Plan

RTPO Regional Transportation Planning Organization

SH State Highway

S/L State Line

SAFETEA-LU Safe, Accountable, Flexible and Efficient Transportation Equity Act: A

Legacy for Users

SORTPO Southwest Oklahoma Regional Transportation Planning Organization

SPR State Planning & Research

STIP Statewide Transportation Improvement Program

STP Surface Transportation Program

STRAHNET Strategic Highway Network

SWODA South Western Oklahoma Development Authority

TAP Transportation Alternate Program

TAZ Traffic Analysis Zone

UP Union Pacific
US United States

USDA United States Department of Agriculture

USDOT United States Department of Transportation

#### **Definitions**

**Accident Severity Index** - A measure of the severity of collisions at a particular location, derived by assigning a numeric value according to the severity of each collision and totaling those numeric values.

**Capacity** - The maximum number of vehicles that can pass over a given section of a lane or roadway in one direction during a given period under prevailing roadway and traffic conditions.

**Census Tracts** - Small areas with generally stable boundaries, defined within counties and statistically equivalent entities, usually in metropolitan areas and other highly populated counties. They are designed to be relatively homogeneous with respect to population characteristics, economic status and living conditions.

**Capital Improvement Plan** (CIP) – A comprehensive schedule of capital improvements needed within the city and establishes a program to accomplish those needs within the city's ability to pay.

**Congestion** - The level at which transportation system performance is no longer acceptable to the traveling public due to traffic interference.

**Environmental Justice** (EJ) - The fair treatment and meaningful involvement of all people regardless of race, color, national origin, culture, education, or income with respect to the development, implementation and enforcement of environmental laws, regulations and policies. In transportation, this requires review of whether the benefits and burdens of transportation investments appear to be distributed evenly across the regional demographic profile and, if necessary, mitigation of such effects.

**Functional Classification** - Identification and categorization scheme describing streets according to the type of service they provide into one of four categories: principal arterials, minor arterials, collectors and local.

**Functionally Obsolete Bridge** - A bridge inadequate to properly accommodate the traffic can be due to inadequate clearances, either horizontal or vertical, approach roadway alignment, structural condition, or waterway adequacy. Any posted bridge which is not structurally deficient would be included in this category. Structures in this category could include narrow bridges.

**General Aviation Airport** - Provide access to the population and economic activity centers of the state.

**Level of Service** (LOS) - Refers to a standard measurement used by planners which reflects the relative ease of traffic flow on a scale of A to F with free-flow being rated LOS A and congested conditions rated as LOS F.

**Local Sustaining Economies** - Geographical regions that function with some degree of

independence from the rest of the state. The Oklahoma Department of Commerce (ODOC) has identified 47 of these regions.

**Long Range Transportation Plan** - Every state and MPO must develop a long-range transportation plan (LRTP) for transportation improvements, including a bicycle and pedestrian element. The LRTP looks twenty (20) years ahead and is revised every five (5) years.

**Multi-modal** - The consideration of more than one mode to serve transportation needs in each area. Refers to the diversity of options for the same trip; also, an approach to transportation planning or programming which acknowledges the existence of or need for transportation options.

**National Highway System** - Represents four percent (4%) to five percent (5%) of the total public road mileage in the U.S. This system was designed to contain the follow subcategories:

- A. Interstate- The current interstate system retained its separate identity within the NHS along with specific provisions to add mileage to the existing Interstate subsystem.
- B. Other Principal Arterials- These routes include highways in rural and urban areas which provide access between an arterial route and a major port, airport, public transportation facility or other intermodal transportation facility.
- C. Intermodal Connecting Links- These are highways that connect NHS routes to major ports, airports, international border crossings, public transportation and transit facilities, interstate bus terminals and rail and intermodal transportation facilities.

**National and State Scenic Byways** - Recognize highways that are outstanding examples of our nation's beauty, culture and recreational experience in exemplifying the diverse regional characteristics of our nation.

**Primary Commercial Service Airport** - An airport that receives scheduled passenger service and enplanes 10,000 or more passengers annually, as reported by the FAA.

**Strategic Highway Network(STRAHNET)** - Designation given to roads that provide "defense access, continuity, and emergency capabilities for movements of personnel and equipment in both peace and war." STRAHNET includes Routes (for long-distance travel) and Connectors (to connect individual installations to the Routes). This system includes the Dwight D. Eisenhower System of Interstate and Defense Highways, identified as strategically important to the defense of the United States.

**Structurally Deficient Bridge** - A bridge can be inadequate to carry legal loads, whether caused by obsolete design standards, structural deterioration, or waterway inadequacy. Structures in this category may include those posted to restrict load limits as well as those closed to all traffic.

**Surface Transportation Program** (STP) - A category of federal transportation funds administered by the Federal Highway Administration and allocated to states and metropolitan areas based on a prescribed formula. This category of funds can provide 80% of the cost to complete transportation improvement projects. These funds are flexible, and can be used for planning design, land acquisition, and construction of highway improvement projects, the capital costs of transit system development, and up to two years of operating assistance for transit system development.

**Traffic Analysis Zones** - A traffic analysis zone is the unit of geography most commonly used in conventional transportation planning models. The size of a zone varies and will vary significantly between the rural and urban areas. Zones are constructed by census block information. Typically, these blocks are used in transportation models by providing socio-economic data. This information helps to further the understanding of trips that are produced and attracted within the zone.

## **Appendix A: Resolution 09-04**

#### **RESOLUTION NO. 09-04**

# CREATION OF THE RURAL TRANSPORTATION PLANNING ORGANIZATION COMMITTEE

WHEREAS, local business and community leaders have expressed a strong desire to convene and discuss transportation needs and goals in the eight-county SWODA Region, and

WHEREAS, regional transportation planning is encouraged by legislation  $\it of$  the Federal Highway Administration, and

WHEREAS, SWODA is the federally recognized regional planning organization for the eight-county area, and

WHEREAS, the SWODA Board *of* Trustees seeks to facilitate the planning process for surface, air and rail development to aid the region in economic development, workforce development, business and industry growth, tourism development and other pursuits;

NOW THEREFORE, BE IT RESOLVED by the Board of Trustees of the South-Western Oklahoma Development Authority does hereby create the Rural Transportation Planning Organization as a standing committee of the Authority.

PASSED AND APPROVED this 13th day of October 2009.

T.L. GRAMLING, Chairman

ATTEST:

Mike Brown
MIKE BROWN, Secretary

# **Appendix B: Resolution 16-06**

#### **RESOLUTION NO. 16-06**

#### **EXPANSION OF THE REGIONAL TRANSPORTATION PLANNING**

#### **ORGANIZATION COMMITTEE**

**WHEREAS,** local business and community leaders have expressed a strong desire to convene and discuss transportation needs and goals in the sixteen (16) county South Western Oklahoma Development Authority (SWODA) and Association of South Central Oklahoma Governments (ASCOG) region, and

**WHEREAS,** regional transportation planning is encouraged by legislation of the Federal Highway Administration, and

**WHEREAS,** SWODA is the federally recognized regional planning organization for the sixteen (16) county area, and

**WHEREAS,** the SWODA Board of Trustees seeks to facilitate the planning process for surface and rail development to aid the region in economic development, workforce development, business and industry growth, tourism development and other pursuits;

**NOW THEREFORE, BE IT RESOLVED** by the Board of Trustees of the South Western Oklahoma Development Authority does hereby expand the Regional Transportation Planning Organization as a standing committee of the Authority.

John Schaufele

Chairman

PASSED AND APPROVED this 8th day of November, 2016

ATTEST:

John Dee Butchee, Secretary

# **Appendix C: Performance Measures**

Performance measures for State departments of transportation (State DOT) and Metropolitan Planning Organizations (MPO) were established by the Moving Ahead for Progress in the 21st Century Act (MAP-21). This Act transformed the Federal-aid highway program by establishing new requirements for performance management to ensure the most efficient investment of Federal transportation funds. Performance management increases the accountability and transparency of the Federal-aid highway program and provides a framework to support improved investment decision-making through a focus on performance outcomes for key national transportation goals. As part of performance management, recipients of Federal-aid highway funds will make transportation investments to achieve performance targets that make progress toward the following national goals:

- Safety—To achieve a significant reduction in traffic fatalities and serious injuries on all public roads.
- Infrastructure condition—To maintain the highway infrastructure asset system in a state of good repair.
- Congestion reduction—To achieve a significant reduction in congestion on the NHS.
- System reliability—To improve the efficiency of the surface transportation system.
- Freight movement and economic vitality—To improve the national freight network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
- Environmental sustainability—To enhance the performance of the transportation system while protecting and enhancing the natural environment.
- Reduced project delivery delays— To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

State Department of Transportations and Metropolitan Planning Organizations will be expected to use the information and data generated as a result of the new regulations to inform their transportation planning and programming decisions. The new performance aspects of the Federal-aid highway program that result from this rule will provide FHWA the ability to better communicate a national performance story and to assess the impacts of Federal funding investments more reliably.

The FHWA is required to establish performance measures to assess performance in 12 areas 1 generalized as follows:

- (1) Serious injuries per vehicle miles traveled (VMT);
- (2) fatalities per VMT;
- (3) number of serious injuries;
- (4) number of fatalities;
- (5) pavement condition on the Interstate System:
- (6) pavement condition on the non-Interstate NHS;
- (7) bridge condition on the NHS;

- (8) performance of the Interstate System;
- (9) performance of the non-Interstate NHS;
- (10) freight movement on the Interstate System;
- (11) traffic congestion; and
- (12) on-road mobile source emissions.

Table 3-1 in ODOT's 2015-2040 Long- Range Transportation Plan compares the 2015-2040 LRTP Goals and Performance Measures. Below is information contained in Table 3.1 of this Plan.

Table 3-1 ODOT 2015-2040 Long Range Transportation Plan.

2015-2040 LRTP Goals	Recommended Performance Measure
Safe and Secure Travel	<ul> <li>Reduction in traffic related fatalities and serious injuries         <ul> <li>Rate and number of traffic fatalities annually on all</li> <li>Oklahoma public roads</li> <li>Rate and number of traffic-related serious injuries annually on all Oklahoma public roads</li> </ul> </li> </ul>
Infrastructure Preservation	<ul> <li>Bridge Condition – Number of structurally deficient bridges</li> <li>Preservation of Pavement – Good/fair/poor condition index for NHS highways</li> </ul>
Economic Vitality	<ul> <li>Freight Movement         <ul> <li>Annual freight tonnage/value for truck, rail, and barge modes</li> <li>Measure of freight travel time reliability and/or speed</li> </ul> </li> <li>Congestion         <ul> <li>Travel time-based measure(s) of congestion</li> </ul> </li> </ul>
Mobility Choice, Connectivity and Accessibility	<ul> <li>Public Transit- Annual rural transit vehicle revenue miles</li> <li>Passenger Rail - Annual ridership and on-time performance for Amtrak Heartland Flyer</li> </ul>
Environmental Responsibility	<ul> <li>Clean fuels and improved air quality - Clean fuels as a share of ODOT's total fleet fuel use in gasoline gallon equivalents</li> <li>Reduce roadway flooding and support improved water quality - Quantity of Litter/Debris (cubic yards or other measure of weight and volume) cleared from storm drains/culverts/roadsides</li> </ul>

Source: Oklahoma Department of Transportation

Appendix 2.1: Stephens County, Socio Economic Information, 2011-2015 ACS

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<u>Sex and Age</u>			
Total population	44,806	****	44,806
Male	21,808	+/-122	48.7%
Female	22,998	+/-122	51.3%
Subject	Estimate	Margin	Percent
		of Error	
18 years and over	34,087	+/-27	76.1%
65 years and over	7,941	+/-80	17.7%
<u>Race</u>			
Total population	44,806	****	44,806
White	37,657	+/-247	84.0%
Black or African American	929	+/-156	2.1%
American Indian and Alaska	2,603	+/-253	5.8%
Native			
Asian	232	+/-50	0.5%
Native Hawaiian and Other	21	+/-19	0.0%
Pacific Islander			
<u>Hispanic or Latino</u>			
Total population	44,806	****	44,806
Hispanic or Latino (of any race)	3,063	****	6.8%

Source: 2011-2015 ACS

<u>Appendix 2.2: Stephens County, Employment Status and Commute to Work 2011-2015 ACS</u>

EMPLOYMENT STATUS	ESTIMATE	MARGIN OF ERROR	PERCENT
Population 16 years and over	35,388	+/-91	35,388
In labor force	20,429	+/-477	57.7%
Civilian labor force	20,365	+/-463	57.5%
Employed	19,029	+/-474	53.8%
Unemployed	1,336	+/-194	3.8%
Armed Forces	64	+/-58	0.2%
Not in labor force	14,959	+/-455	42.3%
Civilian labor force	20,365	+/-463	20,365
Unemployment Rate	(X)	(X)	6.6%

EMPLOYMENT STATUS	ESTIMATE	MARGIN OF ERROR	PERCENT
Females 16 years and over	18,306	+/-78	18,306
In labor force	9,428	+/-325	51.5%
Civilian labor force	9,425	+/-325	51.5%
Employed	8,874	+/-311	48.5%
Commuting to Work			
Workers 16 years and over	18,567	+/-486	18,567
Car, truck, or van drove alone	15,191	+/-542	81.8%
Car, truck, or van – carpooled	2,096	+/-248	11.3%
Public transportation (excluding	115	+/-61	0.6%
taxicab)			
Walked	356	+/-112	1.9%
Other means	440	+/-105	2.4%
Worked at home	369	+/-80	2.0%
Mean travel time to work (minutes)	20.3	+/-0.9	(X)

<u>Appendix 2.3: Stephens County Occupation and Industry 2011 – 2015 ACS</u>

OCCUPATION	ESTIMATE	MARGIN OF ERROR
Civilian employed population 16 years and over	19,029	+/-474
Management, business, science, and arts occupations:	5,485	+/-366
Management, business, and financial occupations:	2,204	+/-256
Management occupations	1,484	+/-226
Business and financial operations occupations	720	+/-160
Computer, engineering, and science occupations:	756	+/-154
Computer and mathematical occupations	235	+/-83
Architecture and engineering occupations	421	+/-119
Life, physical, and social science occupations	100	+/-52
Education, legal, community service, arts, and media occupations:	1,598	+/-238
Community and social services occupations	289	+/-112
Legal occupations	99	+/-54
Education, training, and library occupations	1,067	+/-173
Arts, design, entertainment, sports, and media occupations	143	+/-78
Healthcare practitioner and technical occupations:	927	+/-144
Health diagnosing and treating practitioners and other technical occupations	452	+/-97
Health technologists and technicians	475	+/-110
Service occupations:	3,150	+/-265

OCCUPATION	ESTIMATE	MARGIN OF ERROR
Healthcare support occupations	604	+/-142
Protective service occupations:	294	+/-90
Firefighting and prevention, and other protective service workers including supervisors	183	+/-67
Law enforcement workers including supervisors	111	+/-60
Food preparation and serving related occupations	955	+/-150
Building and grounds cleaning and maintenance	703	+/-113
occupations Personal care and service occupations	594	+/-137
Sales and office occupations:	4,602	+/-351
Sales and related occupations	1,747	+/-228
Office and administrative support occupations	2,855	+/-301
Natural resources, construction, and maintenance occupations:	2,741	+/-292
Farming, fishing, and forestry occupations	125	+/-61
Construction and extraction occupations	1,720	+/-218
Installation, maintenance, and repair occupations	896	+/-157
Production, transportation, and material moving	3,051	+/-287
occupations:		
Production occupations	1,640	+/-197
Transportation occupations	790	+/-142
Material moving occupations	621	+/-130

Appendix 2.4: Stephens County Educational Attainment 2011-2015, ACS

Subject	Estimate	Margin of Error
Population 25 years and over	30,505	+/-66
Less than 9th grade	1,161	+/-167
9th to 12th grade, no diploma	3,227	+/-343
High school graduate (includes	11,857	+/-495
equivalency)		
Some college, no degree	7,549	+/-445
Associate's degree	1,430	+/-204
Bachelor's degree	3,897	+/-311
Graduate or professional degree	1,384	+/-181

Source: 2011-2015 ACS

Appendix 2.5: Stephens County, Housing Units and Vehicles Available 2011-2015 ACS

Subject	Estimate	Margin of Error	Percent
Housing Occupancy			
Total housing units	20,682	+/-67	20,682
Occupied housing units	17,868	+/-258	86.4%
Vacant housing units	2,814	+/-250	13.6%
Homeowner vacancy rate	2.6	+/-0.6	(X)
Rental vacancy rate	6.0	+/-1.8	(X)
<u>Units in Structure</u>			
Total housing units	20,682	+/-67	20,682
1-unit, detached	17,277	+/-245	83.5%
1-unit, attached	336	+/-101	1.6%
2 units	261	+/-92	1.3%
3 or 4 units	303	+/-80	1.5%
5 to 9 units	492	+/-104	2.4%
10 to 19 units	147	+/-47	0.7%
20 or more units	325	+/-71	1.6%
Mobile home	1,521	+/-198	7.4%
Boat, RV, van, etc.	20	+/-21	0.1%
<u>Vehicles Available</u>			
Occupied housing units	17,868	+/-258	17,868
No vehicles available	1,064	+/-154	6.0%
1 vehicle available	5,511	+/-258	30.8%
2 vehicles available	6,818	+/-333	38.2%
3 or more vehicles available	4,475	+/-296	25.0%

Source: 2011-2015 ACS

Appendix 2.6: Stephens County Means of Transportation, 2011-2015 ACS

Subject	Estimate	Margin of Error
Workers 16 years and over	18,567	+/-486
Means of Transportation to Work		
Car, truck, or van	93.1%	+/-1.1
Drove alone	81.8%	+/-1.8
Carpooled	11.3%	+/-1.3
In 2-person carpool	8.0%	+/-1.2
In 3-person carpool	1.7%	+/-0.7
In 4-or-more person carpool	1.6%	+/-0.4
Workers per car, truck, or van	1.07	+/-0.01
Public transportation (excluding	0.6%	+/-0.3
taxicab)		

Subject	Estimate	Margin of Error
Walked	1.9%	+/-0.6
Bicycle	0.3%	+/-0.2
Taxicab, motorcycle, or other	2.1%	+/-0.6
means		,
Worked at home	2.0%	+/-0.4
Time Leaving Home To Go To		,
<u>Work</u>		
12:00 a.m. to 4:59 a.m.	4.8%	+/-0.7
5:00 a.m. to 5:29 a.m.	3.9%	+/-0.7
5:30 a.m. to 5:59 a.m.	7.8%	+/-1.0
6:00 a.m. to 6:29 a.m.	8.1%	+/-1.0
6:30 a.m. to 6:59 a.m.	11.6%	+/-1.2
7:00 a.m. to 7:29 a.m.	16.2%	+/-1.3
7:30 a.m. to 7:59 a.m.	16.3%	+/-1.3
8:00 a.m. to 8:29 a.m.	8.4%	+/-1.0
8:30 a.m. to 8:59 a.m.	3.9%	+/-0.6
9:00 a.m. to 11:59 p.m.	19.1%	+/-1.4
•		,
<u>Travel Time To Work</u>		
Less than 10 minutes	24.3%	+/-1.9
10 to 14 minutes	20.9%	+/-1.8
15 to 19 minutes	19.8%	+/-1.6
20 to 24 minutes	9.0%	+/-1.0
25 to 29 minutes	2.0%	+/-0.4
30 to 34 minutes	8.7%	+/-1.0
35 to 44 minutes	4.5%	+/-0.9
45 to 59 minutes	5.1%	+/-0.9
60 or more minutes	5.8%	+/-0.8
Mean travel time to work	20.3	+/-0.9
(minutes)		
<u>Vehicles Available</u>		
Workers 16 years and over in	18,557	+/-487
households		
No vehicle available	2.6%	+/-0.8
1 vehicle available	19.2%	+/-1.6
2 vehicles available	43.1%	+/-2.3
3 or more vehicles available	35.1%	+/-2.4

Appendix 2.7: Stephens County Selected Economic, 2011-2015 ACS

Appendix 2.7: Stephens County Selected Economic, 2011-2015 ACS			
Subject	Estimate	Margin of Error	Percent
Employment Status			
Population 16 years and over	35,388	+/-91	35,388
In labor force	20,429	+/-477	57.7%
Civilian labor force	20,365	+/-463	57.5%
Employed	19,029	+/-474	53.8%
Unemployed	1,336	+/-194	3.8%
Armed Forces	64	+/-58	0.2%
Not in labor force	14,959	+/-455	42.3%
Civilian labor force	20,365	+/-463	20,365
Unemployment Rate	(X)	(X)	6.6%
Commuting to Work			
Workers 16 years and over	18,567	+/-486	18,567
Car, truck, or van drove alone	15,191	+/-542	81.8%
Car, truck, or van carpooled	2,096	+/-248	11.3%
Public transportation (excluding taxicab)	115	+/-61	0.6%
Walked	356	· · · · · · · · · · · · · · · · · · ·	1.9%
Other means	440	+/-112	2.4%
Worked at home		+/-105	
Worked at nome	369	+/-80	2.0%
Mean travel time to work (minutes)	20.3	+/-0.9	(X)
Occupation			
Civilian employed population 16 years and over	19,029	+/-474	19,029
Management, business, science, and arts occupations	5,485	+/-366	28.8%
Service occupations	3,150	+/-265	16.6%
Sales and office occupations	4,602	+/-351	24.2%
Natural resources, construction, and maintenance occupations	2,741	+/-292	14.4%
Production, transportation, and material moving occupations	3,051	+/-287	16.0%
<u>Industry</u>			
Civilian employed population 16 years and over	19,029	+/-474	19,029
Agriculture, forestry, fishing and hunting, and mining	2,827	+/-299	14.9%
Construction	1,227	+/-214	6.4%

Subject	Estimate	Margin of Error	Percent
Manufacturing	1,812	+/-190	9.5%
Wholesale trade	381	+/-90	2.0%
Retail trade	2,180	+/-267	11.5%
Transportation and warehousing, and utilities	930	+/-144	4.9%
Information	191	+/-76	1.0%
Finance and insurance, and real estate and rental and leasing	997	+/-132	5.2%
Professional, scientific, and management, and administrative and waste management services	1,125	+/-176	5.9%
Educational services, and health care and social assistance	4,052	+/-332	21.3%
Arts, entertainment, and recreation, and accommodation and food services	1,323	+/-213	7.0%
Other services, except public administration	1,121	+/-163	5.9%
Public administration	863	+/-197	4.5%
<u>Class of Worker</u>			
Civilian employed population 16 years and over	19,029	+/-474	19,029
Private wage and salary workers	14,849	+/-491	78.0%
Government workers	2,780	+/-272	14.6%
Self-employed in own not incorporated business workers	1,325	+/-187	7.0%
Unpaid family workers	75	+/-53	0.4%
Income and Benefits (In 2015 Inflation Adjusted Dollars			
Total households	17,868	+/-258	17,868
Less than \$10,000	1,582	+/-213	8.9%
\$10,000 to \$14,999	1,149	+/-159	6.4%
\$15,000 to \$24,999	2,411	+/-187	13.5%
\$25,000 to \$34,999	2,165	+/-218	12.1%
\$35,000 to \$49,999	2,557	+/-271	14.3%
\$50,000 to \$74,999	3,235	+/-235	18.1%
\$75,000 to \$99,999	2,055	+/-220	11.5%
\$100,000 to \$149,999	1,839	+/-179	10.3%
\$150,000 to \$199,999	390	+/-94	2.2%
\$200,000 or more	485	+/-104	2.7%
Median household income (dollars)	43,781	+/-2,067	(X)

Appendix 2.8: Stephens County Population and Employment by TAZ

TAZ NO.	2010 POPULATION	2011-2015 EMPLOYMENT
1	868	65
2	730	125
3	129	55
4	611	85
5	471	55
6	851	35
7	677	305
8	316	20
9	131	65
10	587	65
11	525	10
12	602	75
13	701	50
14	280	35
15	945	35
16	870	500
17	827	225
18	91	235
19	593	25
20	783	45
21	514	105
22	1064	45
23	481	55
100	619	75
101	714	200
102	880	130
103	309	465
104	528	35
105	484	265
106	651	105
107	632	125
200	581	125
300	869	105
301	736	145
400	529	545

TAZ NO.	2010 POPULATION	2011-2015 EMPLOYMENT
401	31	450
402	326	85
403	78	105
404	659	150
405	803	15
406	718	165
407	297	115
408	1062	225
409	869	800
410	726	485
411	596	95
412	979	145
413	663	0
414	736	0
415	721	0
416	638	100
417	569	105
418	344	0
419	618	85
420	96	220
421	690	0
422	706	305
423	64	800
424	821	165
425	823	25
426	102	95
427	915	45
428	418	165
429	719	120
430	577	145
431	79	800
432	642	325
433	569	85
434	605	75
435	471	650
436	404	600
437	795	355
438	209	700
439	548	425

TAZ NO.	2010 POPULATION	2011-2015 EMPLOYMENT
440	88	185
441	25	314
442	489	85
443	678	85
444	2	655
445	188	400
446	0	800
447	13	290
448	129	400
449	0	300
450	571	500

Source: SORTPO, US Census, American Factfinder

Appendix 2.9: Stephens County Major Employers, 2016

Appendix 2.9: Stephens County BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2016 # EMPLOYEES	TAZ
Advanced Pumping Unit Service	3812 Highway 29	Bray	5-9	6
Bray Convenience Store	SH 29/Brooks Rd	Bray	10-19	5
Bray Public Schools	1205 S. Brooks Rd	Bray	43	6
Central High Public Schools	274801 Broncho Rd.	Central High	50-99	1
3 B Industries	2 Industrial Park	Comanche	20-49	300
City of Comanche	500 N. Rodeo Dr.	Comanche	20-49	300
Comanche Middle School	1030 Ash Ave	Comanche	50-99	301
Comanche Public Schools	1030 Ash Ave.	Comanche	150	301
Delbert's Supermarket	601 Hillary Rd	Comanche	20-49	300
First National Bank	228 W. Oak	Comanche	10-19	31
Grandview Public Schools	Rt 1	Comanche	10-19	21
Hop & Sack	200 S. Rodeo	Comanche	10-19	301
Meridian Nursing Home	179791 N. 2820 Rd.	Comanche	50-99	15
Miller Construction	183863 N 2810 Rd	Comanche	10-19	22
Sonic Drive In	409 Rodeo Dr.	Comanche	10-19	300
Stephens County District 3	182560 N2810 Rd.	Comanche	18	15
Applebee's Restaurant	2002 N. Highway 81	Duncan	50-99	410
Arbys Restaurant	2001 N. Highway 81	Duncan	20-49	409
Arvest Bank	729 W. Main	Duncan	50-99	431
ASCOG Area On Aging	802 W Main St	Duncan	50-99	438
BancFirst	16 S. 9th	Duncan	20-49	431
BancFirst	1616 W. Elk	Duncan	20-49	421
Billinsgley Ford	3505 N. Highway 81	Duncan	50-99	407
Braum's Dairy Store	1850 N. Highway 81	Duncan	20-49	410
Burger King	1501 N. Highway 81	Duncan	50-99	409
Byford Auto Group	8703 N. Highway 81	Duncan	135	400
Cameron Duncan Campus	3100 W. Bois D'Arc	Duncan	50-99	441
Cameron Valves & Measurement	7000 Nix Dr	Duncan	90	401
Carl's Junior Restaurant	1235 N. Highway 81	Duncan	20-49	422
Chicken Express Restaurant	2015 N. Highway 81	Duncan	20-49	409
Chisholm Trail Casino	7807 N. Highway 81	Duncan	250-499	400
City of Duncan	720 W. Willow	Duncan	216	437
Country Club Care	1904 N. Highway 81	Duncan	117	410
Duncan Banner	1001 W Elm Ave	Duncan	50-99	437

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2016 # EMPLOYEES	TAZ
Duncan Builders	116 N. 7th	Duncan	20-49	416
Duncan High School	515 N. 19th St.	Duncan	100-249	422
Duncan Machine Products	1003 S. 2nd	Duncan	39	445
Duncan Middle School	601 Chisholm Trail Parkway	Duncan	71	425
Duncan Power & Light	800 M.L. King	Duncan	10-19	444
Duncan Regional Hospital	1407 Whisenant	Duncan	989	423
Eduardo's Mexican Restaurant	1304 N Highway 81	Duncan	50-99	405
Elk Crossing Healthcare LLC	811 W Elk Ave	Duncan	50-99	404
Ellsworth Electrical	4425 N. Highway 81	Duncan	50-99	400
Emerson Elementary School	1200 Hickory Ave.	Duncan	25	419
Empire School District	9450 W. Cherokee	Duncan	50-99	12
Eurest Services	21 S. 9th St	Duncan	147	437
Family Dollar Distribution	201 E. Cherokee Rd.	Duncan	360	449
First Bank and Trust	923 W. Main	Duncan	50-99	431
Goodners Grocery Store	109 E. Main St.	Duncan	20-49	432
Halliburton Energy Services	215 W. Bois D'Arc	Duncan	250-499	439
Halliburton Energy Services	1015 W. Bois D'Arc	Duncan	500-999	439
Homeland Grocery	1401 W. Beech	Duncan	50-99	419
Horace Mann Elementary School	1201 Whisenant	Duncan	35	424
Jett Solution	7322 N Highway 81	Duncan	50-99	401
Jomax Construction	4914 N Highway 81	Duncan	50-99	405
Kanakuk Inc	1904 N Highway 81	Duncan	50-99	410
KFC	1208 N. Highway 81	Duncan	20-49	420
LE Jones	15 S. 10th St.	Duncan	40	438
Legal Shield	1516 W. Plato	Duncan	120	410
M&M Supply	400 E. Bois D'Arc	Duncan	114	436
Mack Energy Co	1202 N. 10th	Duncan	75	416
Mark Twain Elementary School	2204 W. Oak Ave.	Duncan	32	428
McDonalds Restaurant	1817 N. Highway 81	Duncan	50-99	409
McDonalds Restaurant	1718 N. Highway 81	Duncan	20-49	409
Nova Hydra Rig	1200 E. Highway 7	Duncan	150	447
Oklahoma State Department of Transportation Division 7	2205 S. Highway 81	Duncan	80	450
Patco Electrical	1301 S. Highway 81	Duncan	90	442

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2016 # EMPLOYEES	TAZ
Plains Pipeline LP	177922 N 2810 Rd	Duncan	500-999	14
Plato Elementary School	1011 W. Plato	Duncan	25	406
Power Print	2103 W Beech Ave	Duncan	50-99	424
Red River Technology Center	3300 W. Bois D'Arc	Duncan	50-99	441
Sellers HVAC	1655 W. Camelback	Duncan	20-49	400
Serva Group	3600 S. 13th	Duncan	50-99	444
Simmons Center Recreation Ctr	800 Chisholm Trail Parkway	Duncan	50-99	424
Southern Machine Works	907 E. Bois D'Arc	Duncan	25	435
Stephens County Courthouse	101 S. 11th St.	Duncan	129	439
Stephens County Dept of Human Services	1805 W. Plato	Duncan	50-99	407
Stephens County District 1	805 W. Bois D'Arc	Duncan	18	428
Stephens County Fairgrounds	2002 S. 13th St.	Duncan	11	444
Stimlab	7406 N. Highway 81	Duncan	40	401
Taco Bell	1125 N. Highway 81	Duncan	20-49	422
Territory Golf & Country Club	800 Territory Ln	Duncan	50-99	11
Think Ability First/Duncan Group Homes	1301 W. Main	Duncan	50-99	424
Tilley Group	5201 N. Highway 81	Duncan	45	407
Universal Fidelity Life Insurance	815 W. Ash Ave	Duncan	50-99	430
US Post Office	802 W Willow Ave # 100	Duncan	50-99	437
VALCO Mfg.	925 Boren Blvd.	Duncan	40	405
Walmart Supercenter	1845 N. Highway 81	Duncan	445	409
Waste Collections	5900 E. Highway 7	Duncan	20-49	447
Wilkins Health and Rehab Comm	1205 S. 4th	Duncan	130	445
Will Rogers Pre-K Center	1413 N. 13th	Duncan	25	418
Woodrow Wilson Elementary School	700 E. Chestnut	Duncan	25	433
WW Builders Inc	2625 S. Highway 81	Duncan	20-49	450
Youth Services of Stephens County	16 S. 7th St.	Duncan	50-99	438
BancFirst	130 N. Broadway	Marlow	10-19	101
BancFirst	128 W. Main	Marlow	20-49	103
Cable Meat Market	1016 S. Broadway	Marlow	10-19	102

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2016 # EMPLOYEES	TAZ
Central Burial Vaults	1422 N. Highway 81	Marlow		101
CESI	1004 S. Plainsman	Marlow	50-99	102
Chisholm Corner/BBBM LLc City Mart	1102 N. Broadway	Marlow	10-19	101
Cimarron Energy	120 E. Blackburn	Marlow	105	102
City of Marlow	119 S. 2nd	Marlow	7	103
City of Marlow Police & Fire	115 N. 2nd	Marlow	15	101
City of Marlow Yard	202 N. Railroad	Marlow	20	102
Dollar General	302 W. Main St.	Marlow	10-19	105
Family Dollar	1407 S. Broadway	Marlow	10-19	107
First National Bank Marlow	301 W. Main	Marlow	10-19	105
Frontier Feeds	1805 W. Nabors	Marlow	20-49	3
Gregson's Nursing Home/Stepping Stone	711 S. Broadway	Marlow	76	107
Hertzler Electric	2417 S. Highway 81	Marlow	10-19	2
Legacy Bank	1401 S. Highway 81	Marlow	10-19	107
Marathon Oil	2201 S. Highway 81	Marlow	32	2
Marlow Elementary School	408 S. 7th	Marlow	40	105
Marlow Floral	119 W. Main St.	Marlow	10-19	101
Marlow Food	610 S. Highway 81	Marlow	10-19	103
Marlow High School	510 W. Main	Marlow	30	105
Marlow Manor	702 S. 9th	Marlow	50-99	107
Marlow Middle School	201 S. 9th	Marlow	20	106
Newberry's Pharmacy	801 S. Broadway	Marlow	30	107
Rehme Manufacturing Inc	100 W. Cherokee	Marlow	50-99	103
Scott Family Dentistry	1919 S. Broadway	Marlow	10-19	2
Sonic Drive In	908 N. Broadway	Marlow	20-49	101
Stephens County District 2	1208 S. Railroad	Marlow	10-19	102
Taco Mayo	1012 N. Highway 81	Marlow	10-19	101
Travis Plumbing	1325 S. Highway 81	Marlow	10-19	107
USPHS	320 W. Main	Marlow	10-19	105
Walmart Jewelry Repair	1106 S. Broadway	Marlow	65	102
West Wind	111 N. 9th	Marlow	42	106
Wilco Fabrication and Manufacturing	1326 S. Broadway	Marlow	115	102
Y Restaurant	1007 W. Highway 7	Marlow	10-19	2
Bullet Energy	105 Alma Rd	Velma	20-49	200
Connect Transport	1407 Old Highway 7	Velma	20-49	200

BUSINESS / INDUSTRY NAME	STREET ADDRESS	CITY	2016 # EMPLOYEES	TAZ
First Bank and Trust	401 Main St.	Velma	5-9	200
Gilley Production	4th/Main St.	Velma	20-49	200
Jenkins Pump & Supply	Industrial Park E	Velma	10-19	200
Key Energy Svc	101 Alma Rd.	Velma	50-99	18
Kleen Oilfield Services Co	3030 County Road	Velma	75	200
S & W Transports	Old Highway 7	Velma	10-19	16
Speedy G's Convenience Story	102 Purdue	Velma	20-49	200
Town of Velma	910 Main St.	Velma	10-19	200
Velma Public Schools	1111 Main St.	Velma	50-99	200
Atlas Pipe/Mid Continent	Cherokee Rd.	Velma	50-99	17
RE Oilfield	Terry/Texaco Rd.	Velma	20-49	17
WW Sanner Pipe & Salvage	3 N. Sanner Rd.	Velma	5-9	17

Source: Oklahoma Employment Security Commission, Duncan Area Economic Development Foundation

## Appendix 2.10: Environmental and Development Concerns

The environmental features and constraints were identified using secondary source information from the following: United States Environmental Protection Agency (USEPA), Oklahoma Geological Survey, Oklahoma Department of Fish and Wildlife Resources, Oklahoma Department for Environmental Quality (ODEQ), United States Department of Agriculture (USDA), United States Department of the Interior Fish and Wildlife Service (USFWS), United States Geological Survey (USGS), Oklahoma University Geographic Information System (GIS) and other state and local agencies

Streams are natural corridors that provide habitat for fish, insects, wildlife and recreational benefits to people such as hunting, fishing, boating, bird watching, as well as, aesthetic benefits. Streams also provide drinking water for wild animals, livestock and people. There are two (2) major rivers in the county, supplied by numerous streams; however, following years of extreme drought, many of these steams are dry. As of the origin of this plan, none are on the "watch list" of the Oklahoma Department of Environmental Quality (ODEQ) and none are designated as scenic waterways.

State and federal agencies classify plants and animals as threatened or endangered when their numbers are low or declining due to direct destruction (from development or pollution, for example) or loss or degradation of suitable habitat. The presence of a threatened or endangered species in an area is an indicator of a better or good quality environment. However, there is no state or federally listed endangered species specific to Stephens County.

The Special Flood Hazard Area is an area designated width along a stream or river with a 1% chance of flooding annually. These areas are protected to prevent any increase in the risks or severity of possible future floods and to maintain their natural and ecological benefits.

The National Register of Historic Places (NRHP) is a list of properties determined significant in American history, architecture, archaeology, engineering, or culture, by virtue of design or architectural criteria, association with historical persons and events, and/or value for historic or prehistoric information. Under state and federal law, NRHP listed and NRHP eligible properties are afforded equal protection from impact. NRHP properties are designated to help state and local governments, Federal agencies, and others identify important historic and archaeological resources, to ensure their protection, either through preservation, or minimization and mitigation of impact.

Appendix 2.11: Stephens County Environmental Features

DESCRIPTION	LOCATION
Clear Creek Lake	
Lake Humphreys	
Fuqua Lake	
Garland Smith Library	Marlow
Duncan National Guard Amory	Duncan
Montgomery-Linam House	Marlow
Brittain-Garvin House	Marlow
H.C. Chrislip House	Duncan
Duncan Public Library (N. 8 <sup>th</sup> St.)	Duncan
W.T. Foreman House	Duncan
Johnson Hotel & Boarding House	Duncan
Patterson Hospital	Duncan
Louis B. Simmons House	Duncan
Wild Horse Creek	Marlow
Claridy Creek	Duncan
There is an area of contaminated ground water near	Duncan
the Halliburton North Facility on Osage Road.	

Source: SORTPO. http://www.deq.state.ok.us/lpdnew/VCP/HalliburtonOsageRd/PerchloratesDuncanGW.pdf

Appendix 2,12: Stephens County Type of Collision Total, 2012-2016

TYPE OF COLLISION	Fat	Inj *	PD	Tot	Pct
Rear-End (front-to-rear)	2	243	509	754	23.1
Head-On (front-to-front)	7	18	17	42	1.3
Right Angle (front-to-side)	2	214	270	486	14.9
Angle Turning	3	108	287	398	12.2
Other Angle		1	8	9	0.3
Sideswipe Same Direction		13	124	137	4.2
Sideswipe Opposite Direction	3	13	43	59	1.8
Fixed Object	8	256	378	642	19.6
Pedestrian	3	27	1	31	0.9
Pedal Cycle		9	1	10	0.3
Animal	1	23	92	116	3.5
Overturn/Rollover	2	80	41	123	3.8
Vehicle-Train		1	1	2	0.1
Other Single Vehicle Crash		15	23	38	1.2
Other	1	44	378	423	12.9
Total	32	1065	2173	3270	100
Percent	1.0	32.6	66.5	100	

 $Source: ODOT\ Traffic\ Engineering\ Div.\ Collision\ Analysis\ and\ Safety\ Branch\ * Include\ incapacitating, non-incapacitating\ and\ possible\ injuries.$ 

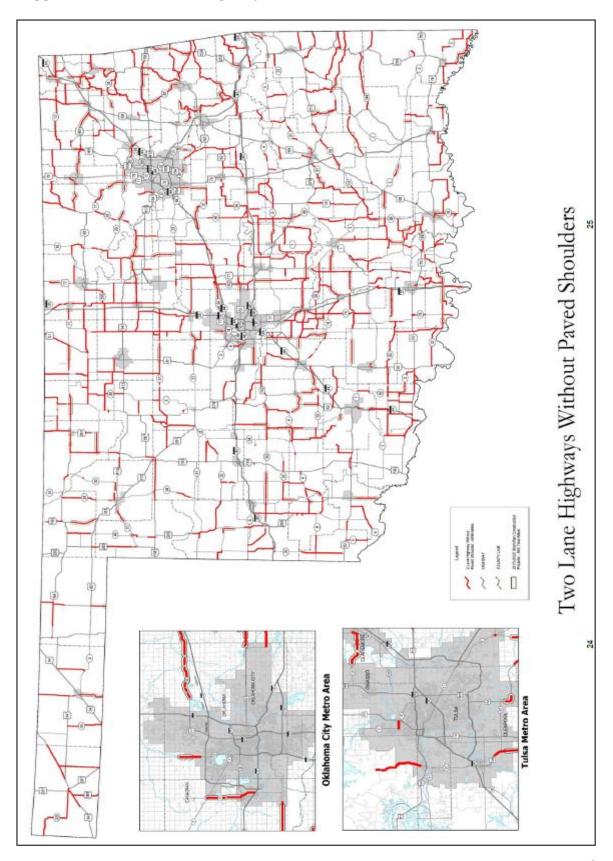
Appendix 2.13: Stephens County Collision Vehicles by Vehicle Type, Total, 2012-2016

VEHICLE TYPE	FAT	INJ*	PD	TOT	PCT
Passenger Vehicle-2 Door	1	98	286	385	6.8
Passenger Vehicle-4 Door	10	401	1,265	1,676	29.5
Passenger Vehicle-Convertible		11	17	28	0.5
Pickup Truck	9	345	1,593	1,947	34.3
Single-Unit Truck (2 axles)		4	35	39	0.7
Single-Unit Truck (3 or more axles)		4	8	12	0.2
School Bus		1	10	11	0.2
Truck/Trailer		4	29	33	0.6
Truck-Tractor (bobtail)		1	14	15	0.3
Truck-Tractor/Semi-Trailer		15	84	99	1.7
Bus/Large Van (9-15 seats)		1	6	7	0.1
Bus (16+ seats)		1	4	5	0.1
Motorcycle	6	67	13	86	1.5
Motor Scooter/Moped		1		1	
Farm Machinery			3	3	0.1
ATV		1		1	
Sport Utility Vehicle (SUV)	2	217	839	1,058	18.6
Passenger Van	1	28	105	134	2.4
Truck More Than 10,000 lbs.		1	5	6	0.1
Van (10,000 lbs. or less)	1	7	19	27	0.5
Other		2	102	104	1.8
Total	30	1,210	4,437	5,677	100
Percent	0.5	21.3	78.2	100	

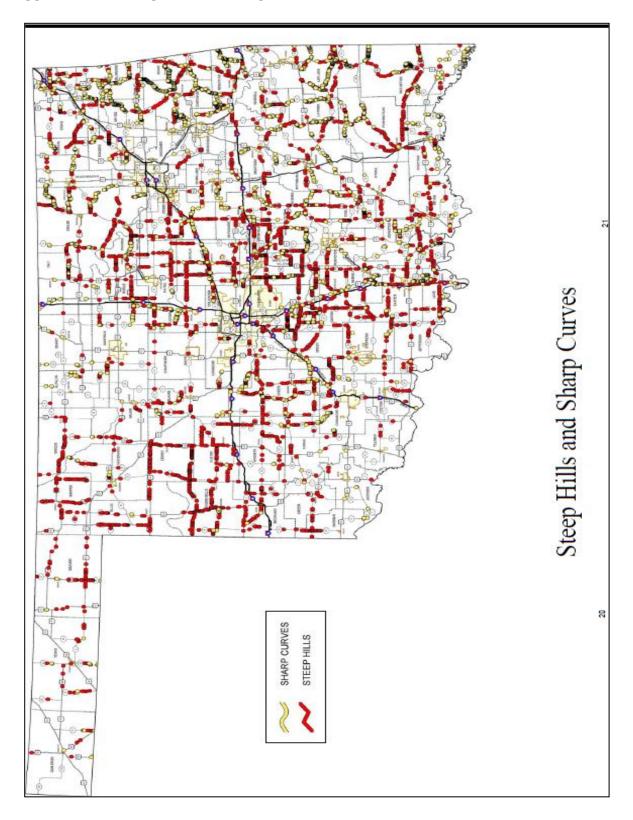
Source: ODOT Traffic Engineering Div. Collision Analysis and Safety Branch

<sup>\*</sup>Include incapacitating, non-incapacitating and possible injuries

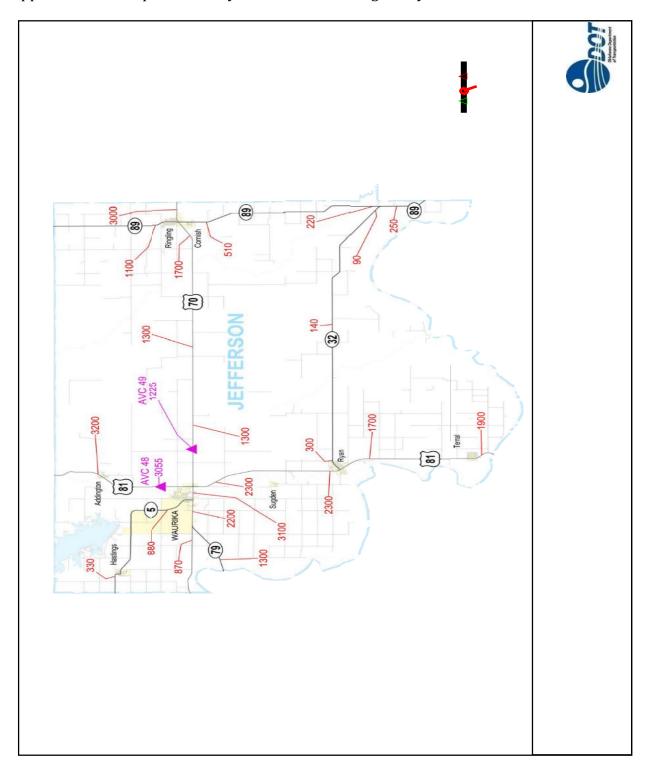
Appendix 2.14: Two Lane Highways Without Paved Shoulders



Appendix 2.15: Steep Hills and Sharp Curves



Appendix 2.16: Stephens County 2015 Annual Average Daily Traffic Count



## Appendix 2.17: Functional Classification and Road Systems

Functional classification is the grouping of roads, streets and highways into integrated systems ranked by their importance to the general welfare, motorist and land use structure. It is used to define the role that any road should play in providing mobility for through movements and access adjoining land. This grouping acknowledges that roads have different levels of importance and provides a basis for comparing roads fairly.

Functional classification can be used for, but is not limited to, the following purposes:

- Provide a framework for highways serving mobility and connecting regions and cities within a state.
- Provide a basis for assigning jurisdictional responsibility according to the overall importance of a road.
- Provide a basis for development of minimum design standards according to function.
- Provide a basis for evaluating present and future needs.
- Provide a basis for allocation of limited financial resources.

Historically, one of the most important uses of functional classification of streets has been to identify streets and roads that are eligible for federal funds. The original federal aid primary, federal aid secondary, federal aid urban and national interstate systems all relied on functional classification to select eligible routes. In 1991, the Intermodal Surface Transportation Efficiency Act (ISTEA) eliminated the primary, secondary and urban federal aid systems and created the National Highway System (NHS). ISTEA continued the requirement that a street, road or highway had to be classified higher than a "local" in urban areas and higher than a "local" and "minor collector" in rural areas before federal funds could be spent on it. The selection of routes eligible for NHS funding was also based on functional criteria. While eligibility for federal funding continues to be an important use for functional classification, it has also become an effective management tool in other areas of transportation planning.

Streets are grouped into functional classes according to the character of service they are intended to provide. Oklahoma's Functional Classification system undergoes a comprehensive review after each decennial U.S. Census. The functional classification of streets includes the following functional classes: Interstate, Freeway, Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector and Rural Minor Collector.

<u>Rural Principal Arterial</u> - A rural principal arterial road includes the following service characteristics:

- Traffic movements with trip length and density suitable for substantial statewide travel.
- Traffic movements between urban areas with populations over 25,000.
- Traffic movements at high speeds.
- Divided four-lane roads.
- Desired LOS C.

<u>Rural Minor Arterial</u> - A rural minor arterial road includes the following service characteristics:

- Traffic movements with trip length and density suitable for integrated interstate or inter-county service.
- Traffic movements between urban areas or other traffic generators with populations less than 25,000.
- Traffic movements at high speeds.
- Undivided four-lane roads.
- Striped for one or two lanes in each direction with auxiliary lanes at intersections as required by traffic volumes.
- Desired LOS C.

<u>Rural Major Collector</u> - A rural major collector road includes the following service characteristics:

- Traffic movements with trip length and density suitable for inter-county service.
- Traffic movements between traffic generators, between traffic generators, larger cities and between traffic generators and routes of a higher classification.
- Traffic movements subject to a low level of side friction.
- Development may front directly on the road.
- Controlled intersection spacing of 2 miles or greater.
- Striped for one lane in each direction with a continuous left turn lane.
- Desired LOS C.

<u>Rural Minor Collector</u> - A rural minor collector road includes the following service characteristics:

- Traffic movements between local roads and collector roads.
- Traffic movements between smaller communities and developed areas.
- Traffic movements between locally important traffic generators within their remote regions.
- Two-lane undivided roads with intersections at grade and designed to take a minimum interference of traffic from driveways appropriate to a rural setting.
- Striped for one lane in each direction.
- Desired LOS B.

<u>Rural Local Road</u> - A rural local road includes the following service characteristics:

- Two-lane undivided roads with intersections at grade.
- Traffic movements between collectors and adjacent lands.
- Traffic movements involving relatively short distances.
- Desired LOS A.

## Level of Service

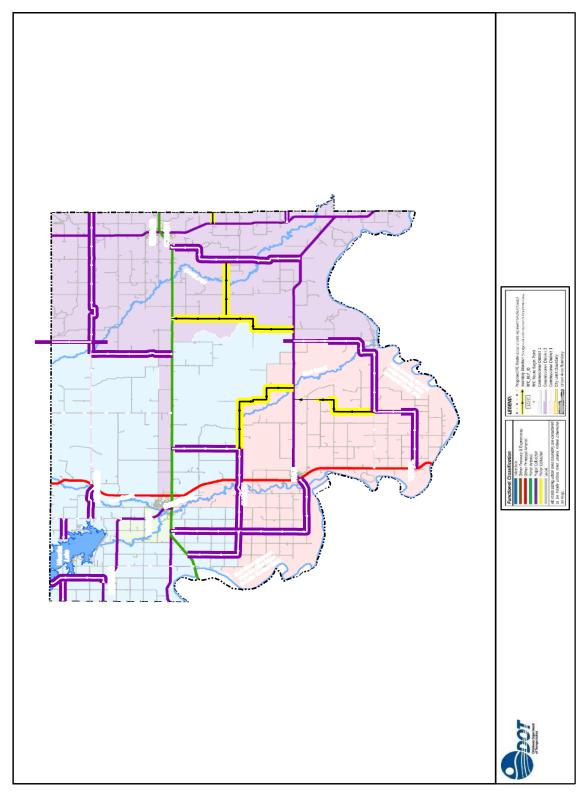
Street Capacity: The measure of a street's ability to accommodate the traffic volume along

the street. Level of Service Ranges from LOS A: Indicates good operating conditions with little or no delay, to LOS F, which indicates extreme congestion and long vehicle delays.

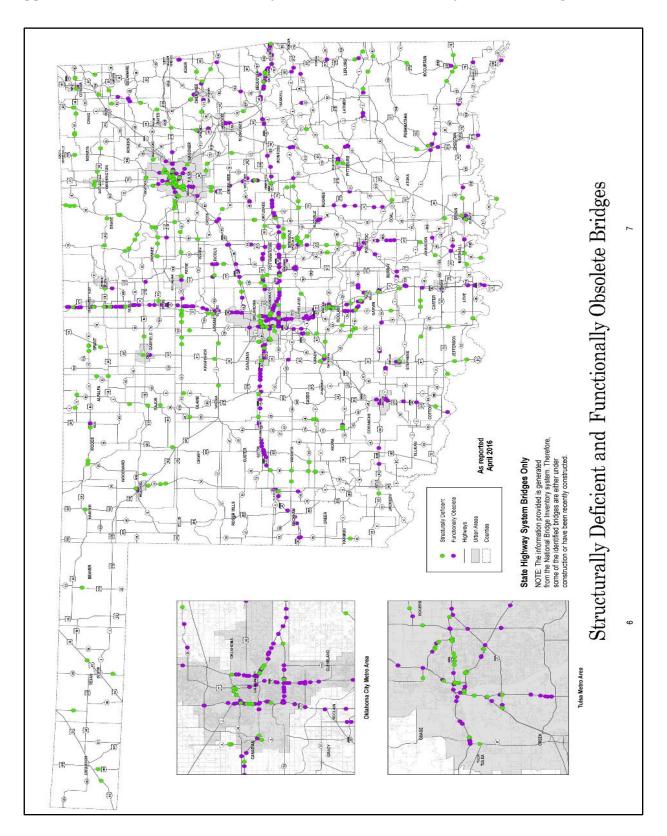
The following is a list of the various LOS with abbreviated definitions from the Highway Capacity Manual:

- LOS A: Describes a condition with low traffic volumes with little or no delays. There is little or no restriction in maneuverability due to the presence of other vehicles. Drivers can maintain their desired speeds and can proceed through signals without having to wait unnecessarily. Operating capacity can be measured as less than thirty percent (30%) of capacity.
- LOS B: Describes a condition with stable traffic flow with a high degree of choice to select speed and operating conditions, but with some influence from other drivers. Operating capacity can be measured as less than fifty percent (50%) of capacity.
- LOS C: Describes the beginning of the range of flow in which the operation of individual users becomes significantly affected by interactions with others in the traffic stream. LOS C is normally utilized as a measure of "average conditions" for design of facilities in suburban and urban locations. Operating capacity can be measured as less than sixty-nine percent (69%) of capacity.
- LOS D: Describes high density flow in which speed and freedom to maneuver is severely restricted even though flow remains stable. LOS D is considered acceptable during short periods of time and is often used in large urban areas. Operating capacity can be measured as less than seventy percent (70%) to ninety percent (90%) of capacity.
- LOS E: Describes operating conditions at or near capacity. Operations at this level are usually unstable, because small increases in flow or minor disturbances within the traffic stream will cause breakdowns. Operating capacity can be measured as between ninety percent (90%) to ninety-nine percent (99%) of capacity.
- LOS F: Is used to define forced or breakdown flow. This condition exists whenever the amount of traffic approaching a point exceeds the amount that can be served. LOS F is characterized by demand volumes greater than the roadway capacity. Under these conditions, motorists seek other routes in order to Bypass congestion, thus impacting adjacent streets. Operating capacity can be measured above one hundred percent (100%) of capacity.

Appendix 2.18: Stephens County Functional Classification



Appendix 2.19: Oklahoma Structurally Deficient and Functionally Obsolete Bridges



Appendix 2.20: Stephens County On System Bridges with Sufficiency Rate

	lens County on System Bri	SUFFICIENCY	YEAR	ADT	ADT
FACILITY	LOCATION	RATE	BUILT	TOTAL	YEAR
SH 53	4.4 E. of JCT US 81	n/a	1901	n/a	n/a
US 81	6.9 N. of JCT SH 53	n/a	1901	n/a	2010
S. Duncan Bypass	7.2 N. of SH 53	n/a	1901	n/a	2010
S. Duncan Bypass	7.2 N. SH 53	n/a	1901		2010
SH 7	1.9 MI E. Comanche CO	84.9	1926	7400	2015
SH 7	2.1 MI E. Comanche CO	84.9	1926	7400	2015
SH 53	3.4 MI W. JCT US 81	94	1926	1500	2015
SH 53	SH 53; 0.3 MI W. JCT US 81	77.1	1926	3200	2015
SH 53	SH 53; 0.1 MI W. JCT US 81	47.3	1926	3200	2015
SH 53	3.3 MI W. JCT US 81	92.9	1926	1500	2015
SH 53	1.2 MI W. JCT SH 89	69.4	1926	550	2015
SH 29	2.1 MI W. GARVIN C/L	82.2	1927	1600	2015
S. Duncan Bypass	7.9 N. SH 53	n/a	1901	n/a	2010
S. Duncan Bypass	8.1 N. SH 53	n/a	1901	n/a	2010
S. Duncan Bypass	8.5 N. OF SH 53	n/a	1901	n/a	2010
SH 29	0.5 MI W. GARVIN C/L	94	1927	1600	2015
SH 53	7.0 MI E. JCT US 81	41.6	1927	490	2005
SH 7	2.0 MI W. CARTER C/L	85.1	1977	3500	2015
SH 29	0.4 MI E. JCT US 81	78.8	1972	3400	2015
SH 53	5.9 MI W. JCT SH 89	45.5	1927	490	2014
SH 53	1.1 MI W. JCT SH 89	99.2	1928	550	2015
SH 53	11.1 MI E. JCT US 81	73.3	1928	600	2015
SH 53	11.3 MI E. JCT US 81	78.8	1928	600	2015
SH 53	3.3 MI E. COTTON C/L	61.8	1935	1300	2015
SH 7	0.6 MI W. CARTER C/L	73.5	1977	3500	2015
US 81	6.5 MI N. JCT SH 53 & US 81	84.9	1979	7800	2015
US 81	0.1 MI N. JCT SH 53	84.9	1979	5800	2015
SH 53	5.9 W. OF JCT SH 89	99.1	2016	490	2015
SH 7	1.1 MI E. JCT US 81	83.9	1973	6000	2015
SH 7	2.0 MI E. OF US 81	84.1	1973	5000	2015
SH 7	3.2 MI E. JCT US 81	69.5	1967	4500	2015

FACILITY	LOCATION	SUFFICIENCY RATE	YEAR BUILT	ADT TOTAL	ADT YEAR
SH 7	11.1 MI E. JCT US 81	85.1	1967	3500	2015
SH 7	10.6 MI E. JCT US 81	85.1	1967	3500	2015
SH 7	7.2 MI E. JCT US 81	69.5	1967	4100	2015
SH 7	3.1 MI E. JCT US 81	58.5	1967	4500	2015
SH 7	0.9 MI E. US 81 Duncan	98.3	1973	9100	2015
US 81	5.9 MI N. JCT SH-53	74.6	1979	7800	2015
SH 7 EB	US 81 & SH 7 JCT	61.1	1973	10600	2015
SH 53	7.0 MI E. OF US 81	98.7	2008	700	2015
Bois D'Arc Ave.	1.8 MI W. JCT US 81	92.2	2010	4400	2015
SH 29	6.4 MI W. JCT SH 76	72	1936	1800	2015
SH 29	5.6 MI W. JCT SH 76	88.2	1940	1800	2015
SH 29	6.5 MI E. JCT US 81	57.7	1940	2300	2015
US 81	0.6 MI N. JCT SH 53	81.8	1952	5800	2015
SH 7	.7 MI E. OF US 81	67.9	1973	4150	2015
SH 7	.7 MI E. OF US 81	52.9	1973	4750	2015
SH 29	4.0 MI W. JCT SH 76	94	1953	1600	2015
SH 29	3.5 MI W. JCT SH 76	82.2	1953	1600	2015
SH 7A	0.5 MI E. JCT 81	95.9	1927	5600	2015
SH 53	0.1 MI W. CARTER C/L	98.9	1927	530	2015
SH 53	0.8 MI W. JCT SH 89	66.1	1927	550	2015
SH 53	4.4 MI E. JCT US 81	57.4	1927	790	2015
US 81	1.6 MI N. JCT SH 7	66	1953	25800	2015
US 81	1.3 MI S. JCT SH 53	84.5	1955	3200	2015
SH 53	SH 53; 0.4 MI E. JCT US 81	79.9	1927	1200	2015
SH 53	8.7 MI W. JCT SH 89	77.5	1927	490	2015
SH 53	8.6 MI W. JCT SH 89	66.5	1927	490	2015
SH 53	SH 53; 0.3 MI. E JCT US 81	42.3	1927	3500	2015
SH 29	6.6 MI E. JCT US 81	74.5	1974	2300	2015
SH 29	3.3 MI E. JCT US 81	89.4	1974	2600	2015
US 81	2.3 MI N. JCT SH-53	79.8	1976	6000	2015
SH 7	5.4 MI W. CARTER C/L	85.1	1977	3500	2015
SH 7	3.8 MI W. CARTER C/L	85.1	1977	3500	2015
SH 7	1.9 MI W. CARTER C/L	85.1	1977	3500	2015

FACILITY	LOCATION	SUFFICIENCY RATE	YEAR BUILT	ADT TOTAL	ADT YEAR
SH 53	0.7 MI E. JCT SH 89	98.9	1927	530	2015
SH 53	11.2 MI E. JCT US 81	61.9	1928	600	2015
US 81	1.2 MI S. JCT SH 7	73.8	1955	14400	2015
SH 7	5.8 MI E. Comanche CO	81	1957	3750	2015
SH 53	11.1 E. OF JCT US 81	n/a	1901	n/a	n/a
SH53	11.2 E. JCT US 81	n/a	1901	n/a	n/a
SH 76	0.2 MI N. JCT SH 29	95.6	1956	1400	2015
SH 53	8.6 MI W. SH 89	n/a	1901	n/a	n/a
SH 53	3.3 MI W. OF US 81	n/a	1901	n/a	n/a
SH 7	4.2 MI W. OF JCT US 81 & SH 7	95	1995	3700	2015
SH 7	3.7 MI W. OF US 81 & SH 7	95	1995	4050	2015
SH 7	4.4 MI W. OF JCT US 81 & SH 7	95	1995	3700	2015
SH 7 WB	US 81 & SH 7 JCT	92.7	2001	10600	2015
SH 7 Bypass Duncan	.6 MI. W. OF US 81	77	2001	4400	2015
SH 7 Bypass Duncan	1.6 MI. W. OF US 81	94.2	2001	4400	2015
SH 7 Bypass Duncan	.3 MI N. OF PLATO RD	95.5	2001	5800	2015
29TH ST	Under 29 <sup>TH</sup> , N. OF OSAGE RD.	86.9	2000	5800	2015
SH 7	6.2 MI E. Comanche CO	69.9	1957	4050	2015
SH 7	5.4 MI E. Comanche CO	69.9	1957	3750	2015
US 81	7.2 MI N. OF SH 53	84.9	2015	7800	2015
SH 53	1.4 MI E. OF COTTON C/L	99.2	2005	1300	2015
SH 7/ Duncan Bypass	1.7 MI W. OF US 81 BEECH AVE.	97.7	2006	5300	2015
SH 29	1.9 MI E. JCT US 81	89.8	1982	2800	2015
SH 29	0.7 MI E. OF JCT US 81	87.6	1982	3400	2015
US 81	6.7 MI N. JCT. SH 53 & US 81	84.9	1979	7800	2014
SH 29	3.3 MI E. OF US 81	n/a	1901	n/a	n/a
SH 53	8.7 MI W. SH 89	n/a	1901	n/a	n/a

FACILITY	LOCATION	SUFFICIENCY RATE	YEAR BUILT	ADT TOTAL	ADT YEAR
SH 53A	1.0 MI E. JCT SH 53	63.9	1936	200	2005
SH 53	1.4 MI E. COTTON C/L	54.3	1926	1300	2004

Source: ODOT

Appendix 2.21: Stephens County Off System Bridges

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
4.0 MI N SH 53	21.3	1979	250	2007	County
5.6 MI N OF Loco	37.9	1958	100	1999	County
.4S .3E Clear Creek	25.1	1950	200	1999	County
4 MI W 0.7 N OF Duncan	26.7	1948	381	1999	County
.1 SE Clear Creek Lake	18	1950	200	1999	County
4.0 MI E Lake Fuqua	43.3	1968	100	1999	County
4 MI W 0.9 N OF Duncan	17.7	1948	423	1999	County
0.7 MI E Comanche C/L	36.7	1955	100	1999	County
6.0 MI N SH 7	21.2	1955	100	1999	County
5.3 MI N OF Velma	62	1965	93	1999	County
3.9 MI E US 81	17.1	1973	389	1999	County
8.0 MI N 3.3 E Velma	33.9	1952	100	1999	County
0.5 MI E 2.6 N OF Bray	40	1950	100	1999	County
5.5 N 1.0 E Harrisburg	25.8	1956	100	1999	County
9 MI E 4 MI N Duncan	28.3	1937	399	1999	County
0.45 MI N OF Loco	80.4	1957	283	2015	County
6 MI W 3 MI S OF Velma	20.6	1938	121	1999	County
9 MI W 0.8 S OF Marlow	32.9	1960	81	2005	County
N.E. Lake Humphreys	41.3	1945	100	1999	County
3.2 MI E Clear Creek	42.5	1940	100	1999	County
0.5 MI W Velma	25.2	1940	158	2011	Municipal
1.0 MI N SH 7	19.6	1982	350	2002	County
3 MI W .5 MI N Bray	36.5	1976	183	1999	County
2.6 MI E OF US 81	49	1983	357	2012	County
4.0 MI N SH 53	80.4	1935	250	2012	County
4.0 MI N SH 53	54.4	1941	250	2012	County
1.5 N 1.9 E Duncan Lake	30.9	1946	100	2009	County
4 MI W 0.9 N OF Duncan	21.3	1948	381	2010	County
1.6N of JCT SH 7	-1	1901	542	2014	County
0.6 MI N Velma	20.5	1935	425	2009	County
1. W 2. N OF SH 7	48.4	1938	350	2002	County
2.2 MI E US 81	34.2	1940	389	2010	County
N2990E1750008	20.8	1960	425	2010	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
0.3 MI S Loco	76.5	1983	141	2012	County
1.5 MI W S EDGE Marlow	24.4	1978	580	2010	County
2.6 MI W OF US 81	23.4	1940	283	1999	County
6 MI N 0.5 MI W Alma	35.2	1935	282	1999	County
4.1 MI W OF US 81	23.4	1940	283	1999	County
4.1 E 3.8 S OF 81 & 7	20.7	1950	389	2008	County
3.0 MI S SH 53	24.3	1938	75	1999	County
7 MI W 0.4 S Marlow	22.9	1940	100	1999	County
.5S 6.2W SH 53 SH 89	39.3	1938	215	1999	County
N2990E1690007	30.6	1940	100	1999	County
1.6 MI N OF JCT SH 7	16.3	1950	542	2015	County
3 M N 13.6 E Duncan Lake	55.4	1989	50	2015	County
4.6 MI N Alma	29.8	1950	319	2015	County
0.3 MI S Hope	90.5	1993	550	2015	County
1.5W OF S. EDGE Marlow	91.3	2012	580	2015	County
1.8W 3N OF SH29	97	2005	50	2015	County
9W .8S OF Marlow	80.4	2007	81	2015	County
0.4 MI N OF Loco	80.1	1957	280	2015	County
4.0 MI S OF Corum	89	1975	458	2015	County
2.6E OF US 81	91.4	2014	357	2015	County
1.3 MI S OF Corum	85.6	1981	458	2015	County
1S OF SH53	77.4	2005	2004	2015	County
3.5S 7.7E JCT US 81/SH 53	100	2010	50	2015	County
4.5N, 2.5W OF SH53/SH89	95.8	2010	50	2015	County
6.1 MI N SH 53	30.6	1960	601	1999	County
N END Lake Humphreys	65.7	1983	463	1999	County
1.8 MI N OF JCT SH 7	74.7	1993	542	1999	County
9.7 MI W OF Velma	77.5	1925	904	2015	County
15.8 MI W OF Velma	74.3	1926	904	2015	County
15.3 MI W OF Velma	77.7	1926	904	2015	County
15.7 MI W OF Velma	59.3	1926	904	2015	County
4 MI W OF Velma	75.8	1927	1407	2015	County
8.0 MI N 3.3 E Velma	84.7	1993	75	2015	County
1.5 MI W Velma	91.9	1927	1407	2015	County
1.7 MI W OF Velma	27.4	1927	1407	2015	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
15.0 MI E 1 N Duncan	75	1938	184	2015	County
6 MI N 4 W OF Alma	87.1	1938	184	2015	County
9.9 MI W OF Duncan	84.2	1940	210	2015	County
9.2 MI W OF Duncan	80.1	1940	210	2015	County
9.0 MI N OF Duncan	84.2	1940	210	2015	County
4.0 MI N SH 53	84.7	1941	250	2015	County
4 MI S 10.2 E Duncan	86	1948	101	2015	County
N END Lake Humphreys	79	1998	463	2015	County
0.5 MI E 2.6 N OF Bray	98.4	1993	150	2015	County
N.E. Lake Humphreys	76.5	1993	463	2015	County
4N SH53	91.3	2009	250	2015	County
4.1E, 3.8S OF U.S 81	80.8	2010	389	2015	County
1.5N 1.9E OF Duncan Lake	97	2010	100	2015	County
5.0 MI S SH 7	54.5	1962	71	2015	County
12.2 MI E 1 N Duncan	56.5	1965	184	2015	County
2.6 MI E Duncan	73.4	1981	1102	2015	County
6.0 N 1.0 E Harrisburg	88	1981	150	2015	County
2.9 MIE Duncan	83.5	1983	1102	2015	County
7.4 MI W 1.0 N Duncan	88.7	1987	314	2015	County
7.2 MI W 1.0 N Duncan	94.3	1987	314	2015	County
2.1 MI S SH 7	85	1998	100	2015	County
1.8 MI N OF JCT SH 7	66.8	1993	542	2015	County
6 MI N 0.5 MI W Alma	95.2	1996	338	2015	County
4 MI W 0.7 N OF Duncan	71	1996	381	2015	County
4.0 M I W Marlow	70.6	1940	136	2015	County
2.2 MI E Clear Creek	47.3	1942	100	2015	County
5.3N OF Velma	83.3	2000	93	2015	County
1N OF SH7	96	2003	350	2015	County
1W 2N SH7	96	2003	350	2015	County
4.1W OF US 81	82.9	2002	283	2015	County
1.2 MI E US 81	94.4	1991	389	2015	County
3.2 MI E Comanche	98.9	1993	181	2015	County
4.3 MI W 0.9 S Marlow	74.7	1930	128	2015	County
6. E Clear Creek Lake	59.3	1938	100	2015	County
0.5 MI E 0.5 S OF Bray	86	1938	144	2015	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
12.0 MI E Bray	48.3	1939	100	2015	County
3.8 MI W S Edge Marlow	52	1940	328	2015	County
3.9 MI W S Edge Marlow	54.7	1950	328	2015	County
4W .9N OF Duncan	86.3	2012	381	2015	County
2.2E OF US 81	86.9	2012	389	2015	County
9 MI E 3.6 N OF Duncan	60.8	1963	398	2015	County
5 MI E & .5 N OF Bray	68.3	1965	316	2015	County
N2960E1640004	40.6	1978	291	2015	County
0.5 MI S Hope	97	1981	200	2015	County
.5 MI W OF Velma	97	2013	100	2015	County
9.3 MI W OF Velma	71.7	1925	904	2015	County
12.5 MI W OF Velma	80.6	1925	904	2015	County
3.2 MI E Clear Creek	70	2003	100	2015	County
4.0 MI E Lake Fuqua	56.3	1996	100	2015	County
.4S .3E Clear Creek	99	1996	200	2015	County
6 MI W 3 MI S OF Velma	97.5	1999	121	2015	County
.5S 6.2W SH 53 SH 89	99	1998	141	2015	County
0.3 MI S Clear Creek	50.4	1950	100	2006	County
1.0 MI NE Duncan Lake	93.9	1993	99	2015	County
5.5 N 1.0 E Harrisburg	93	1993	150	2015	County
8.0 MI W OF US 81	99.9	1987	306	2015	County
6.8 MI W 0.9 S Marlow	69.1	1987	128	2015	County
8.5 MI W OF Duncan	43.4	1940	210	2015	County
2.3E .5N OF Duncan	33.1	1940	500	2015	County
.8E US 81 2.9S SH 7	100	1993	200	1999	County
E1710N2750006	26.3	1950	100	1999	County
N2980E1820002	37.9	1958	100	1999	County
N2880E1780005	24.3	1950	100	1999	County
1. S 10. E OF US 81	43.6	1950	100	1999	County
N3050E1640009	36.9	1950	100	1999	County
5.8 W US 81 2.N SH 53	39.9	1950	75	1999	County
4 MI S SH7 8.7W OF 81	26.3	1950	100	1999	County
5. MI E 2.8S JCT US81 SH53	49.5	1950	50	1999	County
3.5 N 6.1 W OF US 81	36.9	1950	100	1999	County
5.1W 3.S 81 & 7	37.9	1950	100	1999	County
E1720N2970002	23.5	1950	100	1999	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
E1650N2890004	36.9	1950	100	1999	County
6.8E 2.5S JCT US 81 SH 53	48.1	1960	50	1999	County
4. W 3. N OF SH 53	40	1950	50	1999	County
7.6 E US 81 2.S SH 7	40.1	1950	35	1999	County
8. E 4.7 S OF US 81	41.8	1950	25	1999	County
2.S .6W SH7 IN Velma	48.1	1950	350	1999	County
3.3W 1.5N SH 53 SH 89	21.2	1950	100	1999	County
.5S .6E SH53 SH89	53.6	1950	50	1999	County
1.8 W 3.8 S OF US 81	19.6	1950	100	1999	County
2.7E US 81 2.5N SH 7	47	1950	100	2002	County
1.5 N 3.2 W OF SH 53	36.9	1950	75	1999	County
E1870N3010007	20.1	1950	100	1999	County
S.W. edge OF Alma	23.2	1950	350	1999	County
.5 S .6 W OF SH 53	24.3	1950	75	1999	County
1.5 S .4 W OF SH 53	39.9	1950	75	1999	County
2.4 W & 2.0 S JCT 76 & 29	32.1	1960	100	1999	County
N3010E1650004	31	1950	100	1999	County
N2880E1660001	34.9	1960	100	1999	County
N3050E1690003	24.3	1960	100	1999	County
BETWEEN 4 ST & 5 ST	2	1950	3000	1999	County
3. W 2.1 S OF US 81	30	1950	100	1999	County
1.5 S .9 E OF SH 53	29.4	1950	75	1999	County
2.S SH53 3.1W US81	38.9	1950	100	1999	County
2.1E OF Comanche C/L	62.6	1950	50	1999	County
N2920E1610002	24.9	1950	50	1999	County
3. E 2.3 S OF US 81	29.4	1950	90	2002	County
N2730E1770000	24.3	1950	100	1999	County
N2810E1770003	26.8	1950	100	1999	County
2.2E 1.N SH 7 IN Velma	33.3	1950	50	1999	County
1.2E US 81 2.S SH 7	31	1950	300	1999	County
1.5N 2.3E JCT 81 & 29	54.1	1950	100	1999	County
1.W .1N US 81 SH53	28.1	1950	250	1999	County
N2810E1830001	32.9	1950	100	1999	County
6.3W US81 2.N SH 53	39.9	1950	75	1999	County
N2770E1610008	24.5	1960	100	1999	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
E1620N2730008	71.2	1975	50	1999	County
E1800N2750005	35.4	1950	100	1999	County
1.N SH53 3.1W US81	49.3	1960	100	1999	County
E1620N2770007	47.1	1950	100	1999	County
.7E US 81 2.9S SH 7	99	1993	200	1999	County
E1745N2810007	24.5	1955	25	1999	Municipal
2. W .6 S OF US 81	33.4	1965	200	1999	County
6.W US81 1.7S SH53	36.9	1960	100	1999	County
N2750E1850001	24.3	1960	100	1999	County
10. E 2.6 S OF US 81	36.9	1975	100	1999	County
N2930E1840005	36.9	1978	100	1999	County
5.2E Lake FUQUA	21.7	1960	100	1999	County
.7S .2W SH7 C/L	21.2	1968	100	1999	County
E1745N2810003	32.9	1960	100	1999	Municipal
5.7E Lake Fuqua	28.4	1960	50	1999	County
1.S SH53 6.9W US81	40.2	1960	150	1999	County
2. W .8 N OF US 81	28.9	1950	300	1999	County
6.3 W & 2.0 N JCT 76 & 29	39.9	1960	100	1999	County
.5E OF US 81	83.4	1923	2500	2015	County
.5E OF US 81	73.3	1923	2500	2015	County
.2E 3.5S OF 81 & 7	83.4	1923	2500	2015	County
.4E OF US 81	83.3	1923	2500	2015	County
2.6S OF SH 7	49.1	1923	2500	2015	County
.6E SH7 IN Velma	36	1925	500	2015	County
11.E .5S JCT US81 SH53	85.7	1947	100	2015	County
4.5 N .6 E OF SH 53	80.8	1950	100	2015	County
4. W 3.6 N OF SH 53	61.2	1950	50	2015	County
10.7E 2.5S JCT US81 SH53	20.6	1908	100	1999	County
9.1W US 81 6.N SH 53	37.8	1930	224	1999	County
3.2 MI E Comanche	40.8	1928	74	1999	County
9.2W US 81 6.N SH 53	40	1930	224	1999	County
4 MI S 1.9 W Comanche	31.9	1930	100	1999	County
1.0 MI NE Duncan Lake	19.9	1925	602	1999	County
8. W .1 N OF US 81	28.6	1950	328	1999	County
4. W 1.8 N OF SH 7	51.7	1950	50	1999	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
1.8 W 3.0 N OF SH 29	40	1975	50	2004	County
2.2W&2N JCT US81&SH7	15	1989	200	2004	County
1.5 S .5 W OF SH 53	36.9	1950	100	1999	County
4.5N 4.7W SH 53 SH 89	55.4	1950	50	2002	County
N2770E1610002	21.9	1950	50	2009	County
N2940E1630001	40.9	1950	100	2009	County
1.5N 3.5W OF US 81/SH 29	-1	1901	100	2010	County
5.6W US 81 5.N SH 53	48.5	1950	120	2011	County
9.9E 2.S US 81 SH 7	49.8	1950	350	2012	County
3. E 1.4 N OF SH 7	57.5	1950	100	2012	County
E1700N3010008	71	1950	100	2012	County
2.4W US 81 3.N SH53	69	1960	100	2012	County
3. E .1 N OF US 81	45.4	1970	25	2012	County
7.1W US 81 6.N SH 53	21.4	1950	224	2012	County
9. E 2.7 S OF US 81	31	1950	50	2011	County
E1700N3010006	43	1950	100	2011	County
7.0 MI W OF US 81	23.3	1950	75	2012	County
2.W 1.M S OF Bray	84	1950	50	2012	County
3.5 W 1.3 N OF Bray	70	1950	100	2012	County
1.6E COUNTY LINE	85	1951	50	2012	County
5.3 N .1 W OF SH 7	63.7	1968	25	2012	County
8.5W US 81 5.N SH 53	82	1950	100	2012	County
2.5 MI E OF US 81	32.9	1950	261	2014	County
2.5 MI E OF US 81	66	1950	100	2012	County
6.5 MI W OF US 81	80.5	1950	100	2012	County
3. E 1.6 N OF SH 7	96	1950	100	2012	County
4. W 1.3 N OF SH 7	70	1950	50	2012	County
8.5 MI W OF US 81	74.5	1950	31	2012	County
8.8E 4.S US81 SH7	79.5	1950	50	2012	County
8.0 MI W OF US 81	32.3	1950	100	2014	County
2. N 3.1 E OF SH 7	39.5	1950	100	2010	County
3.6E US 81 3.N SH 53	56.3	1986	100	2006	County
6.8W US 81 6.S SH 7	27.8	1950	100	2006	County
2.5 MI E OF US 81	38.9	1950	100	2006	County
3.9W 4.5N SH 53 SH 89	44.5	1993	50	2007	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
4S 2W of Comanche	-1	1901	37	2014	County
E1630N2800008	31.3	1940	200	2008	County
1.2E US 81 2.S SH 7	97	1995	60	1999	County
2W 3.25S Velma	34	1950	25	2009	County
3. W 3.4 S OF US 81	40.8	1950	100	2009	County
5.6 N 3. E OF SH 7	28.4	1950	50	2009	County
3. E 3.3 S OF US 81	33.9	1950	100	2009	County
8.5 MI W OF US 81	44	1950	31	2010	County
4.S 5.4W OF US 81	50.5	1950	100	2009	County
3.5W 2.S SH7 @ Velma	48.4	1960	50	2010	County
5.0 MI W OF US 81	38.9	1960	100	2010	County
7.8W 4.5N SH 53 SH 89	40.9	1975	74	2009	County
5.5S 2.1W JCT81 SH53	40.8	1970	50	2012	County
9. E 4.2 S OF US 81	68	1950	50	2012	County
3. E 1.1 N OF SH 7	38.9	1950	100	2014	County
8. E 2.2 S OF US 81	55	1950	50	2012	County
3.5 MI W OF US 81	68	1960	60	2012	County
2.S 5.5E US 81 SH 7	69	1965	50	2012	County
E1610N3020002	82	1960	50	2011	County
2. E .4 N OF US 81	41.9	1965	150	2014	County
9. W 3.2 S OF US 81	69.2	1970	50	2012	County
6.5 MI W OF US 81	51	1970	60	2012	County
3. S 2.6 E OF US 81	42.2	1970	150	2014	County
3.1 N 3.5 W OF SH 7	82	1983	100	2012	County
8.7W US81 3.N SH 53	95	1986	50	2012	County
3.0 MI E OF US 81	84	1950	100	2011	County
N3010E1620002	96	1960	100	2011	County
1.N 2. W OF Bray	95	1960	100	2011	County
2.6 MI E OF US 81	23.9	1950	50	2011	County
E1620N2910006	69	1975	50	2012	County
4.6W US 81 3.N SH 53	29.4	1950	75	2010	County
0.3 MI S HOPE	50.1	1940	100	1999	County
3. E 1.2 N OF SH 7	22.8	1950	100	2007	County
3 MI S 4.5 W OF Duncan	18.9	1940	283	1999	County
8.2W 1.S 81 & 7	33.3	1940	328	1999	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
.5 SE Lake Humphreys	33.2	1940	366	1999	County
N3050E1690008	47.8	1940	100	1999	County
N2960E1810005	24.3	1940	100	1999	County
E1850N2740005	31.9	1940	100	1999	County
8.4E 2.S US81 SH 7	48	1960	50	2015	County
5.6N 3E OF S.H. 7	97	2010	50	2015	County
3E 3.3S OF US 81	96	2011	100	2015	County
3W 3.4S OF US 81	96	2011	100	2015	County
4S 5.4W OF US 81	96	2011	100	2015	County
1.5 N 5.4 W SH29/US81	73	2000	100	2015	County
2.6W 1N JCT 81/7	77.2	2001	50	2015	County
2W .4N OF US81	59.2	2002	300	2015	County
1.2S OF SH29	75	2001	150	2015	County
.7N 3E OF SH29	80.2	2002	50	2015	County
3. W .5 N OF US 81	92.4	1987	409	2015	County
E1630N2780002	89	1987	100	2015	County
E1670N2950005	81.5	1988	140	2015	County
N2940E1620004	95.1	1991	200	2015	County
5.1MI E Lake Fuqua	52.6	1989	50	2015	County
2N & 1.9 E JCT SH7 & US81	85	1990	100	2015	County
4.5S .8E US81 SH53	41	1986	101	2015	County
3.S153 2.7W US81	96	1987	200	2015	County
1.2 MI W SH 53A	56.6	1988	181	2015	County
2.1E US81 4.N SH 53	51.3	1988	200	2015	County
2.2 MI E OF US 81	71.8	1990	50	2015	County
6.8W 1.N JCT US81 SH53	94.8	1990	100	2015	County
.3 MI W OF US 81	85.7	1990	375	2015	County
6W 2.7S OF US81/SH7	79	2004	50	2015	County
2S 2.5W OF 81 & 7	81.8	2004	100	2015	County
2.2W 2N JCT US81/SH7	78.5	2004	200	2015	County
7.1 E 4. S OF US 81	67.6	1991	100	2015	County
6.6 E 4. S OF US 81	48.8	1950	100	2015	County
4.S SH7 8.5W OF US 81	38	1950	50	2015	County
9.7E 4.S US81 SH7	47.3	1950	100	2015	County
3. S 1.4 E OF SH 7	32.9	1950	100	2015	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
6 E 1.3 S OF US81/SH53	75.5	1999	81	2015	County
5 E 2.8 S OF US81/SH53	89	1999	50	2015	County
.3S SH53 3W US81	100	2003	100	2015	County
3.0 MI W OF US 81	84.1	1990	100	2015	County
2.N .8W 81 & PLATO RD	99	1991	200	2015	County
1.9 MI S OF SH 29	95.1	1993	150	2015	County
1N, 6W OF Marlow	100	2011	50	2015	County
.9N OF SH 29	97	2011	100	2015	County
3W.1N OF Marlow	80.2	2006	200	2015	County
8.4W 1S JCT 81 / 7	70.8	1991	100	2015	County
1.5N OF SH 7 1W OF US81	85.5	2009	50	2015	County
1.6W OF US 81	84.2	2009	200	2015	County
5.6S 5.5E US 81	81.8	2010	50	2015	County
4.9 MI W SH 53A	93.4	1967	181	2015	County
4.0 MI W OF SH 53	73.8	1991	50	2015	County
5.S SH53 7.4W US81	90.3	1976	600	2015	County
1S .6E OF Grady C/L	100	2013	50	2015	County
3.5S .7E JCT US81 SH53	82.3	1980	100	2015	County
.5S .6E JCT SH53/SH89	84.8	2002	50	2015	County
4W 3N OF SH53	91.1	2001	50	2015	County
4.5N 4.7W S.H. 53/S.H. 89	73.8	2004	50	2015	County
4.5N 7.6W S.H. 33/S.H. 89	96	2004	74	2015	County
7E 3,5N OF JCT US81/SH53	100	2006	25	2015	County
4 MI S 2 W OF Comanche	71.8	1984	37	2015	County
3.2W US 81 2.N SH 53	94.4	1985	300	2015	County
1.7E US81 3.N SH 53	85.8	1985	200	2015	County
3.9W, 4.5N OF SH-53/SH-89	100	2007	50	2015	County
3.6E US81/3N/SH53	96	2007	100	2015	County
1.5E .8N OF JCT US81 SH53	81.8	2009	100	2015	County
8E, 4.7S OF US 81	94.6	2009	25	2015	County
5.5 MI W OF US 81	30.4	1950	50	2015	County
3.1W OF US 81	64.1	1950	100	2015	County
6.1W OF US81	45.5	1950	24	2015	County
3.W US81 2.7S SH53	77.7	1996	175	2015	County
4.7S 10.1W JCT7-Carter C/L	73.7	1996	100	2015	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
1.N SH53 3.1W US81	100	1997	100	2015	County
1.S SH53 6.9W US81	79.2	1998	150	2015	County
3.5 MI E OF US 81	78.9	1998	100	2015	County
1. S 10. E OF US-81/SH-53	100	2001	100	2015	County
1.S SH53 2.6W US81	100	2002	100	2015	County
E1820N2760001	35.9	1960	100	1999	County
BETWEEN 5 <sup>TH</sup> & 6 <sup>TH</sup>	20.3	1960	983	1999	Municipal
E1610N2730008	20.1	1970	100	1999	County
2.5 MI N OF SH 7	20.1	1960	100	1999	County
4 M W 2.4 M N JCT 7&81	27.7	1950	42	1999	County
8.3W 2.S 81 & 7	39.8	1960	50	1999	County
.3S SH53 6W US81	40.9	1960	100	1999	County
N2740E1640006	65.2	1964	100	1999	County
4.2E 1.5S JCT US810 & SH53	24.3	1960	100	1999	County
3.9W 4.5N SH 53 SH 89	44.1	1950	50	1999	County
3. E .1 N OF US 81	45.2	1960	150	1999	County
3.3 MI E OF US 81	35.9	1960	100	1999	County
0.3 MI E OF US 81	20.8	1950	100	1999	County
8.6W OF Marlow	47.6	1950	100	1999	County
4.5N 7.6W SH 53 SH 89	39.9	1975	74	2002	County
2. S 2.5 W OF 81 & 7	86	1984	100	2002	County
3. W .1 N OF Marlow	25.7	1950	200	2004	County
1.8 W 3.8 S JCT US81/SH7	18.8	1950	50	1998	County
2.6E US81 1.7S SH 7	36.9	1945	100	2004	County
3.7W OF US 81	47.3	1960	100	2004	County
6. W 2.7 S OF 81 & 7	48.4	1950	50	2002	County
3.5 MI E OF US 81	40.3	1986	100	1999	County
3. E 2.6 N OF SH 7	44.3	1950	100	2004	County
.7 N 3. E OF SH 29	25.9	1985	50	1999	County
3.3E US 81 4.N SH 53	52.7	1987	200	1999	County
1.S SH53 2.6W US81	29.4	1984	100	1999	County
2.6W 1.N JCT 81 & 7	29.4	1975	50	1999	County
.3S SH53 3.W US81	47.8	1988	100	2002	County
8.0 MI W OF US 81	46.4	1950	100	2004	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
1.0 MI S OF SH 53	58.5	1990	50	2004	County
3.W US81 2.7S SH53	49.2	1985	175	1999	County
6. E 1.3 S OF 81 & 53	67.2	1993	81	1999	County
N2870E1720002	24.3	1950	100	1999	County
5.0 MI N OF SH 7	31.9	1950	100	1999	County
7.6 E US 81 2.S SH 7	37.2	1992	35	2004	County
N2730E1640005	39.9	1965	100	2005	County
E1700N3000005	22.8	1950	100	1999	County
1.5 N .9 E OF SH 53	25.3	1950	100	1999	County
E1880N3040004	29.4	1950	100	1999	County
1.2 MI S OF SH 29	21.6	1950	150	1999	County
1.9 MI S OF SH 29	49.6	1950	100	1999	County
2. W .4 N OF US 81	30.6	1950	300	1999	County
E1660N2930003	24.4	1950	50	1999	County
1.9E SH7 IN Velma	65.1	1925	500	2015	County
.3N .8W SH7 C/L	47.9	1925	100	2015	County
3.8E SH 7 IN Velma	84.7	1926	100	2015	County
1.5N 2.3E JCT 81 & 29	99	1998	141	2015	County
E1620N2730008	90	1998	50	2015	County
E1620N2770007	67.6	1998	100	2015	County
8.3W 2.S 81 & 7	96	1998	50	2015	County
5.0 MI N OF SH 7	92.9	1997	100	2015	County
N3010E1650004	87.5	1997	100	2015	County
2.5E US 81	70.9	2008	150	2015	County
3E & 1.2N OF SH7	86.5	2009	100	2015	County
4S SH7, 6.5W US81	95.9	2009	50	2015	County
2.8E 0.8N SH7 IN Velma	96.9	2009	60	2015	County
.6N OF Velma	97.7	2011	425	2015	County
.4 N OF Velma	97	2011	344	2015	County
8E, .9S OF US 81	93.1	2009	50	2015	County
6.5W OF US 81	93.8	2009	60	2015	County
3.3W OF US 81	97	2010	100	2015	County
8.5W, 6.2N OF US 81	97	2010	100	2015	County
1.9W OF US 81 3N OF SH 53	97	2010	100	2015	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
7W 6.3S OF US81/SH7	100	2012	100	2015	County
5.6W 4.5 MI N. JCT US81/SH53	99	2012	120	2015	County
5.6E 2.S US 81 SH 7	55.2	1965	50	2015	County
2. S 8.8 E OF US 81	44	1965	50	2015	County
2.5 MI W OF US 81	47.6	1970	100	2015	County
5. E 2.7 N OF SH 53-SH65	52.4	1976	100	2015	County
4.S SH 7 6.3W OF US 81	98	1985	100	2015	County
2.3W OF US 81	81.2	1985	100	2015	County
3E 2.3S OF US 81	96	2004	90	2015	County
3.7W 2.2N OF JCT US81/SH7	100	2006	75	2015	County
6.0 S, 6.8W OF US-81/SH-7	100	2007	100	2015	County
6W OF US 81	100	2010	76	2015	County
5.1W 3.S 81 & 7	100	1996	100	2015	County
9.2W US 81 6.N SH 53	98.9	1997	224	2015	County
9.1W US 81 6.N SH 53	87.7	1997	224	2015	County
2.2E 1.N SH 7 IN Velma	84	1997	50	2015	County
1.8W 3.8S US81/SH7	45.8	2000	50	2015	County
2.5 W .6 S OF Bray	42.9	1950	100	2015	County
N2900E1610006	61.1	1950	24	2015	County
9.9E 2S OF US 81/SH 7	99.9	2002	350	2015	County
4W 3N OF TUSSY	99	2012	100	2015	County
3E .1N OF US 81	96	2014	25	2015	County
2.4W OF US81 / 3N OF SH53	100	2002	100	2015	County
7.1W OF US81 / 6N OF SH53	87.4	2013	224	2015	County
2E .4N OF US 81	91.5	2014	150	2015	County
2.5E OF US 81	86.9	2015	261	2015	County
3E 1.1N of S.H. 7	97	2015	100	2015	County
6 W. OF Duncan	100	2006	100	2015	County
2.5E US81,2.5N SH7	100	2004	100	2015	County
12N 1W OF JCT SH53/SH89	100	2005	100	2015	County
1.5 N .1 W OF SH 53	73.7	1991	100	2015	County
13. E 2.9 N OF US 81	85.1	1991	100	2015	County
8.2W US 81 1.S OF SH 53	91.1	1991	100	2015	County
.3S SH53 6W US81	84.7	1991	100	2015	County
2.S SH53 3.1W US81	100	1994	100	2015	County
S.W. EDGE OF Alma	57.6	1994	350	2015	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
6.3W US81 2.N SH 53	88.8	1993	75	2015	County
1.5 S .4 W OF SH 53	73.7	1994	75	2015	County
2.4N of SH 7	96	2015	100	2015	County
2.6E US81/1.7S SH7 Duncan	100	2006	100	2015	County
2. N 4.2 W OF US 81	85	1938	100	2015	County
3.5W 2S OF SH7/Velma	97	2011	50	2015	County
2N 3.1E OF SH 7	96	2011	100	2015	County
3S 2.6E of US 81	80.5	2016	150	2015	County
1.N 5.5W OF Bray	94.1	1960	100	2015	County
E1660N2920008	95.3	1960	100	2015	County
7N 2.6E OF Velma	96	2013	100	2015	County
4.6W OF US81 & 3N OF SH53	97	2011	75	2015	County
5W OF US 81	97	2012	100	2015	County
8.5W OF US 81	97	2011	31	2015	County
9E 2.7S OF US 81	87.5	2013	50	2015	County
1.5N 8W OF US81/SH7E	100	2016	100	2015	County
2.6E OF US 81	85	2013	50	2015	County
2W 3.25S OF Velma	90.1	2011	25	2015	County
7.8W 4.5N OF SH53/SH89	93.1	2010	74	2015	County
5.5S 2.1W OF JCT US81/SH5	95	2014	50	2015	County
3.9E SH 7 IN Velma	84.7	1925	100	2015	County
4 M W 2.4 M N JCT 7&81	70.1	1993	42	2015	County
3. W 2.1 S OF US 81	79.2	1993	100	2015	County
2. W .6 S OF US 81	54.8	1993	200	2015	County
.5 SE Lake Humphreys	79.7	1993	372	2015	County
N3050E1690008	89.9	1994	100	2015	County
2. W .8 N OF US 81	95.9	1996	300	2015	County
6.3 W & 2.0 N JCT 76 & 29	96	1995	100	2015	County
8.6W OF Marlow	85.1	1995	100	2015	County
2.4 W & 2.0 S JCT 76 & 29	84.7	1996	100	2015	County
8.2W 1.S 81 & 7	66.2	1996	328	2015	County
N2740E1640006	74.1	1995	100	2015	County
1.2E US 81 2.S SH 7	85.8	1995	60	2015	County
0.3 MI E OF US 81	85.8	1995	100	2015	County
.7E US 81 2.9S SH 7	99	1993	200	2015	County

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
.8E US 81 2.9S SH 7	55.9	1993	200	2015	County
4.5S .8E of US 81/SH 53	-1	1901	100	2012	County
1.S .2W 81 & 7	38.9	1950	100	2015	Municipal
4TH STREET & BEECH AVE.	99.8	2007	1654	2015	Municipal
6.0 MI W OF US 81	25.9	1987	50	2008	County
8.5 N 1. W OF US 81	51.5	1991	50	2008	County
1.5E .8N JCT US81 SH53	39.9	1950	100	2007	County
8.4W 1.S JCT 81 & 7	57.5	1991	100	2007	County
4.S SH 7 6.5W OF US 81	28.5	1950	50	2007	County
8. E 4.7 S OF US 81	26.5	1998	25	2008	County
4.5N 2.5W SH 53 SH 89	45.7	1984	50	2008	County
2.8E .8N SH 7 IN Velma	44.4	1950	60	2007	County
8.5 W 6.2 N OF US 81	25.8	1940	100	2008	County
4.5S 7.7E JCT US81 SH53	47.5	1940	50	2008	County
8. E .9 S OF US 81	27.2	1950	50	2008	County
3.3 MI W OF US 81	46.8	1950	100	2008	County
5.6 S 5.5 E OF US 81	32.6	1960	50	2008	County
6.5 MI W OF US 81	37.9	1960	60	2008	County
1.9W US81 3.N SH 53	47.4	1960	100	2008	County
1.MI N. 1. MI W. US 81 & Plato Rd.	100	1989	100	2015	County
3.5 M W 2 M N Velma	66.3	1990	75	2015	County
3.5 N 6.1 W OF US 81	100	1994	100	2015	County
2.5 N 6.5 W OF 81 & 53	88.7	1994	100	2015	County
7.3N&4.5W SH-7 STE/Carter C/L	91.5	1995	137	2015	County
4.5W 1.N OF Bray	92.9	1984	182	2015	County
5.7 MI W US 81	99	1985	50	2015	County
2.4 MI N OF SH 7	37.9	1950	100	2014	County
100FT W US81 Duncan	57	1960	3461	1999	Municipal
0.8 MI W OF JCT US 81	83.8	1969	3461	2015	Municipal
0.2 MI E OF JCT US 81	61.4	1969	2500	2015	Municipal
BETWEEN 3RD & 4TH ST	84.3	1970	2500	2015	Municipal
0.1 MI W US 81	86.5	1978	4608	2015	Municipal
0.6 MI W US 81	86.5	1978	4608	2015	Municipal
0.5 MI E OF 5 ST	84.6	1979	1130	2015	Municipal

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
100FT W US81 Duncan	96	1995	6900	2015	Municipal
0.9 MI E US 81	78.7	1960	1000	2015	Municipal
0.4 MI E OF JCT US 81	18.4	1965	4224	1999	Municipal
0.2 MI N BOIS D'ARC	21.4	1965	1932	2007	Municipal
.2N OF BOIS D ARC	96.7	2009	1932	2015	Municipal
.7N .4E 1N OF HOPE	92.1	2010	200	2015	Municipal
0.8 MI W OF US 81	35.9	1978	100	2002	Municipal
1.2 MI E OF US 81	66.8	1920	922	2005	Municipal
0.2 MI N Velma	76.8	1926	3867	2015	Municipal
0.9 MI E OF US 81	39	1950	444	2015	Municipal
0.8 MI E OF US 81	96.9	1940	432	2015	Municipal
BRTW 2ND & 4 ST	74.4	1957	1961	2015	Municipal
0.1 MI W OF US 81	73.2	1954	3026	2015	Municipal
0.7 MI E OF JCT US 81	83.1	1972	2589	2015	Municipal
0.5 MI E OF JCT US 81	83.6	1998	6900	2015	Municipal
.8W OF US 81	85.8	2003	100	2015	Municipal
.7N .4E 1N OF HOPE	39.9	2000	200	2008	Municipal
1.2 MI E OF US 81	29.8	1960	300	2007	Municipal
1.2E OF US 81	97	2009	300	2015	Municipal
0.1 MI W OF US 81	79.7	1954	1878	2015	Municipal
BETWEEN 3 <sup>RD</sup> & 5 <sup>TH</sup> ST AND US 81	85.7	1940	150	2015	Municipal
0.1 MI W OF US 81	84.7	1958	500	2015	Municipal
0.1 MI W OF US 81	73.2	1958	3000	2015	Municipal
BETWEEN 4 <sup>TH</sup> & 5 <sup>TH</sup> ST	81.7	1960	300	2015	Municipal
BETWEEN 5 <sup>TH</sup> ST & 3 <sup>RD</sup>	28.5	1960	150	2015	Municipal
4 ST & BEECH AVE.	52.5	1960	1654	2006	Municipal
BETWEEN 5TH & 3RD	-1	1901	150	2010	Municipal
.7E 1.N SH 7 IN Velma	31.3	1986	200	2014	Municipal
.1E .2N of US81/SH53	96	1960	100	2015	Municipal
BETWEEN 3 <sup>RD</sup> & 4 <sup>TH</sup> ST	21.1	1960	300	2004	Municipal
ON SPRUCE AVE BET WEEN 3 <sup>RD</sup> & 4 <sup>TH</sup> ST	23.3	1960	300	2004	Municipal

LOCATION	SUFFICIENCY	YEAR BUILT	ADT TOTAL	ADT YEAR	OWNER
.7E 1N IN Velma	91.4	2014	200	2015	Municipal
.4W .1N OF US81/US53	97	2010	100	2015	Municipal
BETWEEN 4 <sup>TH</sup> & 5 <sup>TH</sup> ST	40.8	1940	400	2015	Municipal
0.1 MI W OF US 81	78.6	1954	2268	2015	Municipal
BETWEEN 3RD AND 4TH ST.	85.7	2004	300	2015	Municipal
1.2E OF US 81	84.6	2006	922	2015	Municipal
5TH & PECAN AVE	81.7	1984	400	2015	Municipal
BETWEEN 3RD AND 4TH ST.	85.7	2004	300	2015	Municipal
BETWEEN 5 <sup>TH</sup> & 6 <sup>TH</sup> ST.	49.9	1940	983	2015	Municipal
BETWEEN 3 <sup>RD</sup> & 5 <sup>TH</sup> ST	55.7	1940	150	2015	Municipal
BETWEEN 3 <sup>RD</sup> AND 4 <sup>TH</sup> ST	71.7	1940	250	2015	Municipal
.4W .1N US 81/US 53	45.2	1930	100	2008	Municipal

Source: ODOT

#### Appendix 2.22: National Highway Freight Network - Oklahoma

The NHFN includes the following subsystems of roadways:

- Primary Highway Freight System (PHFS): This is a network of highways identified as the most critical highway portions of the U.S. freight transportation system determined by measurable and objective national data. The network consists of 41,518 centerlines miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads.
- Other Interstate portions not on the PHFS: These highways consist of the remaining portion of Interstate roads not included in the PHFS. These routes provide important continuity and access to freight transportation facilities. These portions amount to an estimated 9,511 centerline miles of Interstate, nationwide, and will fluctuate with additions and deletions to the Interstate Highway System.
- Critical Rural Freight Corridors (CRFCs): These are public roads not in an urbanized area which provide access and connection to the PHFS and the Interstate with other important ports, public transportation facilities, or other intermodal freight facilities.
- Critical Urban Freight Corridors (CUFCs): These are public roads in urbanized areas which provide access and connection to the PHFS and the Interstate with other ports, public transportation facilities, or other intermodal transportation facilities.

Primary Highway Freight System (PHFS) Routes						
	START ROUTE No POINT	END POINT	LENGTH (MILES)			
Creek Type	I44	U75	4.9			
I240	I44	I35	4.61			
I244	OK3R	I44	3.52			
I35	TX/OK Line	OK/Ks Line	236.13			
I40	TX/OK Line	I35	151.76			
I40	I35	OK/AR line	177.96			
I44	I240	4.68 Miles North of I40	7.92			
I44	I35	OK/MO Line	194			
U412	OK6P	I44	6.4			
Subtotal			787.19			

PHFS Intermodal			
Connectors			
FACILITY ID	FACILITY NAME	FACILITY DESCRIPTION	LENGTH (MILES)
OK2L	Williams Pipeline Station	21st St. (33rd W. Avenue to Burlington Northern RR at 23rd St.)	1.27
OK3R	Burlington Northern Railroad	23rd St. (BN Terminal to Southwest Avenue) SW Avenue (23rd St. to I-244 ramp.)	0.56
OK5P	Port of Catoosa	SR 266 (Port to US 169)	11.42
OK6P	Johnston's Port 33 (Verdigris River near Muskogee)	From US 412/NS 414, south 0.25 miles, east 1 mile to Terminal	1.14
Subtotal			14.39
PHFS TOTAL			801.58

Interstate Not on the PHFS			
ROUTE No.	START POINT	END POINT	LENGTH (MILES)
I235	I40	I44	5.14
I240	I35	I40	11.68
I244	S. 21st St.	I44	12.24
I44	TX/OK Line	I240	114.91
	0.35 miles S. of		
I44	S66	I35	7.7
I444	I244 S	I244 N	2.5
Subtotal			154.15

Appendix 3.1: Stephens County 2040 Population and Employment Projection by TAZ

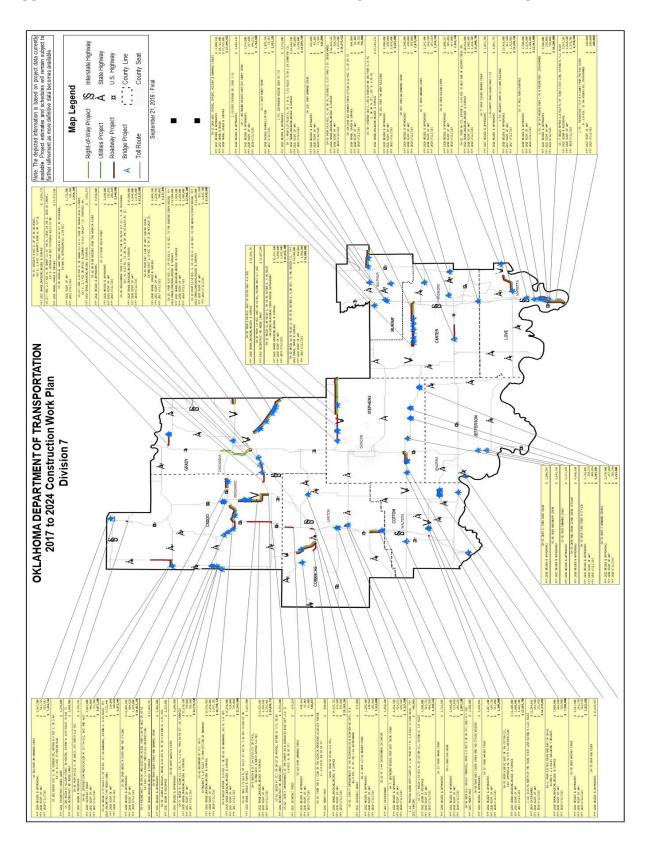
TAZ NO.	2010 POPULATION	2040 POPULATION PROJECTION	2040 EMPLOYMENT PROJECTION
1	868	900	115
2	730	800	185
3	129	300	65
4	611	700	115
5	471	471	75
6	851	900	125
7	677	725	345
8	316	425	35
9	131	300	65
10	587	1000	105
11	525	800	15
12	602	800	75
13	701	745	65
14	280	350	35
15	945	945	35
16	870	1000	600
17	827	827	300
18	91	91	325
19	593	600	45
20	783	800	65
21	514	750	110
22	1064	1064	45
23	481	485	75
100	619	750	75
101	714	714	250
102	880	1000	164
103	309	309	600
104	528	528	35
105	484	484	300
106	651	800	135
107	632	700	135
200	581	625	145
300	869	869	125
301	736	800	185
400	529	700	900
401	31	31	700

TAZ NO.	2010 POPULATION	2040 POPULATION PROJECTION	2040 EMPLOYMENT PROJECTION
402	326	375	105
403	78	125	105
404	659	750	185
405	803	803	15
406	718	800	195
407	297	800	135
408	1062	1062	395
409	869	869	1085
410	726	726	685
411	596	600	145
412	979	979	225
413	663	663	0
414	736	736	0
415	721	721	0
416	638	675	125
417	569	569	105
418	344	385	0
419	618	635	125
420	96	96	300
421	690	690	0
422	706	706	585
423	64	64	1200
424	821	821	245
425	823	900	35
426	102	339	95
427	915	915	55
428	418	800	185
429	719	800	145
430	577	600	155
431	79	79	1100
432	642	642	400
433	569	569	85
434	605	650	75
435	471	471	800
436	404	404	400
437	795	795	400
438	209	209	800
439	548	548	445
440	88	88	205

TAZ NO.	2010 POPULATION	2040 POPULATION PROJECTION	2040 EMPLOYMENT PROJECTION
441	25	25	385
442	489	600	85
443	678	678	85
444	2	2	600
445	188	188	500
446	0	0	1000
447	13	13	325
448	129	129	500
449	0	0	425
450	571	571	600

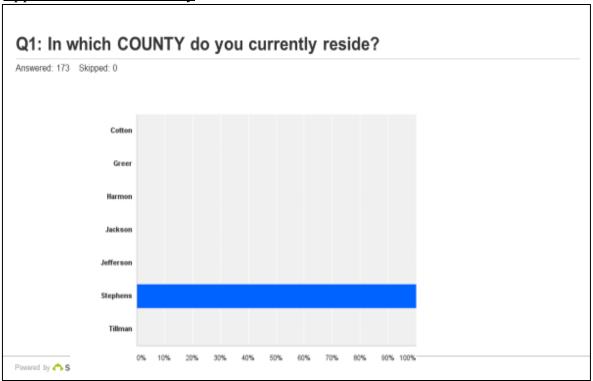
Source: SORTPO, US Census

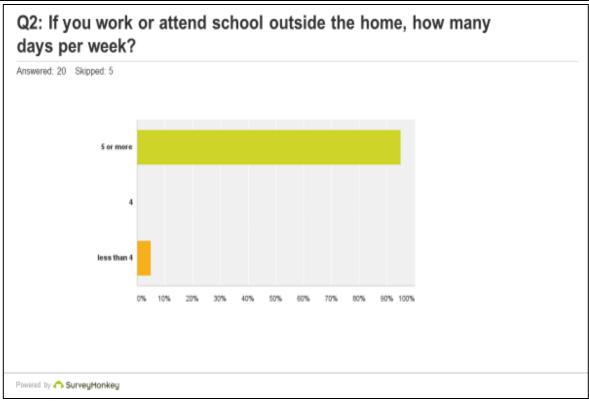
# Appendix 3.2 ODOT 8 Year Construction Work Program FFY 2017-2024 Map

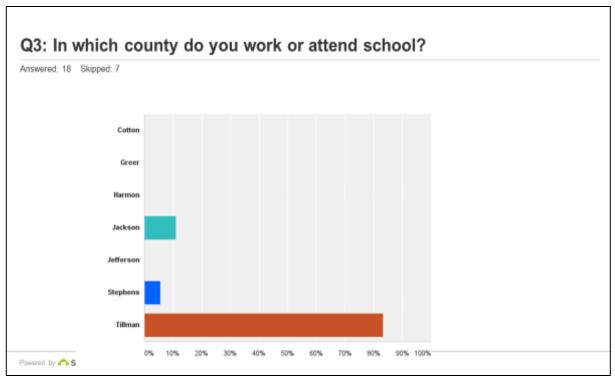


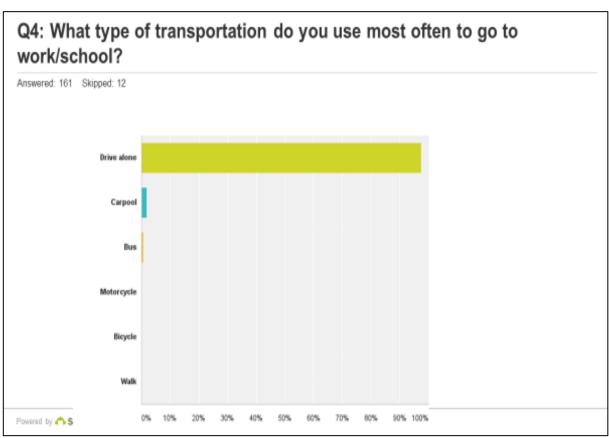
# Appendix 4: Public Participation.

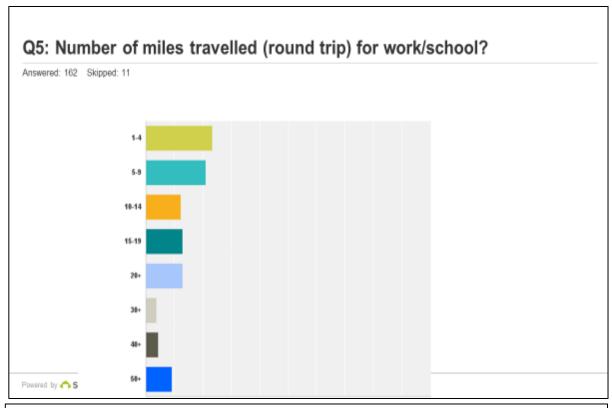
Appendix 4.1: Public Survey

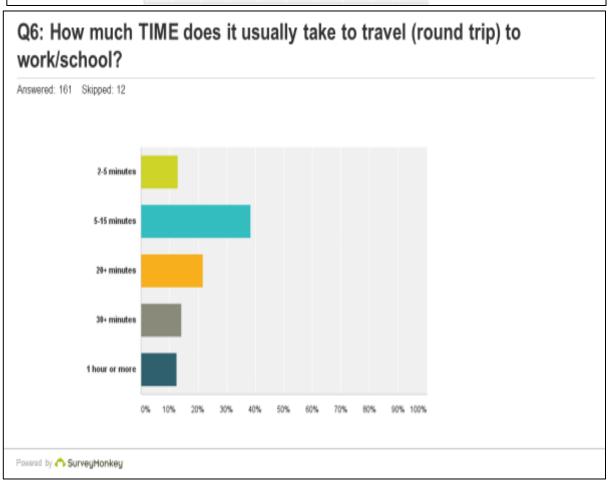


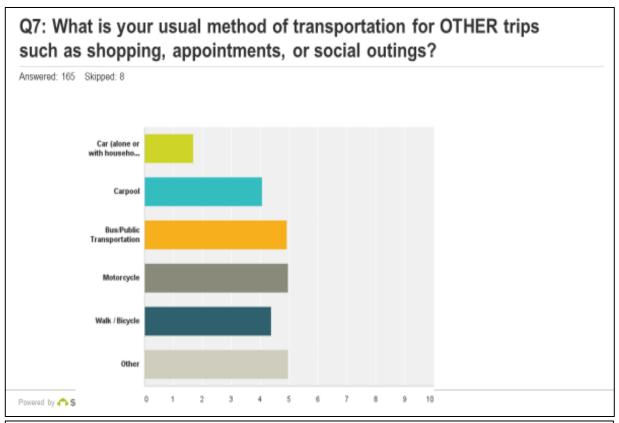




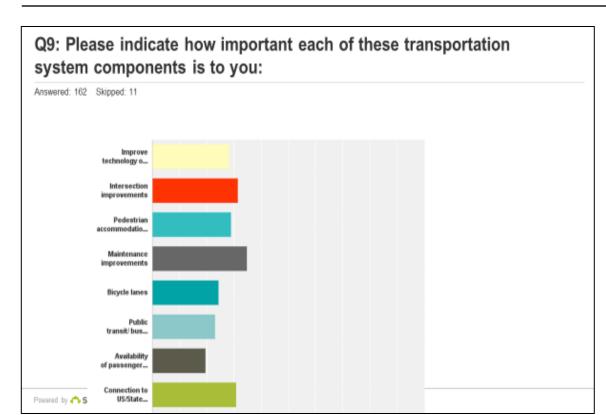


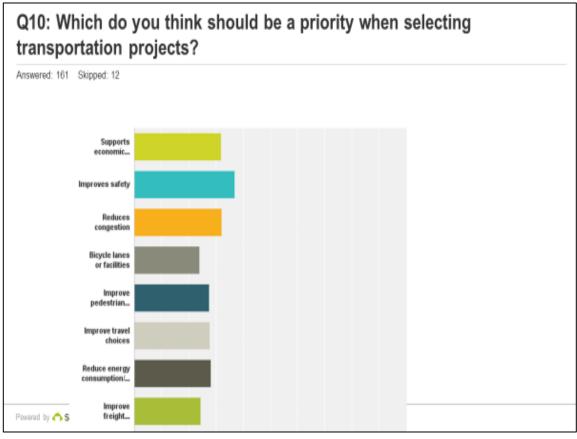












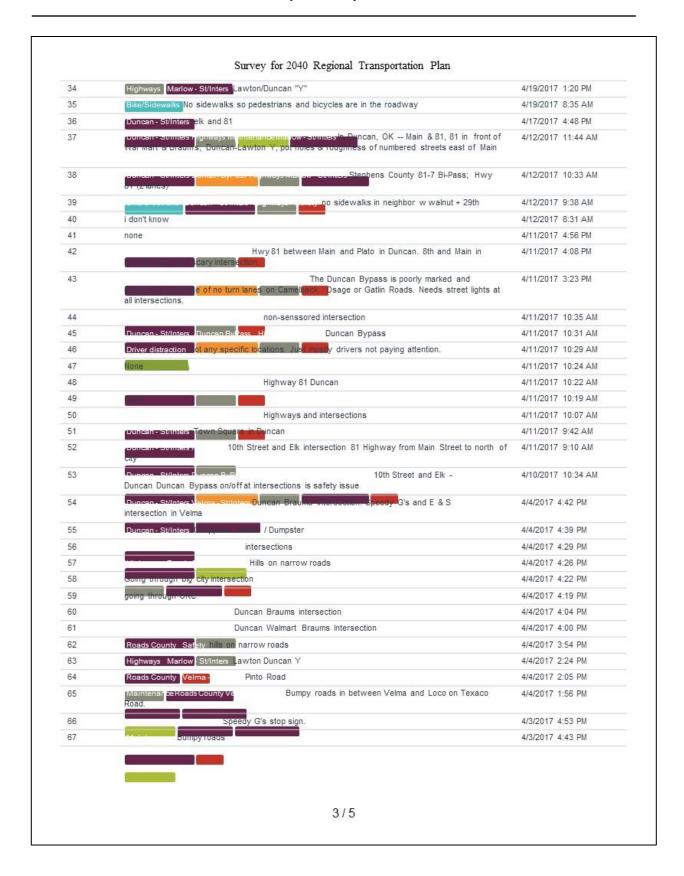
#### Survey for 2040 Regional Transportation Plan

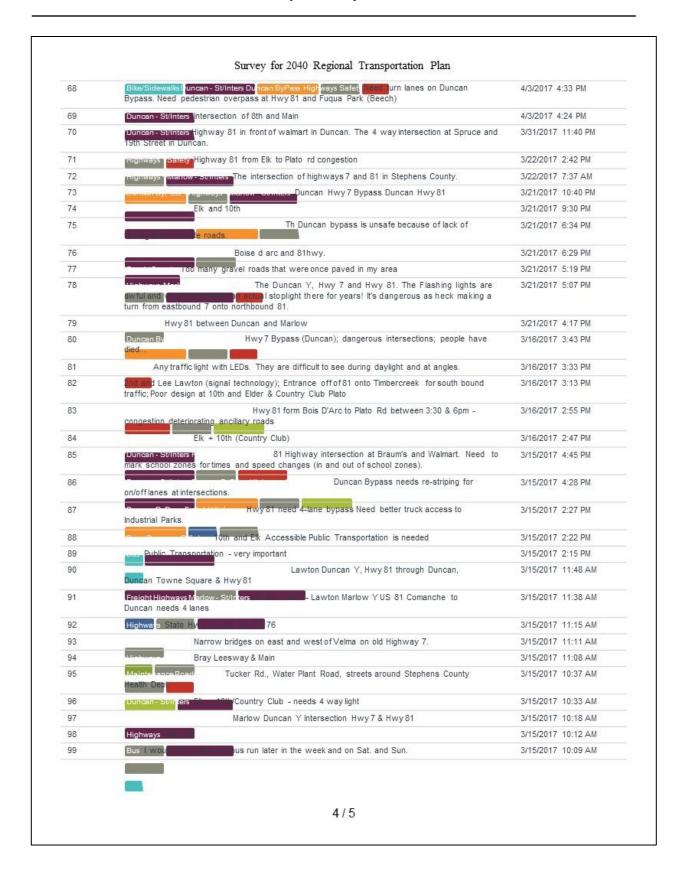
# Q11 What are some specific locations with traffic problems that you encounter?

Answered: 116 Skipped: 58

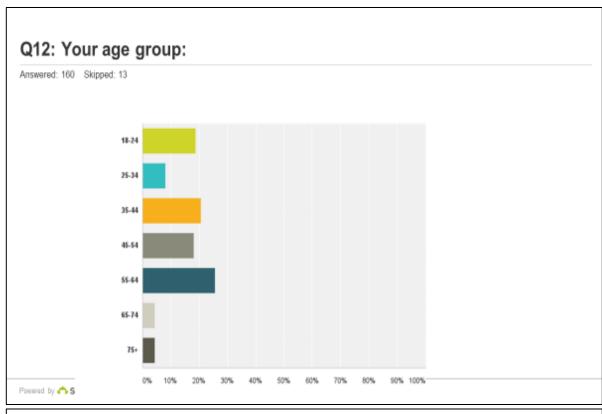
#	RESPONSES	DATE
1	I-44 TO OKC AND HWY 7 TO I-35 HWY 29 NEEDS WIDENING	5/21/2017 11:40 PM
2	Ouncan-St/Inters Unioan ByPass Fr light Ma Internance Nosi pulders United lanes on all intersections on the Duncan Bypass (Osage and Gatlin Roads). Speed limits signs posted midway on the Duncan Bypass. Used to have them between Elk and Plato but after road construction a couple years back they were never replaced. I would think that completing the four lane between Duncan and I-35 would be nice for economic growth for Duncan. Highway 29 east of Marlow needs all kinds of improvements. Shoulders to the highway all the way to I-35 would help.	5/2/2017 8:47 AM
3	Duncan - St/Inters Highways Elk and Hwy 81	5/1/2017 4:02 PM
4	Duncan - St/Inters Highways Elk and 81	5/1/2017 3:14 PM
5	Duncan - St/Inters I uncan ByPass Highways Saf ty onto the Duncan Bypass. It's dangerous and needs an over/underpass.	4/30/2017 6:52 PM
6	Congestion Junean - St/Inters Highways Highway 81 especially from 4:30-6:00 pm. Very congested around Walmart area.	4/30/2017 2:21 PM
7	Duncan - St/Inters   reight H   hways Mar   ow- St/Inters Safet   heading   hway 81 and 7 intersection between Marlow and Duncan. It needs a traffic light to improve wait times for semi trucks, cars, and pickups. Also the area in front of the Balthrop salvage yard just across from the Chisholm Trail Casino. Lots of times there are semi trucks there on the side of the highway unloading and loading trailers in the outside lane of traffic.	4/26/2017 9:37 PM
8	Roads County Poor conditions on county roads	4/26/2017 12:14 PM
9	Highways Marlow-St/Inters Intersection of Highway 7 and 81 in Stephens county.	4/26/2017 8:40 AM
10	Metropolitin OKC area	4/25/2017 1:53 PM
11	CentralHigh-St/Inter Highways Intersection at 7mile and highway 7	4/25/2017 1:07 PM
12	Highways [arlow-St/Inters St fety y 7 turning South from the eastbound lanes and Hwy 7 turning north from Westbound lanes. No turn lane having to either pull on to shoulder and endure rumble strips which is illegal or stay in inside lane and hope and pray people are paying attention and doesn't rear end you.	4/25/2017 12:40 PM
13	Duncan - St/Inters Highways Highway 81 by Walmart	4/25/2017 12:11 PM
14	Duncan - St/Inters Highways Highway 81 from Plato to Main Street	4/25/2017 11:55 AM
15	CentralHigh-St/Inter uncan-St/Inters Fre int High ways state hwy 7 and 7 mile rd needs a turn lane going to Central High School, the Lawton Duncan Y needs a stop light there is times when there is several semi's waiting to cross and the wait is extremely long.	4/25/2017 11:50 AM
16	CentralHigh-St/Inter reight   phways Traveling west on Highway 7 and turning at 7 Mile Road! That intersection is greatly used by school traffic to Central High. I have encountered semi-trucks that will not or cannot move over and do not or will not slow down behind me. I fear for the safety of young drivers who do not look behind them in such situations. I was told by the Director of the ODOT in Duncan to "move over on the shoulder when that happens". There is a warning strip up to the intersection. Why should we have to move over onto the shoulder and ruin the alignment of our vehicles? There should have been a turn lane constructed there years ago.	4/25/2017 11:39 AM

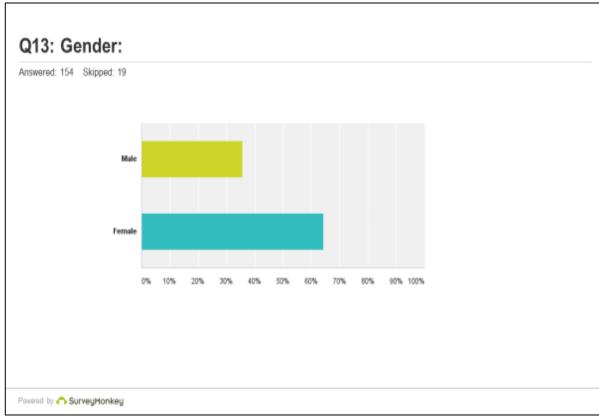
17	getting on to the Duncan bypass when it is dusk or dark. There really needs to be a street light to illuminate that intersection. It's very difficult to see where to turn onto the bypass. The county roads are in horrible shape. Most need to be widened, especially Camelback, west of the bypass up to atl least 7 mile road. There is a lot more traffic on that section of road than a lot of people realize. Also, 7 mile road, north of Camelback up to HWY 7. When vehicles meet each other one or both must drive partially on the edge of the road/ditch which kicks up loose gravel rocks, which crack windshields. (I have personally had this happen to my vehicle several times.) 58th street between Bois d' Arc & Beech is a constant problem with pot holes. They get so big & there are so many it's difficult to miss them all. Hitting one can and has caused vehicle damage. The intersection at Camelback and 76th (I believe - it's the one just east of Hines' Ranch) is very dangerous. A driver north bound on 76th (?) can't see the west bound traffic at all. It's next to impossible to see what's coming before you turn on Camelback to go west. Also congestion on the Duncan bypass. With it only being 2 lane and not many safe places to pass, it gets backed up easily.	4/25/2017 10:57 AM
18	Freight fighways Marlow-St/Inters rsection of highways 81 and 7. Difficulty turning especially for semis	4/25/2017 9:49 AM
19	CentralHigh-St/Inter reight H shways Mar ow-St/Inters way 81 and 7 at the Lawton/Duncan Y is TERRIBLE if you are trying to turn north onto 81 from Hwy 7. We need a stop light at that location. People get so tired of waiting that they just pull out in front of you. Also turning off of Highway 7 at 7 mile road to go North to Central High School needs a right turn Lane. Cars do not slow down or pull over when you slow down to turn right.	4/24/2017 4:18 PM
20	Duncan ByPass ighways Maintenance ALL Hwy 7 Bypass intersections should have flashing lights at minimum. Make all street repairs in timely manner.	4/21/2017 11:21 AM
21	Duncan - St/Inters Highways US Hwy 81 between Elk Ave and Plato Ave in Duncan	4/20/2017 3:55 PM
22	Duncan - St/Inters Highways M. rlow - St/Inters of Duncan. Crossing HWY 81 in Marlow, HWY 29	4/20/2017 12:37 PM
23	Bike/Sidewalks Walkways what be such a great plus for the community. Lot of people could just walk to work, you actually can be out and walk, enjoy meeting people and neighbors. You can take the kids on safe walksHealthy livingIf you always have to drive your body does not get excercise anymore	4/20/2017 12:20 PM
24	Duncan - St/Inters   ighways Hivy 81 and Beech, Duncan Oklahoma Hwy 81 Northbound and southbound between Elk and Plato, Duncan Oklahoma	4/20/2017 11:57 AM
25	Duncan - St/Inters Duncan ByPass Highways htersections without overpass	4/20/2017 8:08 AM
26	Ouncan - St/Inters 1 uncan ByPass Hi hways Geiting on & off the 81 bypass st intersections without entrance & exit ramps. Road markers are very hard to read at night, therefore, roads are difficult to see.	4/20/2017 7:46 AM
27	Duncan - St/Inters tuncan ByPass Highways Saft ty (1) and Elk in Duncan needs a stoplight or a roundabout. It can take up to ten minutes to be able to turn left depending on time of day. The bypass needs more overpasses or underpasses, especially at Plato - dangerous intersection!	4/20/2017 7:15 AM
28	Highways HaintenanceM arlow-St/Inters Ros is County  Duncan Y. Need rural roads NOT to be dirt because of windmills and paved roads need better pothole maintenance.	4/20/2017 12:23 AM
29	Duncan - SVInters   reight Hi   hways Mar ow - SVInters   traffic on Hwy 7 between Duncan and Davis. Four lane would help. Also, traffic lights accommodating traffic flow in Hwy 81 in Duncan and on Hwy 7/Lee Blvd in Lawton.	4/19/2017 9:09 PM
30	Bike/Sidewalks Lack of sidewalks.	4/19/2017 8:51 PM
31	Ouncan - St/Inters 0 uncan ByPass Hill hways No. houlders Safet 1 line 2 treet Duncan in Stephens County particularly within the 700-900 block. The Hwy 7 bypass in Duncan has a lack of safe on/offramps, particularly at the Gatlin, Osage and Camelback roads. Lastly, Hwy 29 east of Bray, Ok is in desperate need of shoulders. Terrible tragedies have occurred along this busy highway and I hope there is a way to make this area safer for travelers.	4/19/2017 6:38 PM
32	Duncan - St/Inters nwy 81 from main st through camelback	4/19/2017 4:07 PM
33	Duncan-St/Inters Chisholm corner hwy7 and 81 intersection	4/19/2017 2:05 PM

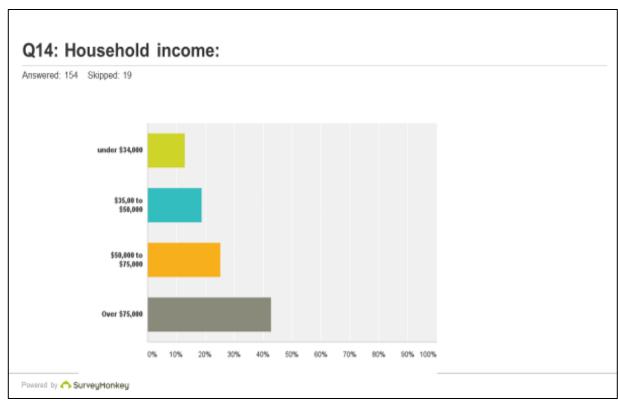


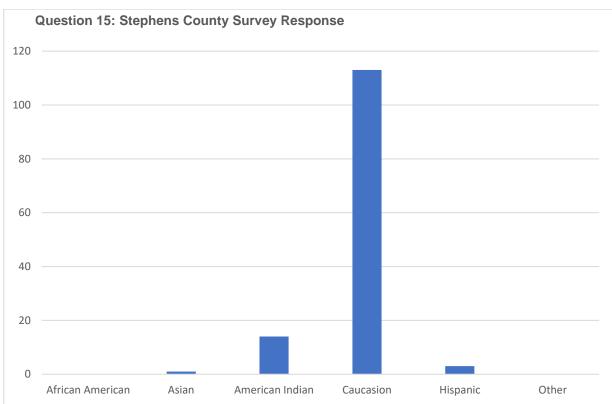


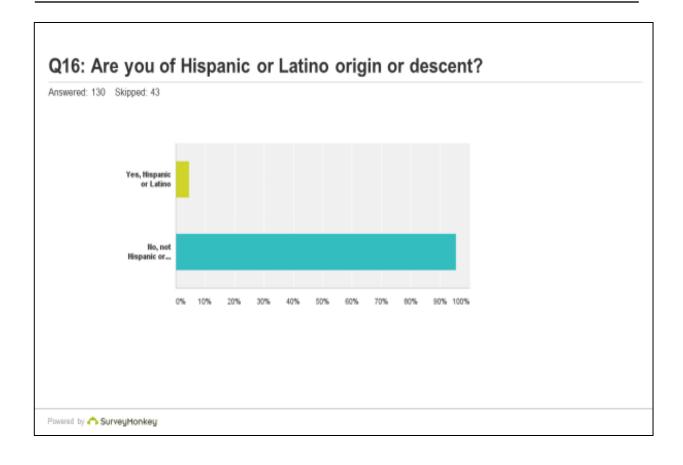
	Medicine and Company and Section (Company of Company and Company a	
100	Bike/Sidewalks is DI ncan - St/Inters Hig ways Main enance Safety Aging in frastructure, deteriorating roadways and bridges, no room for pedestrians or cyclists, almost no sidewalks, no thought given to creating more incentive for walking to local attractions or shops when development is occuring, congestion at four way and two way stops, need for traffic lights along Country Club/10th and Elk.	3/14/2017 4:49 PM
101	Maintenance Bad roads, pot holes	3/14/2017 4:16 PM
102	Congestion Congestion	3/14/2017 4:08 PM
103	Highways Highway 81 a lot of traffic at 7:00 + 12:00pm and 5 to 6pm	3/14/2017 4:00 PM
104	Maintenance Roads County Rural county roadways are horrible. Large holes, poor patching.	3/14/2017 3:45 PM
105	Duncan - St/Inters Maintenance R ads County holes around Stephens County Health Department (work place)	3/14/2017 3:39 PM
106	[Maintenance] Cosds County St. [ety   eneral, throughout the county and region, many of the signs are dated and do not have the reflective components that other, newer signs might have. This makes it difficult in the evenings to see signage and know what is coming up while driving.	3/9/2017 8:26 AM
107	Safety People don't pay enough attention to stop signs getting on bypass 7.	3/2/2017 2:23 PM
108	Duncan - St/Inters Duncan ByPass Highways Hwy 7 Bypass & Elk Avenue in Duncan	2/28/2017 9:14 AM
109	Freight Semi use of non truck routes at Tucker and Cherokee as OTR drivers navigate to Halliburton and Family Dollar distribution	2/27/2017 11:20 AM
110	Safety congestion, incompetent drivers, signage	2/24/2017 3:22 PM
111	Duncan - St/Inters Flooding Congested business HWY 81. Flooding along HWY 81 in Duncan between Plato and Main street during times of heavy rain	2/24/2017 2:03 PM
112	Bike/Sidewalks   uncan - St/Inters Hild   Inways intersections of highway 81 in Duncan specifically at pine. Lack of sidewalks for foot traffic specifically around schools which forces children to walk in the street.	2/24/2017 10:26 AM
113	Congestion Junear - St/Inters Highways HWY 81 and Elk intersection very busy intersection and can get backed up on the West side in the left turn lane	2/24/2017 10:15 AM
114	Duncan - St/Inters Highways Highway 81 - especially around Walmart	2/23/2017 4:34 PM
115	Sus puncan-St/Inters El soding Hig ways Main enance Safety Form markings in Duncan have faded and this creates a safety issue. 2. Flashing yellow turn signals would help traffic flow.  3. Plato road from Highway 81 to area lakes has a lot of traffic. In many places the water puddles on Plato and creates a safety issue. The sides of the road need to be graded so water runs off road into ditch. 4. We need public transportation in Stephens County and surrounding areas. Red River Transportation does a good job; however, the need is greater than Red River Transportation can cover.	2/22/2017 9:28 PM
116	Duncan - St/Inters raffic light at intersection of Elk and Highway 81 doesn't work after wet	2/16/2017 8:12 PM











#### Appendix 4.2: Public Outreach

On <u>February 21, 2017</u>, a stakeholder's meeting was held at Red River Technology Center, Duncan, Oklahoma. Prior to this meeting invitation were sent to local stakeholders and a press release was distributed.

SORTPO staff distributed a copy of the 2040 Stephens County LRTP on August 28, 2017 to the following agencies: Stephens County Commissioners, Duncan City Hall, Oklahoma Aeronautics Commission, Oklahoma Agriculture Food & Forestry, Oklahoma Department of Environmental Quality, Oklahoma Geological Survey, Oklahoma Department of Transportation, Oklahoma Department of Wildlife, Oklahoma Historical Society, and Oklahoma Water Resources Board.

A legal notice advertising SORTPO's public hearing to adopt the 2040 Stephens County LRTP was placed in The Duncan Banner. The SORTPO Policy Board held a public hearing on September 28, 2017 to receive comments on the Stephens County 2040 LRTP prior to its' adoption.

Public outreach for Amendment #1 included placing the proposed amendment on the SORTPO Website, SORTPO Policy Board established a 30 day public review and comment period from January 28, 2019 – February 26, 2019 and a legal notice advertising a public hearing to adopt Amendment #1 to 2040 Stephens County LRTP was placed in The Duncan Banner.

### Public Review and Comments received beginning

August 28, 2017- September 26, 2017

- A. 2040 Greer County Long Range Transportation Plan
- B. 2040 Harmon County Long Range Transportation Plan
- C. 2040 Jackson County Long Range Transportation Plan
- D. 2040 Jefferson County Long Range Transportation Plan
- E. 2040 Stephens County Long Range Transportation Plan

Agency	Contact Name	Comments	
ODEQ	Jon A. Roberts	This is in response to your August 28, 2017 request for comments on the 2040 Long Range Transportation Plans for Greer, Harmon, Jackson, Jefferson, and Stephens Counties. DEQ has no specific comments about the individual county plans; however, as you assess environmental risk posed by the projects please refer to DEQ Land Protection GIS data layers available for download at <a href="http://gisdata-deq.opendata.arcgis.com/">http://gisdata-deq.opendata.arcgis.com/</a> .	
ODOT	Lisa Lam	Editorial comments.	
Retired OSU Alumni	John Sheppard	Editorial comments.	

## Public Review and Comments received beginning January 29, 2019 - February 26, 2019

A. Amendment #1 Stephens County Long Range Transportation Plan - no comments received.

#### Stakeholder Invitation Letter



February 2, 2017

The Southwest Oklahoma Regional Transportation Planning Organization ("SORTPO") is the regional transportation planning organization for southwest Oklahoma. Within this region are 16 counties, including the eight counties within the Southwestern Oklahoma Development Authority (SWODA) Council of Government and the eight counties comprising the Association of South Central Oklahoma Government (ASCOG). SORTPO is in the process of developing a regional long-range transportation plan for the sixteen counties.

A stakeholder meeting is scheduled to introduce the long range transportation planning process and to engage you in the early stage of this plan development.

Date: Tuesday February 21, 2017
Time: 1:30pm
Location: Red River Technology Center
Jerry D. Morris Business Center Room 112

This meeting will present opportunities for you to share your areas of concern as well as to help identify transportation programs to meet the needs of the future. Please share this invitation with your associates, as all are welcome, and the meeting is open to the public. We look forward to seeing you there!

#### Press Release



February 2, 2017

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