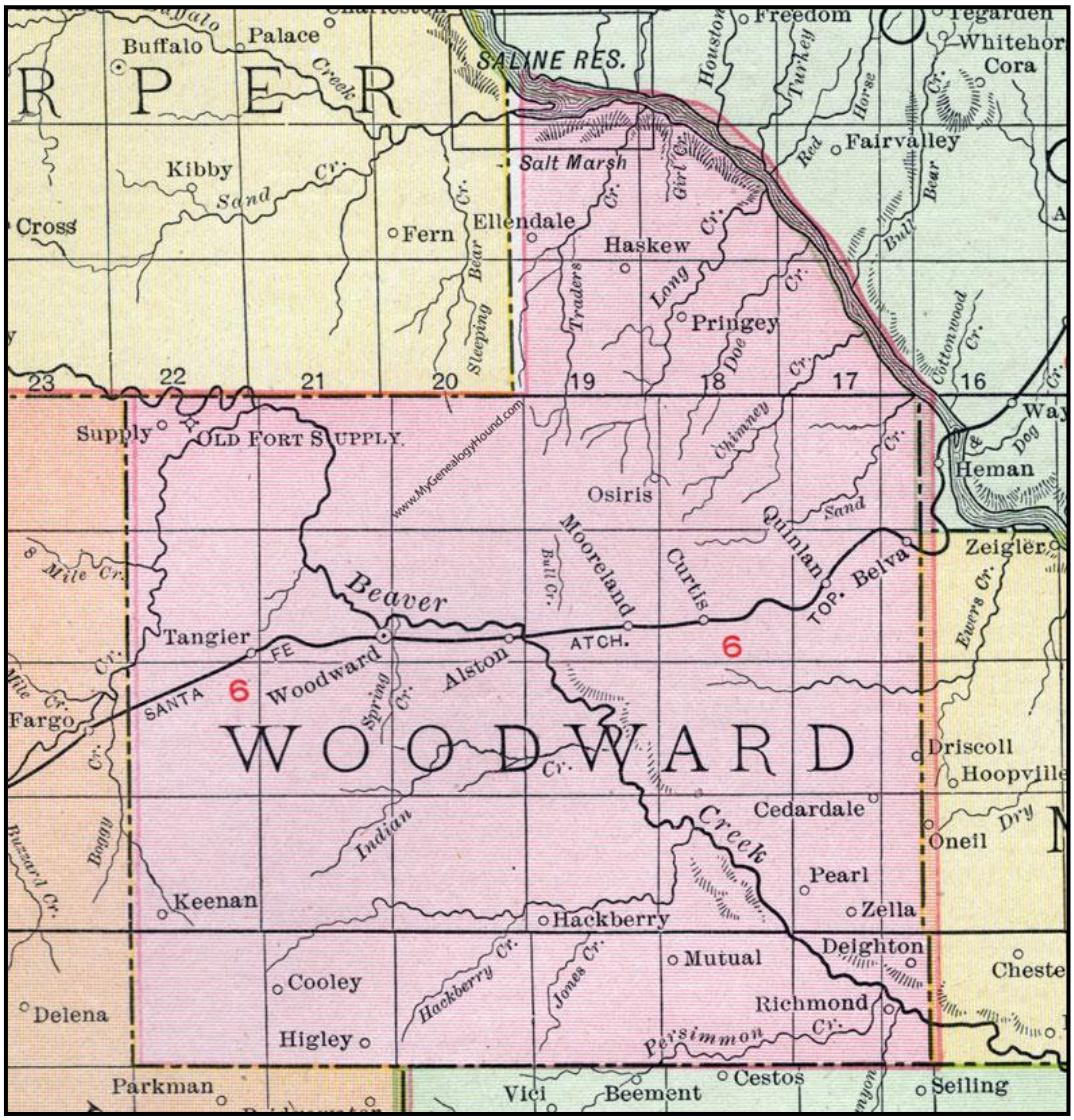
Northern Oklahoma Regional
Transportation Planning Organization

Woodward County Oklahoma
2039 Long Range Transportation Plan

Northern Oklahoma Regional Transportation Planning Organization (NORTPO)



Northern Oklahoma Development Authority

NODA

Northern Oklahoma Regional Transportation Planning Organization

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In cooperation with:

The County of Woodward

The City of Woodward

The Towns of Fort Supply, Mooreland, Mutual, & Sharon

The Oklahoma Department of Transportation
The Federal Highway Administration
The Federal Transit Administration

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Supporting/endorsing resolutions from the County Commissioners and Cities/Towns within the county will be executed after the public review period has ended.

Northern Oklahoma Regional
Transportation Planning Organization

Resolution Adopting the Woodward County 2039 Long Range Transportation Plan

Whereas, The Northern Oklahoma Regional Transportation Planning Organization (NORTPO) is the Regional Transportation Planning Organization for the Northern Oklahoma Development Authority, for the expressed purposes to carrying out the transportation planning requirements of U.S. C. Title 23, Chapter 134 and U.S.C. 49, Subtitle III, Section 5303; and

Whereas, the Woodward County 2039 Long Range Transportation Plan (LRTP) has been prepared by the NORTPO in consultation with all member local and state governments and local, state and federal transportation agencies in a continuing, cooperative, coordinated and comprehensive planning process; and

Whereas, the Plan has been presented to the general public for review and comment in accordance with the Public Participation Plan in addition to the series of public meetings and the Plan was posted on the NODA website for public review and comment.

Whereas, the Plan is consistent with local, regional, and state transportation and other planning goals and objectives and has been prepared in accordance with all relative state and federal rules and regulation, and

NOW, THEREFORE BE IT RESOLVED, that the NORTPO Policy Board hereby approves and adopts the Woodward County 2039 Long Range Transportation Plan. Further be it resolved that the NORTPO Policy Board recommends that the Plan be accepted by the Oklahoma Department of Transportation and the Federal Highway Administration and the Federal Transit Administration as the official long range transportation plan for the above cited area.

Approved and Adopted by NORTPO Policy Board and signed this 23rd day of January, 2020.

NORTPO Policy Board Chairman

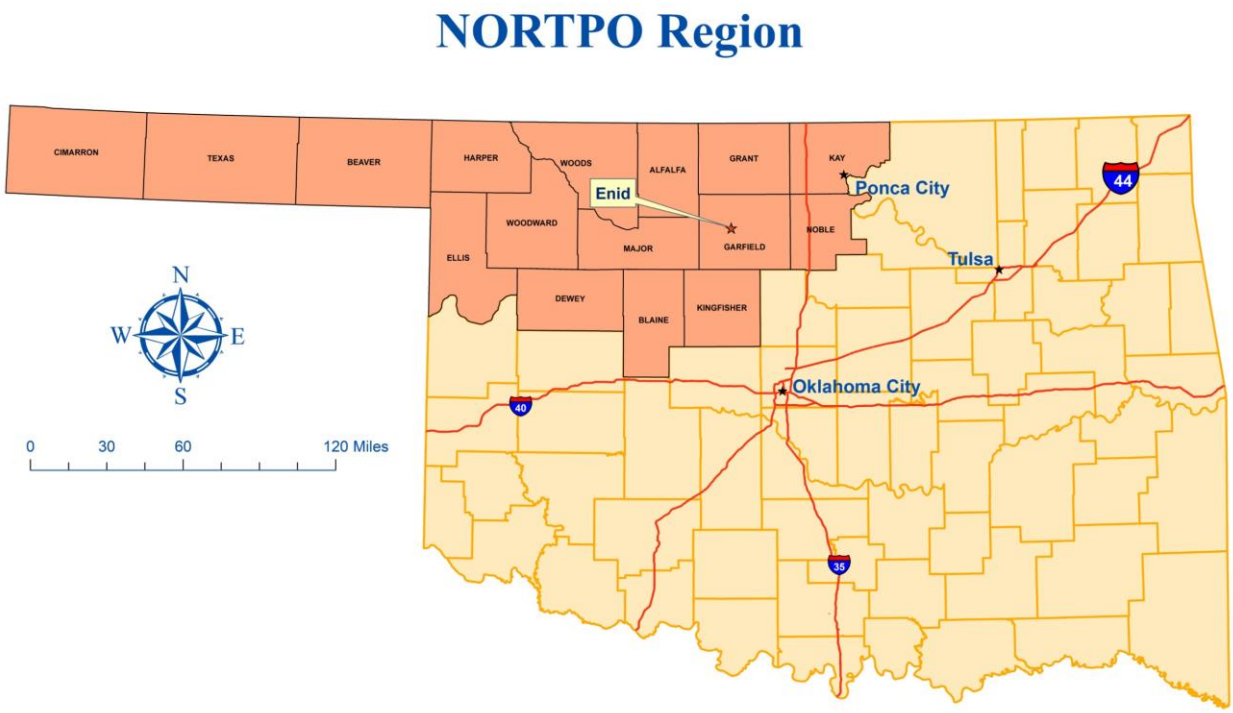
ATTEST:
Marci Hyde

EXECUTIVE SUMMARY

The Northern Oklahoma Regional Transportation Planning Organization (NORTPO) developed the Woodward County 2038 Long Range Transportation Plan (LRTP) in coordination and collaboration with stakeholders, communities, local, state, and federal agencies. The LRTP includes an inventory of the different modes of travel and identifies issues, opportunities, and trends that may influence transportation in the County over the next 20 years. The LRTP also identifies existing and potential future transportation improvement needs.

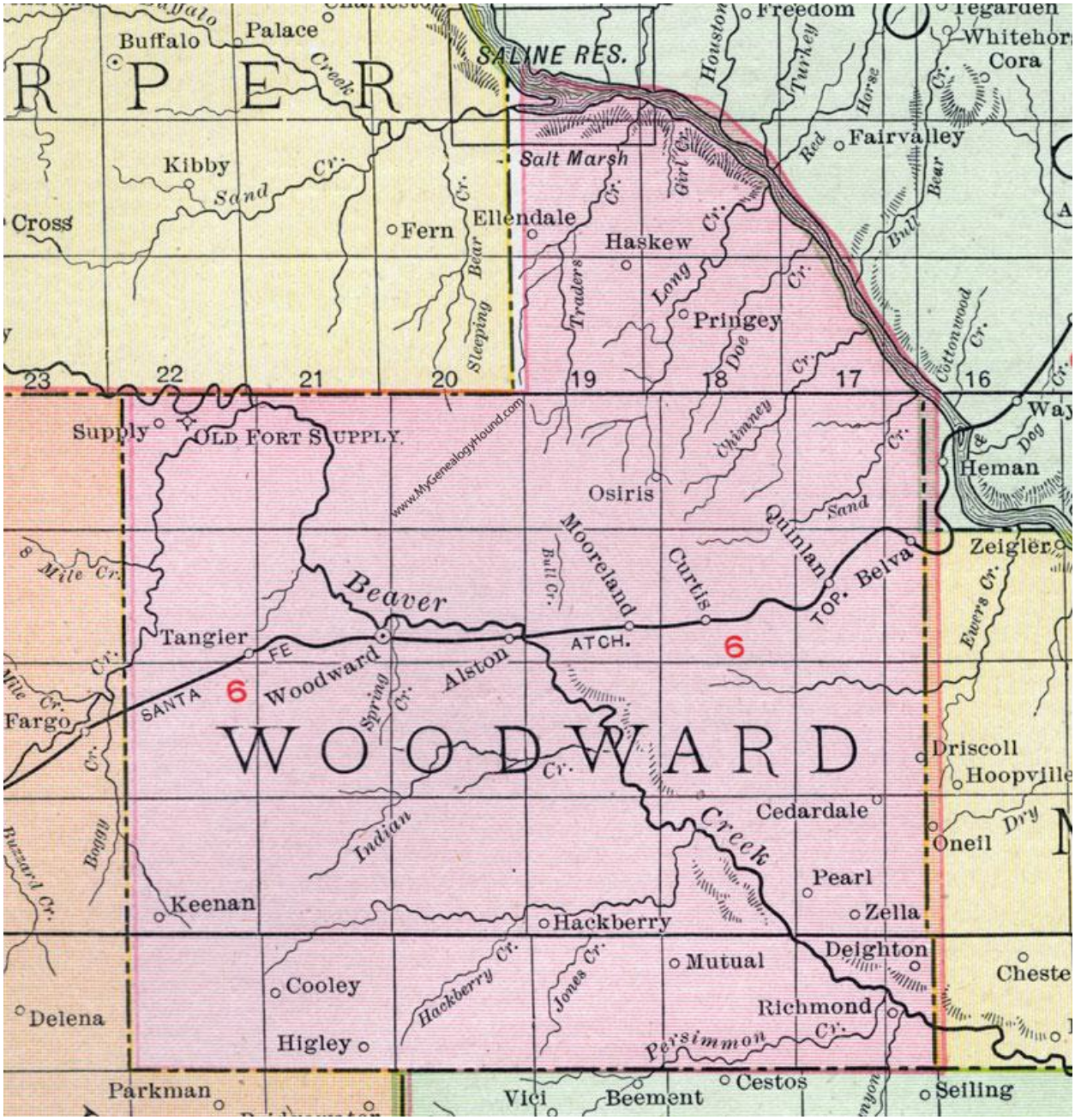
The Woodward County LRTP is part of a pilot project to help determine feasibility and organizational structure of an eventual statewide regional transportation improvement plan. This plan will be a part of the region-wide effort of NORTPO in their continuation of a regional approach to identify and examine both short and long range goals for development. A regional approach to long range transportation planning is necessary because of the rural nature and diverse characteristics of the population in Oklahoma.

Map ES.1 NORTPO Area



The NORTPO Area (Map ES.1) includes the NODA region and its eight counties for a total of sixteen counties. The region is approximately 18,900 square miles, more than on hundred cities and towns, and twenty conservation districts. The area is predominately rural, with the majority of the population within the incorporated cities of Enid, Ponca City, Woodward, and Guymon.

Map ES.2 Woodward County



Source: http://www.mygenealogyhound.com/maps/oklahoma-maps/ok-woodward-county-oklahoma-1911-map-rand-mcnally.html#

Woodward County is located in the Northwest of Oklahoma. It is surrounded by Major and Woods Counties to the East, Dewey and Ellis Counties to the South, Harper and Woods Counties to the North, and Ellis and Harper Counties to the West. Woodward County has a total of 1,246 square miles of land and water.

CHAPTER 1

INTRODUCTION, GOALS, AND KEY ISSUES

Introduction, Transportation Plan Purpose and Process

In 1970 Oklahoma's governor established 11 sub-state planning districts. Subsequently, the local governments served by the planning districts created the 11 Councils of Government (COG) using the sub-state planning district's boundaries. These 11 districts make up the Oklahoma Association of Regional Councils (OARC). Throughout the past 48 years, the regional councils have evolved from conduits for regional planning and major administration to catalysts of change in all aspects of life throughout the state. During April of 2012, the Oklahoma Department of Transportation (ODOT) contracted with OARC to implement a transportation planning process in three selected COGs. These COGS have developed Regional Transportation Planning Organizations (RTPOs): Northern Oklahoma Regional Transportation Planning Organization (NORTPO), Southwestern Oklahoma Regional Transportation Organization (SORTPO), and Central Oklahoma Regional Transportation Organization (CORTPO). In October 2015, ODOT selected Association of South Central Oklahoma Governments (ASCOG) and Grand Gateway Economic Development Association (GGEDA) to participate in the transportation planning process. These four RTPOs are working together as part of a statewide pilot regional transportation planning process.

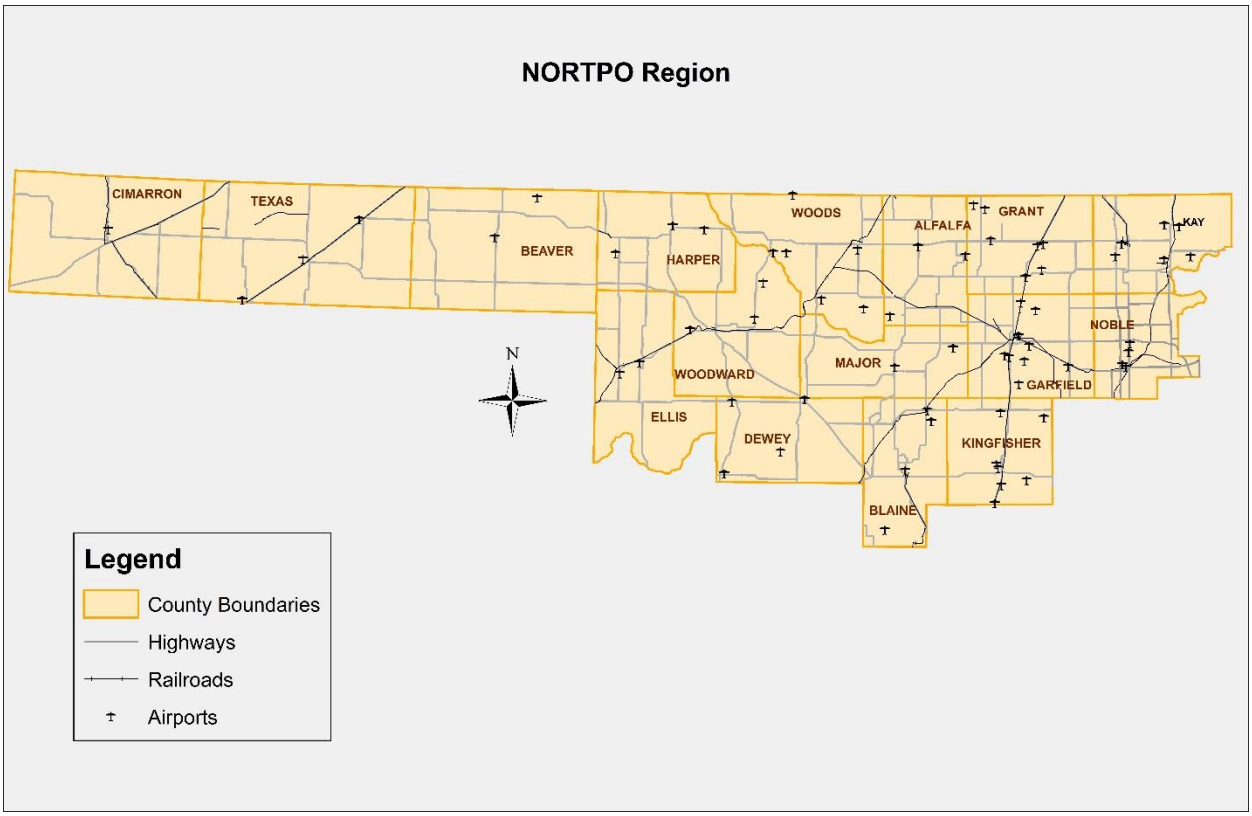
The Northern Oklahoma Development Authority (NODA) on June 16, 2010 created Northern Oklahoma Regional Transportation Planning Organization (NORTPO). In 2017, Oklahoma Economic Development Authority (OEDA) joined NORTPO to grow the region to sixteen counties total, as illustrated in Map 1.1 on page 2.

NORTPO is tasked with developing a Long Range Transportation Plan (LRTP) for Woodward County. This plan will be a part of the region wide effort of NORTPO in their continuation of a regional approach to identify and examine both short and long-range goals for development. A regional approach to long range transportation planning is necessary because of the rural nature and diverse characteristics of the population in Oklahoma. With less populated communities and counties, maintenance funding of transportation projects and programs will be an issue. It became evident in the early stages of development that the region would need to be assessed and long-range plans created for each county with the culmination of a regional planning document encompassing eight counties within five years, and all sixteen counties within eight years.

The purpose of the transportation system is to move people and goods in the safest and most efficient manner possible. The LRTP envisions the transportation system as a critical element of the quality of life for the citizens. Transportation systems for both highway and transit must safely, efficiently, and effectively allow citizens to travel to work and to conduct their personal lives.

Transportation systems must further 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.

Map 1.1 NORTPO Region



Source: NORTPO

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 priority sets. The process allows the community to focus their attention on transportation in the context of Woodward County, as well as, the NORTPO region.

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 Federal Highway Administration (FHWA) and 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. All aspects of the transportation planning process are overseen by the NORTPO Policy Board with input provided by the NORTPO Technical Committee. This committee reviews transportation planning work efforts and provides a recommendation to the NORTPO Policy Board for their consideration and action. The day-to-day activities of

NORTPO are supported by one full-time NODA staff member. Additional NODA staff members. Additional NODA staff members contribute to the transportation planning process to ensure the overall planning program is executed in a timely and efficient manner and in accordance with Federal regulations. Staff is housed at the NODA office located in Enid, Oklahoma. Staff, equipment, supplies, rent, consulting studies, and other expenses used to support staffing operations are reimbursable to NORTPO by the 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 NODA.

The LRTP establishes the goals, objectives and transportation strategies for addressing the region's transportation needs. This planning process follows the four "C's" identified by federal transportation regulations:

- Consideration means that one or more parties takes into account the opinions, actions and relevant information from other parties in making decisions or determining a course of action.
- Consultation means that one or more parties confer with other identified parties in accordance with an established process and, prior to taking action(s), consider the views of the other parties and periodically inform them about action(s) taken
- Cooperation means that the parties involved in carrying out the transportation planning programming processes work together to achieve a common goal or objectives.
- Coordination means the cooperative development of plans, programs and schedules among agencies and entities with legal standing and adjustment of such plans, programs, and schedules to achieve general consistency, as appropriate.

The LRTP was developed with the regulatory framework of Moving Ahead for Progress in the 21st Century Act (MAP-21) and the Fixing America's Surface Transportation Act (FAST Act).

Purpose of the Plan

The *Woodward County 2039 Long Range Transportation Plan (LRTP)* is a document that can be utilized by Fort Supply, Mooreland, Mutual, Sharon, Woodward, Woodward County, and residents as a guide to maintain and improve the county's transportation system through 2039. The LRTP is an important tool and assists communities in focusing their limited funds on projects that give them the best value and benefit of public funds. This is accomplished by developing a realistic project list based upon available resources, analysis of data, and input from the communities. The prioritized list of transportation projects will provide elected officials and citizens a clear focus for future transportation projects and programs.

The transportation planning process involves both long-term transportation system objectives and short-term implementation of projects that will provide a blueprint for the development of a healthier, safer and more efficient transportation system.

The year 2039 was chosen as the planning horizon year for the LRTP for the following reasons:

- The year 2039 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 adequate time to plan for long-range solutions to anticipated needs.

Although this may appear to be a rather pragmatic approach in response to critical planning issues, it is a direction that will enable local governments and participating agencies to adequately plan and prepare to achieve the long term goals, while maintaining the necessary short term vision and implementation techniques to respond to crucial short term issues. The identified planned transportation improvement projects will be prioritized with the goal of being implemented within the next 20 years.

As a means of achieving the successful implementation of the LRTP, the plan has been developed in five-year increments. The five-year increment format will offer realistic goals later in this chapter and are relative to the LRTP's short range implementation activities while still addressing the ultimate long range goals. Additionally, the five-year incremental approach presents a "good fit" with the local governments' ability to program and commit local financial resources for transportation improvements. The incremental approach also provides a reasonable opportunity in scheduling state and/or federally funded transportation improvements within Woodward County.

Fort Supply, Mooreland, Mutual, Sharon, Woodward, Woodward County, Woodward County Commissioners, regional stakeholders, and the public were contacted to compile a countywide list of projects and prioritize a list of Woodward County transportation projects. Projects were also taken from County Improvements for Roads and Bridges (CIRB) and ODOT.

Relationship and Requirements with State and Federal Agencies

The LRTP was developed in cooperation and collaboration with the federal, state, county, local member governments, ODOT, FHWA, and FTA. The LRTP is the culmination of a continuing, cooperative, coordinated, and comprehensive planning effort among the federal, state, and local governments. Directed by NORTPO it provides for consideration and implementation of projects, strategies, and services that address the eight planning factors identified in The MAP-21 and the FAST Act, which was signed into law in December 2015. The FAST Act added two additional factors for a total of ten, which NORTPO will strive to address through their LRTP planning process.

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 planed 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 storm-water impacts of surface transportation.
10. Enhance travel and tourism.

*Source: 23 USC Section 135(d) (1) and 23 USC Section 134 (h) (1) - *refers to "the metropolitan area"*

In addition, The FAST Act continues MAP-21 requirement to state departments of transportation and Metropolitan Planning Organizations (MPO) to use a performance-based approach to support seven 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, NORTPO recognizes the significance of such measures and will begin the collection of data needed to establish standards in future plans.

Goals, Objectives and Policies

The Plan format follows a hierarchy that includes goals, objectives, and policies to assist NORTPO in planning and prioritization of transportation system projects and studies. The following definitions describe the scope and intent of the goals, objectives, and policies in this plan. Goals are far-reaching statements of intent and were developed cooperatively with the community by identifying shared values and understanding of existing trends and issues. Implementation of goals is the responsibility of local, county and state governments and the RTPOs. Objectives were developed in coordination with partner agencies. The policies developed do not fall solely under the responsibility of NORTPO. Local and community agencies should consider their roles in affecting outcomes. It will be necessary to prioritize the policies and build the data collection for those policies deemed most important, into annual programs, such as the Planning Work Program (PWP).

Objectives are more focused statements that should be specific and measurable, and typically are more tangible statements of approach related to attaining the set goals. Policies identified in the Plan are formal statements of approach related to attaining the set goals and statements of practice or procedures that are recommended to be adopted by the NORTPO Policy Board. Policies are how to implement goals and objectives and are the responsibility of the appropriate agency(s). The summary of goal categories for Woodward County is:

Woodward County Transportation Goal Categories

Goal	Description
1. Community and Economic Vitality	Facilitate the easy movement of people and goods and improve interconnectivity of regions. Ensure continued quality of life during project development and implementation by considering natural, historic, and community environments, including special populations, and promote a county and regional transportation system that contributes to communities' livability and sustainability. The transportation system will support and improve the economic vitality of the county and region by providing access to economic opportunities.
2. Environment	Reduce impacts to the county's natural environment, historic areas and under-represented communities resulting from transportation programs and projects.
3. Finance and Funding	A cooperative process between RTPO partners, state officials, and private interests in the pursuit and funding of transportation improvements.
4. Maintenance and Preservation	Preserve the existing transportation system and promote efficient system management in order to promote access and mobility for both people and freight.
5. Safety and Security	The transportation system will safely ad securely support the people, goods and emergency preparedness.

Goal 1. Community and Economic Vitality

Facilitate the easy movement of people and goods and improve interconnectivity of regions. Ensure continued quality of life during project development and implementation by considering natural, historic, and community environments, including special populations, and promote a county and regional transportation system that contributes to communities' livability and sustainability. The transportation system will support and improve the economic vitality of the county and region by providing access to economic opportunities.

Objectives

1. Improve or expand the multi-modal transportation system to meet the needs of the community and under-represented population.
2. Increase access to ensure all residents have the capability of moving affordably between where they live, work, play and get services, using transportation options that promote a healthy lifestyle.
3. Improve multi-modal access to county and regional employment concentrations.
4. Support transportation projects that promote economic development and job creation.
5. Support the county and region's economic competitiveness through the efficient movement of freight.
6. Invest in a multi-modal transportation system to attract and retain businesses and residents.

Policies

1. Support transportation projects serving already-developed locations of residential or commercial/industrial activity.
2. Consider local economic development activities in the transportation planning process.
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 that serve the region.
5. Prioritize transportation projects that serve major employment areas, activity centers, and freight corridors.
6. The RTPO will coordinate with other agencies planning and pursuing transportation investments that strengthen connections to support economic vitality.
7. Emphasize improvements to the major truck freight corridors.
8. The RTPO partners will plan and implement a transportation system that considers the needs of all potential users, including children, senior citizens, and persons with disabilities, and that promotes active lifestyles and cohesive communities.
9. Design the transportation network to protect cultural, historical and scenic resources, community cohesiveness, and quality of life.

Goal 2: Environment

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

Objective

Plan and design new expanded transportation projects while preserving historical, cultural and natural environments, and under-represented communities.

Policies

1. Promote proper environmental stewardship and mitigation practices to restore and maintain environmental resources that may be impacted by transportation projects.
2. Promote the use of alternative fuels and technologies in motor vehicles, fleet and transit vehicles.
3. Assist in identification of potential environmental mitigation issues by acquiring, creating, and updating geographic information system (GIS) data layers.
4. RTPO partners will avoid, minimize, and mitigate disproportionately high and adverse impacts of transportation projects to the county's under-represented communities.

Goal 3: Finance and Funding

Develop a cooperative process between RTPO partners, state officials, and private interests in the pursuit and funding of transportation improvements.

Objective

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

Policies

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 and state officials that includes public participation, private sector involvement, coordination among jurisdictions and modes, and fiscal constraint.
4. Assist jurisdictions in identifying and applying for funds that enhance or support the region's transportation system.

Goal 4: Maintenance and Preservation

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

Objective

Preserve, maintain and improve the existing street, highway system, bikes, trails, sidewalks and infrastructure.

Policies

1. Identify sources of transportation data and develop a procedure to collect the data and present to the public.
2. Emphasize system rehabilitation and preservation.
3. Establish a regular traffic count and reporting system for the region.

Goal 5: Safety and Security

The transportation system will safely and securely sustain people, goods and emergency support services.

Objective

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

Policies

1. Collect and routinely analyze safety and security data by mode and severity to identify changes and trends.
2. Incorporate emergency service agencies in the transportation planning and implementation processes in order to ensure delivery of transportation security to the travelling public.
3. Coordinate with local governments and other agencies to identify safety concerns and conditions. Coordinate county and regional actions with the Statewide Highway Safety Plan.

4. Improve the transportation infrastructure to better support emergency response and evacuations.
5. Assist in the designation of various corridors and development of procedures to provide for safe movement of hazardous materials.
6. Minimize the impacts of truck traffic on roadways not designated as local truck routes or regional goods movement corridors.
7. Support the Oklahoma Department of Transportation in its plans to add and improve roadway shoulders to designated two-lane highways.

Key Issues, Trends and Challenges

Rural communities have problematic transportation areas even if they do not experience congestion. Understanding the true nature of the problem at these locations and developing a plan to address them is an important part of rural planning. Unanticipated changes may happen that can have impacts on a city, town, county or region. There are several issues, challenges and trends facing the county that have a direct or indirect impact on the transportation system. Key issues, trends and challenges were obtained by NORTPO through the stakeholder's meeting, technical committee meetings and NORTPO Policy Board meetings, and public surveys. The following information is intended to identify issues, trends and challenges in Woodward County.

Key issues

Key issues as identified through public comment and by existing plans and reports include:

- Maintenance and preservation of the existing transportation system
- Road flooding/drainage
- Safety/Lack of proper signage at intersections
- Localized congestion in cities and towns
- Traffic caused by the oil/gas industry's vehicles

Challenges

The challenges facing the transportation system in Woodward County include:

- Lack of significant financial resources necessary to maintain the existing system and make improvements as necessary
- An aging population and their need for alternate transportation services
- Lack of funding for public transportation
- Lack of commercial airline

Trends

Trends identified include:

- Increase in aging population
- Freight traffic will fluctuate
- Traffic congestion

CHAPTER 2

CURRENT CONDITIONS and FUNDED IMPROVEMENTS

This chapter provides a “snapshot” of current conditions that relate to transportation in Woodward County. Understanding the status of the transportation system provides a basis for developing the transportation plan. Much of this data and information was obtained from county, state and federal agencies or institutions. Tables and maps referred to in this chapter are included in Appendix G.

Transportation planning in Oklahoma has typically been limited to urban areas. Rural or regional transportation planning is evolving into an opportunity to consider both the short and long-term transportation needs for locations outside of urban areas. This plan will consider growth and development patterns in the county and will not address development regulations. However, critically important complements to these growth areas are the locations that may generate significant demands on the transportation system. Such “activity generators” include business and industrial sites, governmental, schools, universities, tourism, and recreation centers. Counties in the NORTPO region are working to seek new economic growth and diversification while striving to preserve their natural, historic and cultural resources.

As the population fluctuates (either through economic changes in or out migration, or shifting within the region) the needs of the communities include education, health care, social services, employment, and transportation. In rural areas they 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 and investments.

Covering northwest and north central Oklahoma, the Northern Oklahoma Regional Transportation Planning Organization (NORTPO) region is predominately rural with the majority of the population located within the incorporated cities of Enid (a population of 50,891), Ponca City (24,753), Woodward (12,693) and Guymon (11,934) from the 2016 ACS estimates. Table 2.1 provides population data for NORTPO Counties.

Each county in the region, although a separate entity as far as governmental services, are linked together through commerce, employment and regional transportation. Population growth and shifts for the NORTPO region are dependent on many factors for each particular county. Woodward County’s deviations in population and employment pattern is attributed to volatile nature of the oil and gas industry and subsequent impact to declines in prices in those industries. Although current data indicates this decline, historical data found on Table 2.2 in the appendices illustrates Woodward County’s growth from 1980 to 2018.

According to American Community Survey (ACS) 2018 census estimates, Woodward County has a total population of 20,222. The county encompasses 1,246 square miles and includes one city and four towns. Woodward is the largest community in Woodward County with a population of 12,162. Mooreland is the second largest with a population of 1,179 and Fort Supply coming in third with 323. The remaining towns all have a population of less than 150 each: Mutual with 60 and Sharon with 133. The remaining 6,365 population resides outside of any towns or cities.

Historically, Woodward County's economy was based principally upon farming and ranching. Broomcorn and castor beans were important crops, but wheat was the county's primary crop. Oil and gas exploration became important in 1956 and has remained significant throughout the decades.

Woodward is the county seat for the county. Before Statehood, Woodward was split into two towns (East Woodward aka Denver and Woodward). It was known as one of the wildest and woolliest towns in the Cherokee Outlet. At one time, 23 saloons and 15 brothels lined the red-dirt streets. Woodward ranked among the most important depots in the Oklahoma Territory for shipping cattle to the Eastern and Northern states. Between 1934 and 1999, the Trego's Westwear Company of Woodward manufactured Western cut clothing for customers all over the world. Rodeo and movie stars were customers of the company and costumes were frequently made for Dale Evans and Roy Rogers. In late November 1956, people first discovered natural gas in Woodward County at McCormick Number One well; a two-decade boom of oil and gas production followed. Various local attractions include Boiling Springs State Park, six miles to the northeast, and the Plains Indians and Pioneers Museum.

People established the town of Fitzgerald three miles west-southwest of the site of the former Fort Supply, but the town quickly failed. Territorial legislator James Gandy founded the town "Supply" and moved all the buildings from the failed town of Fitzgerald. Then after Statehood, the Fort Supply Army Post was transformed into a hospital and was the first state-operated mental institution. By 1943 the people changed the post office and town from Supply to Fort Supply. Agriculture and the state institutions, including a prison, ground the economic base of the community.

Mooreland was formerly named, Dail City. It was later changed to "Moorland" because there was already a town with that name in Oklahoma Territory. An error occurred and an "e" was added when the post office was established. Mooreland was part of the oil boom that happened right after World War I. Other towns near by declined but Mooreland and Woodward continued to prosper. Their economy has always depended on farming, primarily wheat and grain; quickly becoming an agricultural service center. Mooreland's most notable person in recent years, Troy Ruttman, Indianapolis 500 winner 1952, at age 22 the youngest winner of the Indy 500.

Mutual was part of the Cherokee Outlet and opened by land run in 1893. It was the name of the post office the late 1890s, however when the town was incorporated it changed its

name from Webster Township to Mutual a year after statehood. In the early days of the town, there were two churches and access to two banks. A feed mill, a machine shop, and a dealer in poultry and dairy products served local farmers. Pre World War II (WWII) there was a hotel and 13 retail establishments, but post WWII population dwindled plus most of the local businesses. Starting in the 1970s petroleum exploration and production boosted the census count. In addition, the economy is based on livestock and grain.

Sharon was originally named Hackberry. After the Wichita Falls and Northwestern Railway bypassed it, the town relocated about 5 miles northwest to its present site on the railroad. By a coin toss, Sharon was named for one of two families that owned the new town site. One of the state's first corporation commissioners (John E. "Jack" Love), also their sheriff, was from early days Sharon. The economy is centered on agriculture (wheat), poultry, and livestock. From the 1950s through the 1970s, the town was the smallest in the world to have an independent Chevrolet agency. Its owner, Granville O. Williams, also served as a state senator; his father, the first postmaster, also served as a state senator. The population fluctuated so the Mutual and Sharon schools consolidated. Their major annual event is the volunteer fire department barbecue and Memorial Day weekends ending in even-numbered years bring school alumni for a homecoming weekend.

The county population is distributed 52.8% male and 47.2% female with a median age of 36. Woodward County's population 65 years and older (2013-2017 ACS) represents 14.1% of the total population. Transportation is crucial to keeping older adults independent, healthy and connected to friends, family and health providers. However, older residents' transportation needs differ based on their health, income, marital status, age, race and whether they live in the city, town, or rural area. The needs of this segment of the population will influence the demand for public transportation services, which is limited in the region.

According to data obtained from the Oklahoma Employment Security Commission, the Local Area Unemployment Statistic (LAUS) data indicates the number of people employed between 2014 and 2018 ranged from 10,428 to 9,030 a net decrease of 1,398, while total labor force during the same time period ranged from 10,761 to 9,286.

Figure 2.1 illustrates the changes in the civilian labor force from 1990-2018.

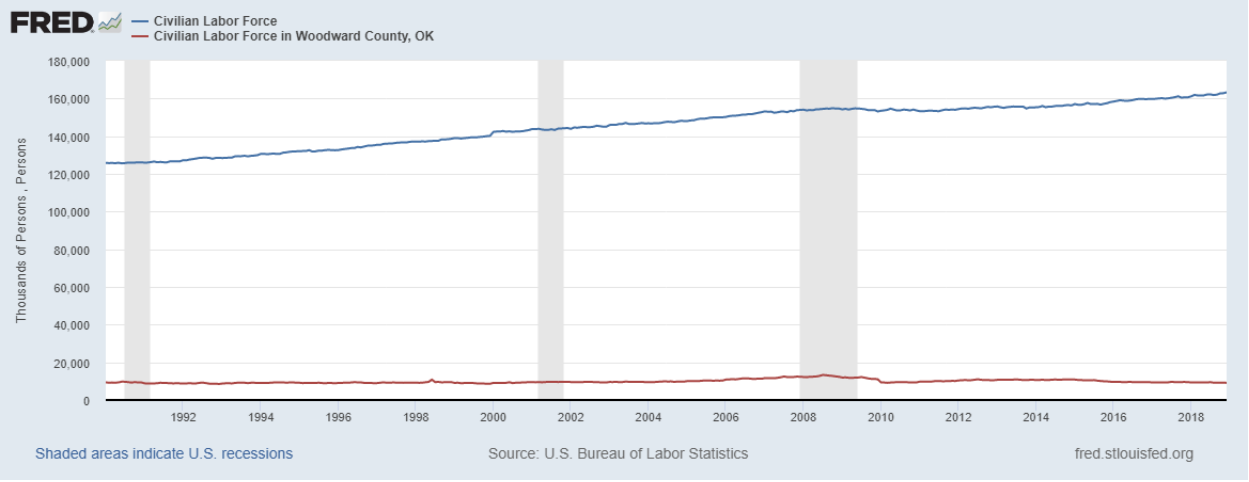


Table 2.3 summarizes vehicle registration data obtained from the Oklahoma Tax Commission (OTC). Automobile and farm truck registration continues to show little fluctuation from years 2013 to 2017. The data in the graph confirms that the primary vehicle is the automobile. Data obtained from the 2013-2017 ACS reveals that 46.1% of the working population had access to two or more vehicles, while 1.7% of the working population did not have access to a vehicle. Commute patterns to work for workers 16 years and older according the 2013-2017 ACS identify that 86.1% of workers drove alone, 8.2% carpooled, and 2.6% work from home. Mean travel time was estimated at 17.4 minutes to get to work.

Traffic Analysis Zones (TAZ)

The Traffic Analysis Zone Program is a specialized software program used for delineating TAZs in support of the Census Transportation Planning Products (CTPP). This software program is designed to allow agencies the ability to define areas to and associate demographic data that supports transportation system analysis as well as creation of geographic summary layers suitable to their planning. 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. This makes the process of maintaining and updating socioeconomic data much easier. However, utilizing this default for the plan did not provide NORTPO with transportation data that met the needs of the planning process. NORTPO staff reviewed the existing TAZ boundaries and after analysis of data, community boundaries were based on the population thresholds of 200 to 500 and employment thresholds of 300. In the future NORTPO will work cooperatively with ODOT in designation or revision to TAZ boundaries.

Geographically, Woodward County is subdivided into 40 TAZs. Because of the rural nature of Woodward County, there is a minimal amount of TAZ. Woodward is the only city in Woodward County located over multiple TAZs, because it is the area with the highest population and work force or have a highway running through the community. Historically, in non-metropolitan planning organization areas, the TAZ boundary defaulted to the census tract boundary. NORTPO will work in coordination with ODOT to maintain and update TAZs in the future. Map 2.1 illustrates the TAZ for Woodward County and Map 2.2 illustrates the TAZ for the City of Woodward. Map 2.3, Map 2.4 and Table 2.4 show the population by TAZ for both Woodward County and the City of Woodward. Major employer data is found in Table 2.5. Major employers by TAZ can be found in Map 2.5. Population changes have not changed significantly over the past twenty years.

Physical Development Constraints, Development Conditions and Patterns

There are several factors that constrain development in Woodward County. These include but are not limited to, land ownership of large tracks of land, existing development, and environmental features that affect the growth of Woodward County. These constraints, both physical and manmade, have shaped and impacted the development of the county. Current growth is concentrated in cities and towns as well non-incorporated areas of the

county. A comprehensive plan has not been completed for Woodward County but the City of Woodward has one, which is noted later in this LRTP.

According to information received from the public lack of public transportation is mentioned as one of the constraining factors for development. Maps 2.11, G2.13, and G2.14 depict the location of the highways, rivers, bridges and railroad. The primary east/west corridor is U.S. Hwy 412 & north/south corridor is U.S. Hwy 270. One Class I rail and one Class III rail. The airports in Woodward County include two publicly owned airports. Transit services are limited to call-on-demand van services provided by MAGB Transportation Inc. and Red River Transportation Service.

Woodward County is home to environmental features and natural and cultural resources that can influence the transportation system. Environmental information collected and mapped provides for an understanding and awareness of important features and resources early in the planning process. This way the protection of these resources, either through avoidance or minimization of impact, can be more fully considered as an integral part of plan and project development. 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 2039 LRTP.

These include (but are not necessarily limited to):

- Threatened and Endangered Species
- Wetlands
- Floodplains
- Surface and Ground Waters
- Storm water Management and Erosion and Sediment Control
- Hazardous Materials
- Air Quality
- Historically/Cultural Resources
- Right-of-Way/Property Impacts, Including Impacts to Parks, Farmland and Neighborhoods
- Traffic and Train Noise

Identification of important environmental features provide agencies and officials, involved with addressing the transportation issues, baseline information necessary to afford protection or to minimize impact to environmental resources, as required by the National Environmental Policy Act (NEPA) and other state and federal laws, rules, and regulations. As individual projects or transportation improvements are advanced from this plan, detailed environmental impact assessments will be required for any projects using federal funds, and in many cases any using state funds.

Environmental (Streams/creeks, floodplains and wetlands), Deficient Bridges, Historic and Archeological Sites, Federal or State Listed Species

The environmental features and constraints in this section were identified and mapped using secondary source information that included mapping, publications, and

correspondence 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), University of Oklahoma Geographic Information System (GIS), and other state and local agencies. (A complete list of references is included in Appendix F.)

Bodies of water in Woodward County include Cimarron River, North Canadian River, Fort Supply Lake, Crystal Beach Lake, Beaver River, Wolf Creek, and Boiling Springs. Streams are natural corridors that provide habitat for fish, insects, and wildlife, and recreational benefits to people such as hunting, fishing, boating, and bird watching, as well as aesthetic benefits. Streams also provide drinking water for wild animals, livestock, and people.

Woodward County Floodplains

Floodplains have been mapped for Woodward County, Town of Mooreland, and City of Woodward. Towns of Fort Supply, Mutual, and Sharon were mapped as unincorporated areas of Woodward County. Special flood hazard areas are a designated width along a stream or river that has a 1% chance of flooding annually. Flood hazard areas are protected to prevent any increase in the risks or severity of possible future floods and to maintain their natural and ecological benefits. Additional information can be accessed through the website www.msc.fema.gov.

Earthquakes

Although earthquakes have become a reoccurring issue in Woodward County, according to a study from ODOT, (http://www.okladot.state.ok.us/pontis_files/Post-Earthquak%20Insp.pdf) none of the earthquakes are of a high enough magnitude (6.0 or greater based on USGS Earthquake Hazard Program) to cause any noticeable damage to roads and bridges. Source: https://earthquake.usgs.gov/learn/topics/mag_vs_int.php

Historic Places

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 preservation, or minimization and mitigation of impact. Such Woodward County properties are listed in Table 2.6. For additional information visit the website noted here: http://www.nationalregisterofhistoricplaces.com/ok/Woodward/state.html

Threatened and Endangered Species
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. Federally listed endangered and threatened species in Woodward County may include: Whooping Crane, Interior Least Tern, and Arkansas River Shiner. Additional information can be found at:
https://www.wildlifedepartment.com/wildlife/wildlife-diversity/threatened-and-endangered

Air Quality
The Clean Air Act requires the Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Clean Air Act identifies air quality standards to protect public health, including protecting the health of "sensitive" populations such as asthmatics, children and the elderly. At this point in time air quality data is not collected.

Wind Farms
An increasing source of electricity around the nation has been through the harnessing of wind power. Due to the geographic location of Oklahoma in the Great Plains and the Rocky Mountains to the west, and the pattern of meteorological systems' general movement of west to east, winds tend to come over the mountains onto the plains at an increasing rate, thus making Oklahoma a prime location for power-generating wind turbines to be located to harness this energy.

Wind farms, locations with multiple wind turbines in fairly close proximity to each other, are created by energy companies to collect the energy created and move it via power lines to other locations. Woodward County currently has seven wind farms in development.

County and Community Development
Planning in Oklahoma has been nonexistent or very limited outside of urbanized cities and towns. This LRTP will consider growth and development patterns in the county. A critically important component to transportation planning is growth areas that may generate significant demands on the transportation system. The predominant land use in Woodward County is agricultural with commercial and residential use within the cities and towns.

With historical trends in population, declining county and community governments must consider the long-term impact of declining revenues dedicated to transportation systems and infrastructure. Efforts to maintain and attract business and industry will remain the focus of the communities for the future. Investment in infrastructure to support industry and business with careful analysis and consideration prior to expenditure of funds. In Woodward County changes that impact the transportation system include, but are not limited to, loss or gain of a major employer and movement of younger sectors of the population to more urban areas. Areas that may generate demands on the transportation

system include agriculture operations, retail sites, industrial and energy related facilities. The concentration of employers can be found in the City of Woodward, Alliance Health, and Walmart Supercenter as illustrated in Map 2.5.

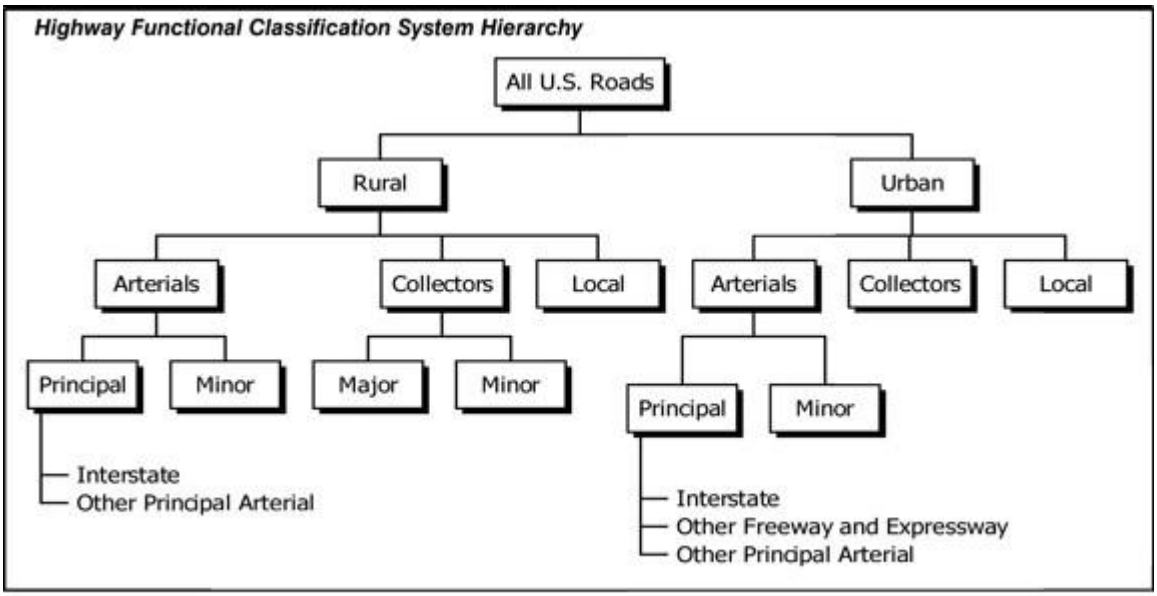
Streets and roads considered most important in the development of a LRTP are shown in Map 2.7. This includes the US and State Highways and those county roads considered to be critical to overall mobility in Woodward County. The majority of the roads in the county are two-lane undivided roads. The critical roads are functionally classified and illustrated in Map 2.6.

Road Classification

Functional classification is a well-established system utilized by the Federal Highway Administration (FHWA) for grouping streets and highways into classes based on roadway characteristics and intended services. Basic to this process is the recognition that individual roads and streets cannot serve travel independently; rather, most travel involves movement through a network of roads. Thus, it is necessary to determine how to channelize travel within the network in a logical and efficient manner. Functional classification defines the extent to which roadways provide for through travel versus the extent to which they provide access to land parcels. An interstate highway provides service exclusively for through travel, while a local street is used exclusively for land access. Each roadway has a classification number based on its location, access, and capacity characteristics. Functional class and jurisdiction are important not only in relation to operational and in maintenance responsibility, but also in how roadway improvement projects can be funded. Map 2.6 illustrates Woodward County's Rural Functional Classification.

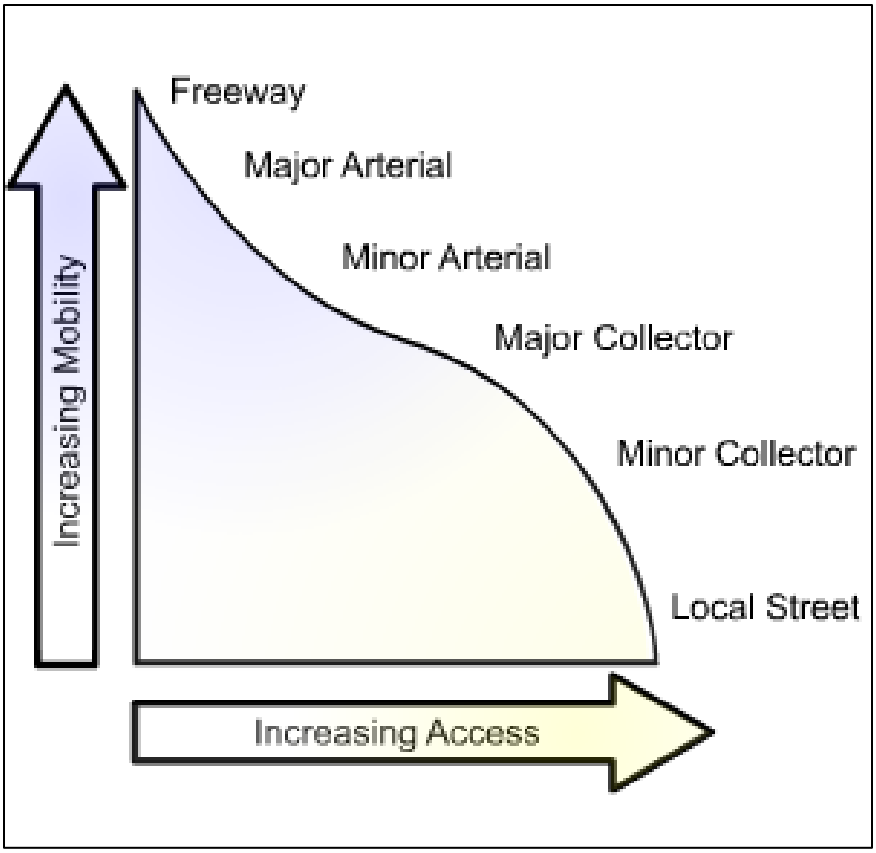
An efficient transportation system includes a proper balance between movement of traffic and access to abutting land. The majority of the roads in Woodward County are designated as rural. See Functional Classification Hierarchy Charts below in Figure 2.2 and Figure 2.3. Figure 2.4 shows the relationship between functional classification and travel characteristics.

Figure 2.2 illustrates the functional classification hierarchy.



Source: FHWA Functional Classification Guidelines.

Figure 2.3 Conceptual Roadway Functional Hierarchy



Source: FHWA

Figure 2.4 Functional Classification and Travel Characteristics

Functional Classification	Distance Served (and Length of Route)	Access Points	Speed Limit	Distance between Routes	Usage (AADT and DVMT)	Significance	Number of Travel Lanes
Arterial	Longest	Few	Highest	Longest	Highest	Statewide	More
Collector	Medium	Medium	Medium	Medium	Medium	Medium	Medium
Local	Shortest	Many	Lowest	Shortest	Lowest	Local	Fewer

Funding eligibility limitations include:

- FHWA National Highway Performance Program (NHPP) can be used only on the National Highway System (NHS), which comprises the Interstates, all other Principal Arterials, and all designated NHS Connectors.
- FHWA Surface Transportation Program (STP) can be used on any facility except Local Roads and Rural Minor Collectors.
- FHWA Highway Safety Improvement Program can be used to address safety problems on any public road.

Traffic counts collected by ODOT for 2018 are illustrated in Map 2.7. Data collected can be as specific as type of vehicle and direction travelled, or just how many vehicles travelled the roadway. Also called annual average daily traffic (AADT) counts, this data reveals that the largest volume of traffic is concentrated within the Woodward City limits. These concentrations near the intersection of US 412 and US 270/SH 34 plus the intersection of US 412/SH 15 and US 183.

- US 412 – intersection with US 183 (8,100 – 12,900 AADT)
- US 412 – intersection with US 270 & SH 34 (11,800 – 18,900 AADT)

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 vandalism, criminal activity, 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. NORTPO and its member jurisdiction transportation and emergency service staff are regular participants in security planning and preparation activities including the update of the Woodward County Multi-Jurisdiction Hazard Mitigation Plan. Ongoing participation in these planning activities helps prepare for and better manage transportation security situations.

FAST Act 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 State of Oklahoma Highway Safety Office's website (http://ohso.ok.gov/strategic-planning-results).

The safety of the travelling public, regardless of vehicle type or highway system classification, is of paramount concern for ODOT and NORTPO. 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 will give a more accurate reflection of the safety condition of the county. Collision records were collected from ODOT for the years 2013-2017.

There were 1,618 total crashes involving 1,186 people and 27 fatality crashes killing 32 people in Woodward County over the 2013-2017 timeframe with an average of 323.6 crashes per year. Map 2.8 shows the locations of collisions for 2013-2017. Table 2.7 crash data for 2013-2017 shows total crashes and fatalities. The majority of collisions were rear-end (21.6%), angle turning (15.5%), fixed object (15%), other (14%), and right angle (13.5%).

A severity index is 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. Figure 2.5 identifies the top 25 collision locations with the highest severity index for the Woodward area.

Figure 2.5 Severity Index of Collisions in Woodward County, 2013-2017 (source ODOT)

								------INTERSECTING------					
COUNTY	CITY	HWY CL	INT ID	CS/ ST.1	HWY	INT-REL/ TERM-LOC	CITY STREET NAME	CITY STREET NAME	HWY	MILE/ ST.2	SEV INDEX	NUM COLLS	RANK
(77)WOODWARD	(30)WOODWARD	8	04	04	US-183	INTER	9 ST.	OKLAHOMA AVE	US-412	03.63	39	36	1
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	OKLAHOMA AVE.	22 ST.		04.55	38	33	2
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	OKLAHOMA AVE.	28 ST.		05.03	31	23	3
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	OKLAHOMA AVE.	13 ST.		03.91	29	17	4
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	OKLAHOMA AVE.	34 ST.		05.62	28	23	5
(77)WOODWARD	(30)WOODWARD	6		2300		INTER	8 ST.	DOWNS AVE.		3600	24	23	6
(77)WOODWARD	(30)WOODWARD	7		12	US-412	INTER	OKLAHOMA AVE.	8 ST.		00.07	24	16	7
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	9 ST.	1 ST.		02.02	22	19	8
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	9 ST.	DOWNS AVE.		02.54	22	17	9
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER		WESTERN AV./EW 39		07.00	21	12	10
(77)WOODWARD	(00)	4	07	02	US-183	INTER		SH-34/EW 43(32)	SH-34	27.52	20	10	11
(77)WOODWARD	(30)WOODWARD	7		12	US-412	INTER	OKLAHOMA AVE.	LAKEVIEW DR.(25)		01.05	19	14	12
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	9 ST.	LAKESVIEW DR.		01.45	13	12	13
(77)WOODWARD	(30)WOODWARD	7		12	US-412	INTER	OKLAHOMA AVE.	1 ST.		00.57	13	11	14
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	OKLAHOMA AVE.	14 ST.		03.98	12	11	15
(77)WOODWARD	(30)WOODWARD	7	03	04	US-183	INTER	OKLAHOMA AVE.		SH-15	05.77	12	11	16
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	9 ST.	8 ST. - N.		02.93	11	10	17
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	9 ST.	MAPLE AVE.		03.56	11	10	18
(77)WOODWARD	(30)WOODWARD	8		20	SH-34	INTER	9 ST.	MAIN ST.		00.14	11	9	19
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	OKLAHOMA AVE.	21 ST.		04.48	10	10	20
(77)WOODWARD	(30)WOODWARD	6		2100		INTER	22 ST.	DOWNS AVE.		3600	10	7	21
(77)WOODWARD	(30)WOODWARD	6		2100		INTER	22 ST.	MAIN ST.		3820	9	9	22
(77)WOODWARD	(30)WOODWARD	6		2360		INTER	1 ST.	DOWNS AVE.		3600	9	8	23
(77)WOODWARD	(30)WOODWARD	7		04	US-183	INTER	9 ST.	WALNUT AVE.		03.25	9	6	24
(77)WOODWARD	(30)WOODWARD	7		12	US-412	INTER	OKLAHOMA AVE.	3 ST. (S. ST.)		00.41	9	4	25

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 NORTPO Technical Committee and NORTPO Policy Board, and information obtained via public comment, data areas of concern were identified. The major areas of concern are:

- Resurface US Hwy 270/US Hwy 183 at Fort Supply
- Wanting a truck route/by-pass around Woodward
- Downs Street in Woodward
- US Hwy 412/Oklahoma near McDonald's is a huge concern in Woodward
- Intersection near high school in need of better signage and/or flashing lights

Transportation Inventory and Improvement Needs

Road System

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 12,265 centerline miles as measured in one direction along the dividing strip 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, highways, and railroads. On average passenger vehicles, buses and trucks travelled more than 68.8 million vehicle miles each day (daily vehicle miles travelled or DVMT) in 2017 on the state-owned highway system (not including toll roads).

Oklahoma's rural nature and historically agriculture 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; Map 2.9 illustrates the location of two lane highways with no paved shoulders.

Map 2.10 illustrates the Steep Hill/Sharp Curves areas of concern (statewide). Woodward County transportation system has approximately 3,367 miles of roadways that make up the road network. *(Source: ODOT)*

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 2015 reveals about 28% or approximately 3,466 of the state's 12,265 miles of highway rate as critical or inadequate which includes 2,858 miles of two-lane highway. The interstate system in Oklahoma is the highest class of highway and is designed to be the critical transportation link. While the 673 miles of interstate account for only 5.5% on the centerline miles of our state system, it carries 33.6% of daily miles travelled.

Woodward County is served by three state highways and has three US Highways, as well as municipally owned streets and county roads.

The major access roads are:

- US Highway 183
- US Highway 270
- US Highway 412
- SH 15
- SH 34
- SH 50

The NORTPO network of roads consists of more than 10,000 lane miles (centerline miles multiplied by the number of lanes). The municipalities are responsible for road maintenance within the corporate limits excluding the Interstate System, US and State Highways, which are maintained by ODOT. The county maintains the roads outside the municipalities' corporate limits.

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 (sediment removal from moving water causing holes) around bridge piers.

Bridges are rated on a numerical scale of "1" to "7" that translates into arrange of Poor, Fair, Good, and Excellent. Bridges are also described as "Structurally Deficient" and "Functionally Obsolete." The former may have any of a number of structural problems noted in the section; 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.

Bridges are composed of three basic parts: deck, superstructure and substructure. If any of these components receives a condition index value of four or less in the National Bridge Index, it is considered structurally deficient. More information can be found in Appendix G.

The NORTPO planning area has more than 4,300 bridges, culverts, and structures constructed since 1902 that are critical for regional mobility. These structures enable

vehicles, bicycles, pedestrian and wildlife to cross an obstacle. More specifically, culverts are structures designed to increase water flow, while bridges are structures that span more than 20 feet between supports. Like roads, bridges and culverts 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 these structures undergo regular inspections by qualified engineers. Inspections help locate and identify potential problems early and trigger protection mechanisms when a problem is found. The bridges and culverts in the county vary greatly in their age, averaging 48 years.

There are 170 bridges in Woodward County. Map 2.11 shows the bridges and Table 2.8 lists the bridges by location. According to data received from ODOT, there are numerous deficient bridges, not only in Oklahoma but in Woodward County, as well. In the last few years repair and/or replacement of deficient bridges has been a priority of ODOT.

Freight

The Fixing America's Surface Transportation Act (FAST Act) repealed both the Primary Freight Network (PFN) and Nation Freight Network and directed the FHWA Administrator to establish a National Highway Freight Network (NHFN). The FAST Act included the Interstate System – including Interstate facilities not located on the Primary Highway Freight System (PHFS) in the NHFN. All Interstate Systems' roadways may not yet be reflected on the national and state NHFN maps (Map 2.12). While Woodward County does not include roads identified in the NHFN, the NORTPO Policy Board recognizes that highways US 412, US 270, US 183, SH 15, SH 34, and SH 50 are significant statewide and regional highway freight corridors. Woodward County Freight Corridors determined by the NORTPO Technical Committee are located on Map 2.13. The majority of freight movement in the region is by truck and rail. Figure 2.6 shows the average daily long haul traffic on the National Highway System (NHS) for 2015.

Figure 2.6 - Average Daily Long Haul Traffic

Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty five FAF trucks per day and between places typically more than fifty miles apart.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework, version 4.3, 2017.

Growth of freight by truck will continue to grow as industrial business grows. To assist with the inspection and enforcement of truck permits the Ports of Entry (POE) facilities were constructed. The POE are state-of-the-art facilities established as the mechanism to create a more controlled freight transportation environment on the highway system. This system monitors freight ingress at the state line and allow better enforcement of vehicle and freight laws. Figure 2.7 illustrates existing and proposed Ports of Entry.

Figure 2.7 Existing and Proposed Ports of Entry

Rail

Freight traffic continues to be the main source of railroad activity in the State. An estimated 287.5 million tons of freight flows through the state on rail lines each year with many rail lines carrying 50 to 100 trains a day. Rail freight traffic will experience significant growth over the next few decades with the number of trains on some corridors expected to double over the next 20 years. The state-owned tracks are leased by privately operated railroads. *(Source: ODOT)*

There are three Class I railroads and 18 Class III railroads in Oklahoma. Woodward County has one Class I railroad, the Burlington Northern Santa Fe (BNSF) Railway Company, and one Class III railroad, the Northwestern Oklahoma RR (NOKL). The State of Oklahoma owns approximately 306 miles of track and the tracks are leased by privately operated railroads. In August 2014, ODOT and the Stillwater Central Railroad completed a $75 million sale of the Sooner Sub rail line between Midwest City and Sapulpa. With the sale of the 97.5 miles of rail line, ODOT announced a $100 million initiative to improve safety at the State's railroad crossings. Most of the money for this program comes from the $75 million sale of the Sooner Sub. Improvements are to be made to more than 300 rail crossings statewide and will add flashing lights and crossing arms to many of these crossings. Federal funding, as well as funds provided by railroad companies will also be used in completing the three to four-year program. Map 2.14 shows the railroads in Woodward County.

Grain and mining products are the main freight transported through the county. Freight movement by rail in the NORTPO region is primarily used by the agricultural industries. There are more than 1,375 miles of open rail track in the region. The rail infrastructure is the responsibility of the railroads. According to information obtained from “Freight Flow Report 2012” prepared by Parsons Brinkerhoff to enhance the state freight truck model, county-level traffic and truck counts are needed.

Oklahoma is a part of the Strategic Rail Corridor Network (STRACNET), a function of the Railroads for National Defense. STRACNET consists of 38,800 miles of rail lines important to national defense serving military installations that require rail service. Both Fort Sill and the McAlester Army Ammunition Depot are actively connected to STRACNET, while Vance Air Force Base, Altus Air Force Base, and Tinker Air Force Base all have the capability to reconnect to STRACNET “connector line” through Woodward County and can service some of these military installations.

Figure 2.8 STRACNET

Source:https://www.sddc.army.mil/sites/TEA/Functions/SpecialAssistant/RND%20Publications/STRACNET%202018_Reduced.pdf

Bicycle and Pedestrian Network

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 on a highway is an acceptable substitute for a sidewalk. Safe pedestrian travel also requires protected

crossings of busy streets with marked crosswalks and pedestrian signals and appropriate pedestrian phases at signalized intersections. Woodward County's rural nature has limited the available investment in a bicycle and pedestrian network outside of the City of Woodward. Figure 2.9 illustrates the City of Woodward's Trail Map, current and proposed.

Figure 2.9 City of Woodward Trail Map

Source: City of Woodward Comprehensive Plan 2014

One opportunity to develop and implement bicycle and pedestrian facilities is the Transportation Alternative Programs (TAP), administered by ODOT. In FFY 2019, projects that were awarded in the NORTPO region included Kaw City to install new sidewalks and walking trails connecting the Kaw City Community Center, the Kaw City Museum, the Senior Citizens Building, the city park, and the post office.

Public Transportation

Public transportation systems and services in rural areas are limited. Low population densities in the NORTPO region and the distances between activity centers complicate the delivery of public transportation in rural areas. There are limited activity generators (mostly job destinations) that produce concentrations of transit need. That is, at least one end-of-trip is concentrated enough that public transit may be attractive. The difficulty then becomes establishing feasible routes and scheduling service such that the trip is acceptable to the workers. Federal, state and especially local funding is limited. This limits the type and level of service (LOS) that can be provided. ODOT's Transit Programs

Division is responsible for the administration of the Federal Transit Administration (FTA) for rural transit operations.

Public transportation services for the area is limited to on demand van services provided by MAGB (Major, Alfalfa, Grant, & Blaine) Transportation, Inc. and Red River Public Transportation Services. MAGB Transportation, Inc. serves all of NW Oklahoma, while focusing on Major, Alfalfa, Grant, and Blaine Counties. Their main office is located in Fairview, Oklahoma. They serve not only passengers that are 60 and older, but also low/moderate income residents. Both MAGB and Red River Public Transportation Services travel to Woodward County as needed and not used by residents for daily use. They are typically solicited for citizens from other counties visiting the Woodward County health facilities not available in their own communities. Table 2.9 shows MAGB's ridership and revenue data.

Aviation

NORTPO area consists of more than 25 general aviation airports (Figure 2.10) which are considered all civil aviation operations other than scheduled air services and non-scheduled air transport operation for remuneration or hire. General aviation flights range from gliders and powered parachutes to corporate jet flights. General aviation covers a large range of activities, both commercial and non-commercial, including flying clubs, flight training, agricultural aviation, light aircraft manufacturing and maintenance.

Figure 2.10 List of NORTPO Airports

County	Towns	Airports
Alfalfa County	Cherokee	Cherokee Municipal Airport
Beaver County	Beaver	Beaver Municipal Airport
Blaine County	Okeene	Christman Airfield
	Watonga	Watonga Regional Airport
Cimarron County	Boise City	Boise City Airport
Dewey County	Seiling	Seiling Airport
	Vici	Vici Municipal Airport
Ellis County	Gage	Gage Airport
Garfield County	Enid	Enid Woodring Regional Airport
Grant County	Medford	Medford Municipal Airport
	Pond Creek	Pond Creek Municipal Airport
Harper County	Buffalo	Buffalo Municipal Airport
	Laverne	Laverne Municipal Airport
Kay County	Blackwell	Blackwell-Tonkawa Municipal Airport
	Ponca City	Ponca City Regional Airport
Kingfisher County	Kingfisher	Kingfisher Airport
Major County	Fairview	Fairview Municipal Airport
Noble County	Perry	Perry Municipal Airport
Texas County	Guymon	Guymon Municipal Airport
	Hooker	Hooker Municipal Airport
	Texhoma	Municipal Airport
Woods County	Alva	Alva Regional Airport
	Freedom	Freedom Municipal Airport
	Waynoka	Waynoka Municipal Airport
Woodward County	**Mooreland**	**Mooreland Municipal Airport**
	Woodward	**West Woodward Airport**

Source: http://www.airnav.com/airport

CHAPTER 3

FUTURE CONDITIONS AND PLANNED IMPROVEMENTS

The objective of the Future Conditions and Planned Improvements chapter is to portray a “snapshot” of typical daily traffic conditions in the county for the year 2039. It is assumed that only those projects included in the current ODOT eight-year construction plan, CIRB, and projects funded by local governments will be constructed by the year 2039. Tables and maps referred to in this plan are included in Appendix G

Future Conditions

The population and employment projections for Woodward County were produced at the TAZ level for 2039. The 2039 population projection of 25,795 and employment projection of 11,364 were distributed through the Census Block Groups. The projected population and employment data are illustrated in Map 3.1. Table 3.1 contains supporting data for the maps. Compared to the 2016, population and employment is projected to remain consistent with the 2017 ACS estimated population of 21,140 and Oklahoma Employment Security Commission’s LAUS employment data of 9,804 through 2039. *(Source: NORTPO)*

Population and employment projections are based upon available data. When utilizing this data, it is imperative to understand that with this knowledge of the continued fluctuation in growth NORTPO will continue to monitor projections and impact on the LRTP.

Studies to identify specific causes and solutions for these areas will need to be considered on a case-by-case basis. As population changes occur, the impact on the traffic volume and roadway capacity will need to be re-examined.

The need for safety and intersection improvements in Woodward County is widespread and not practical to address all the improvements at once. Instead, careful review is needed prior to prioritization of the projects. Often times through new road construction or improvement safety problems can be addressed. However, many of the local roads experiencing safety concerns do not need widening or are not conducive to widening.

2039 Transportation 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.

There are a number of options for addressing safety concerns on rural roads. These include but are not limited to: widening and paving shoulders, designing shoulders to accommodate pedestrians and bicyclists, realigning intersections and curves and intersection improvements.

The funded projects identified in Table 3.2 were obtained from the ODOT 8-Year Construction Program 2019-2026, CIRB Plan 2019-2023 (Table 3.3), County Commissioners, Local Governments, and Transit operators. Map 3.5 illustrates the location of projects included in the ODOT 8-Year Construction Program 2019-2026.

Planned Improvements

Planned improvements are projects that are desired but funding has not been secured. ODOT initiated projects are those listed in years 2019-2023. When and if funds are available over the next five to 20 years, the county, city, and town officials have provided the list below:

- Reconfigure and improve the intersection of Oklahoma Avenue and 9th Street to allow for smoother traffic flow and improve turning radii.
- Extend the Downtown streetscape east along Main to Oklahoma Avenue. (FFY2019 $1.3m)
- As part of a Capital Improvement Plan, redevelop roads as boulevards as recommended in the comprehensive plan including construction of round-a-bouts
- Tearing out and rebuilding EW-51 beginning at US Hwy 34 and West a distance of 5.0 miles to NS 201. (Project # 28460 (04))
- Chip/Seal Hwy 15 west of Woodward, NS 195 – 51 to Sharon and Shattuck (approx. 9 miles) (Comment made during Public Review period from Woodward County)
- Chip/Seal 195 EW 44 – to Hwy 15. (Comment made during Public Review period from Woodward County)
- Crosswalk project(s) on US Hwy 412 with markings, signs, and signal lights.
- *Sidewalks, widening/resurfacing roads, walking/bike trails around town, improving our park. Crosswalks routing kids to school.* (Comments made during Public Review period from Fort Supply)

CHAPTER 4

FINANCIAL SUMMARY

Financial Assessment

The assessment is intended to summarize federal, state, and local transportation sources. Maps and tables referred to in this plan are included in Appendix G.

Funding Sources

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 authorizes projected funding levels for a period of six years. Consistent, long-term funding anticipations are critical in order 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 Federal Highway Trust Fund (HTF).

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 (FHWA). 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 HTF and are distributed to the states by the FHWA and the Federal Transit Administration (FTA) to each state through a system of formula Majors and discretionary allocations. Motor fuels taxes, consisting of the 17 cents per gallon tax on gasoline and 14 cents 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) are federal funds utilized on road projects. These STP funds may provide up to eighty percent (80%) of the construction costs of these projects. Counties and municipalities 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 funded taxes.

State

Funding for highway improvements in Oklahoma comes primarily from two sources – Federal HTF and revolving funds including federal and state motor fuel taxes directed to the Highway Trust Fund and the State Transportation Fund along with the Rebuilding Oklahoma Access and Driver Safety (ROADS) fund as initiated by House Bill 1078 in 2005. House Bill 2248 and House Bill 2249 provide funding to reduce the number of structurally deficient bridges and deteriorating road conditions on the state highway system.

In 1923, Oklahoma enacted its first state level excise tax on motor fuels. The last increase was in 1987 and the tax is currently seventeen cents ($0.17) per gallon for gasoline and diesel at fourteen cents ($0.14) per gallon. There is also a transportation-dedicated five cents ($0.05) per gallon tax on natural gas used for motor vehicle fuel. Oklahoma's primary sources of funding for road and bridge construction and maintenance are derived from fuel taxes and motor vehicle tax. The motor fuel taxes that are deposited to the State Transportation Fund (STF) are gasoline excise tax, diesel fuel excise tax, special fuel use tax, and special fuel decals. The fuel tax is assessed on consumers when they purchase fuel, and the gasoline tax is the largest generator of revenue to the STF. The motor fuel tax revenues are also apportioned to municipalities and county governments for road and bridge repair and maintenance and to Native American Tribes.

In addition to the above taxes, the ROADS Fund is guaranteed an annual apportionment but capped at $575 million annually. In FFY 2017, the Fund received $571.7 million. In addition, the County Improvement for Roads and Bridges (CIRB) fund, created in 2006 and administered by ODOT, was increased to twenty percent (20%) of motor vehicle registration fees and capped at $120 million beginning in SFY 2016.

Public transportation funding for rural transit agencies is as follows:

- ODOT receives FTA's Section 5311 funding.
- Sub recipients submit application for Section 5311 funds annually.
- ODOT reviews applications that includes service areas. Service areas usually include multiple counties and/or city limits.
- Funds are allocated to eligible sub recipients based on the average of their last two previous years of performance measures (i.e. revenue miles, passenger trips, etc.) within their pre-approved Section 5311 service areas.
- Sub recipients are reimbursed for eligible administrative, operational, and capital expense, at specific rates, for services performed within their total pre-approved Section 5311 service areas.

Funding of local transportation projects and programs is heavily influenced by The 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 in order to accomplish the projects.

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 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 for roads and bridges with revenues earmarked for roads and bridges.

Challenges faced by local and state governments include: dependence on revenues from the state gas tax, the state's fixed rate gas tax, major disaster declarations, and impact on the infrastructure.

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 for specifically for the CIRB category are collected from state gasoline and diesel tax, special fuel tax and state gross production tax on oil. Table 3.3 summarizes the CIRB for Woodward County. The county uses a small percentage of tax revenues for maintenance and minor improvements, relying on outside funding sources for major improvements.

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 CDBG through The Oklahoma Department of Commerce, EDA, and US Department of Agriculture Rural Development (USDA RD) programs. Oklahoma has limited funding available for projects through REAP administered by The Councils of Government (COG).

CHAPTER 5

PUBLIC PARTICIPATION SUMMARY

This chapter presents and describes the public participation tools the RTPOs utilize as part of the planning process. Public participation is a federal requirement identified in the FAST Act. NORTPO has an adopted Public Participation Plans that was followed.

Environmental Justice (EJ)
The Federal Highway Administration (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 or African American, Hispanic or Latino, 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.

According to the US Census Bureau's 2017 population estimates, Woodward County's racial and ethnic composition is 89.1% White, followed by 1.5% American Indian and Alaska Native, and then 0.8% African American. In comparison, Oklahoma's is 72.9% White, followed by 7.4% American Indian and Alaska Native, and then 7.3% African American. The LRTP process identified EJ populations through a comparison of the racial and ethnic composition of the county.

Coordination Efforts
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. The review included:

- FAST Act Federal Planning Factors (MAP-21 Federal Planning Factors)
- ODOT 2015-2040 Long Range Transportation Plan
- Freight Flow Study
- 2012 Transit Gap Overview and Analysis
- Oklahoma Mobility Plan
- Statewide Transportation Improvement Program (STIP): http://www.okladot.state.ok.us/p-r-div/stip/STIP_2018-21/Complete_2018-21_STIPSEP2018.pdf
- ODOT 8-year Construction Plan: https://www.ok.gov/odot/Programs_and_Projects/8_Year_Construction_Work_Plan/
- County Improvements for Roads and Bridges (CIRB): http://www.okladot.state.ok.us/cirb/index.htm
- Oklahoma Rail Plan: http://www.okladot.state.ok.us/rail/rail-plan/pdfs/2012_RailPlan.pdf
- City of Woodward Comprehensive Plan

Public involvement is an integral part of the transportation process. NORTPO is proactive in its efforts to effectively communicate with the public and in 2016, adopted a revised Public Participation Plan (PPP) (on NORTPO website) to ensure that the transportation planning process and procedures complies with federal requirement for public to take an active role in the decision making process.

NORTPO hosted two public meetings in Woodward County, and provided notice of availability for public outreach to involve interested parties in the early stages of the plan development. Surveys were distributed at the stakeholders meetings, held at High Plains Technology Center and Woodward Chamber of Commerce. They were available on NORTPO's website (www.nortpo.org), and is shown in Appendix E.

CHAPTER 6

Transportation Recommendations

This chapter identifies the recommendations and summary of improvements that were developed as a result of the previous review of demographics, growth, activity generators, transportation system, survey information, existing plans (such as, Emergency Operation Procedures, Hazard Mitigation Plans, Capital Improvement Plans, etc.) and other such issues. The information provided in the LRTP is to provide guidance on recommended projects, studies and plans. It is assumed that only those Woodward County projects included in the ODOT eight-year FFY2019-2026 construction program and CIRB will be constructed by the year 2039.

The projects included in the LRTP are primarily funded by ODOT; some have additional funding from local grants and/or local funds. When implementing this plan, NORTPO and its partners will continue to review potential funding sources as they become available or as projects become eligible for other sources. NORTPO 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 of 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 in order to develop a comprehensive set of solutions. Table 3.2 and Table 3.3 in the appendix shows the recommended transportation projects both funded projects from ODOT's eight-year Construction Program (2019-2026) and CIRB's five-year Construction Program (2019-2023).

Implementation policies and solutions include:

Roadway

- Plan and implement transportation systems that are multi-modal and provide connections between modes.
- Support transportation projects serving already developed locations.
- Protect cultural, historical, scenic resources.
- Establish a scheduled traffic count and reporting system for the region.
- Develop a regional freight plan.
- Improve infrastructure to support emergency response and evacuations.
- Utilize ODOT's bridge rating system as a tool to identify marginally sufficient structures.
- Collect and review data from Weight in Motion (WIM, aka Truck Weigh Station/Port of Entry) and identify trends.
- Participate in updates of the State Multi-modal Freight Plan.

Rail

- Collect and review incident data at rail crossings. Identify crossings for potential upgrade.

Bicycle and Pedestrian

- Develop an education safety awareness program.
- Participate in ODOT's planning efforts to develop a statewide bicycle and pedestrian plan.

Safety

- Coordinate with local governments to identify safety concerns.
- Collect and review accident data and identify trends.

Public Transportation

- Increase inter- and intra- county transit services.
- Promote transit systems providing service to major activity centers and enhance coordination among providers.
- Measure transit service and identify needs.

Planning and Community

- Coordinate with local, regional and state partners to identify type, frequency and responsibility of data collection and maintenance.
- Facilitate meetings with local and regional transportation providers and users.
- Engage the public in various methods to increase their understanding of the planning process.
- Protect the general aviation airports from encroachment of incompatible development.
- Prioritize transportation projects that serve major activity centers and freight corridors.
- Develop and maintain electronic database and mapping of environmental resources or areas of concern.
- Participate in regional and statewide planning efforts.

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 that some projects have multiple funding sources, these represent the primary sources and additional sources not listed might also be available. Additional sources could include funding from sources such as but not limited to Economic Development Administration (EDA), United States Department of Agriculture (USDA), Community Development Block Grant (CDBG), Rural Economic Action Plan Grant (REAP), Industrial Access, Lake Access, and Transportation Alternative Programs (TAP).

Committed Improvements

The ODOT eight-year Construction plan groups projects according to anticipated state and federal fund categories. With regard to 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 policy dictates 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 years. Transportation projects that are part of the ODOT 8-year plan (Table 3.2), CIRB (Table 3.3), and county lists are described in Chapter 3.

Figure 6.1 Woodward County Combined Anticipated Projects

LOCATION/DESCRIPTION	PROJECT TYPE	PROJECT YEAR	PROGRAM	PROJECT COST
US-183/US-270: from 10.5 mi. S.E. of SH-50 S.E. Approx. 3.7 mi. Lane Divided & Rehab exist lanes	Grade, Draining, Bridge & Surface	FFY2019	ODOT 8-year	$18,800,000.00
SH-34 over North Canadian River. 0.8 miles north of Jct. US-183 RW for 29449(04)	Right of Way	FFY2019	ODOT 8-year	$150,000.00
SH-34 over North Canadian River. 0.8 miles north of Jct. US-183 UT for 29449(04)	Utilities	FFY2019	ODOT 8-year	$100,000.00
CO RD on EW-51, Begin at SH-34 and extend 5.0 miles west to NS-201 RW for 28460(04)	Right of Way	FFY2019	CIRB 5-year	$10,000.00
CO RD on EW-51, Begin at SH-34 and extend 5.0 miles west to NS-201 UT for 28460(04	Utilities	FFY2019	CIRB 5-year	$10,000.00
CO RD on EW-51, Begin 5.0 mi west of SH-34 and extend 5.0 miles west CO RD 0.00 mi.	Contract P.E. (As of 10/1/2013)	FFY2019	CIRB 5-year	$100,000.00
CO RD on EW-51, Begin 10 mi west of SH-34 and extend 5.0 miles west to Ellis CL Phase III PE for 31716(04) CO RD 5.00 mi	Contract P.E. (As of 10/1/2013)	FFY2020	CIRB 5-year	$100,000.00
US-183/US-270 Beg. Approx. 14.7 mi SE of Jct. SH-3/SH-50 & Ext. SE 2.3 miles (includes new bridge at Bent Creek)	Grade, Draining, Bridge, & Surface	FFY2020	ODOT 8-year	$10,084,000.00
US-183/US-270 Beg. Approx. 17 miles S.E. of Jct. SH-3/SH-50 & Ext. SE 2.3 miles (includes new bridge at Deep Creek)	Grade, Draining, Bridge, & Surface	FFY2020	ODOT 8-year	$11,399,000.01
CO RD on EW-51, Begin at SH-34 and extend 5.0 MILES west to NS-201 Phase I COBRGE 5.00 mi.	Contract P.E. (As of 10/1/2013) Resurface	FFY2021	CIRB 5-year	$4,000,000.00
On NS-195 over BN & SF RR, 1.0 south & 1.0 west of Woodward Airport CT Beams with RR participation PE for 29795(04) COBRGE 0.20 mi.	Right of Way Bridge & Approaches	FFY2021	CIRB 5-year	$65,000.00
CO RD on EW-51, Begin 5.0 mi west of SH-34 and extend 5.0 miles west to NS-196 Phase II RW for 31714(04) CO RD 0.00 mi	Utilities	FFY2021	CIRB 5-year	$10,000.00

LOCATION/DESCRIPTION	PROJECT TYPE	PROJECT YEAR	PROGRAM	PROJECT COST
CO RD on EW-51, Begin 5.0 mi west of SH-34 and extend 5.0 miles west to NS-196 Phase II UT for 31714(04) CO RD 0.00 mi	Resurface	FFY2021	CIRB 5-year	$10,000.00
SH-34 over North Canadian river 0.8 miles north of Jct. US-183	Bridge & Approaches	FFY2022	ODOT 8-year	$6,000,000.00
SH-34: from US-412, north 0.8 miles (RW for 33361(04)	Right of Way	FFY2022	ODOT 8-year	$200,000.00
SH-34: from US-412, north 0.8 miles (UT for 33361(04)	Utilities	FFY2022	ODOT 8-year	$300,000.00
CO RD and bridge on EW-51, Begin at NS-198 and extend east 8.0 miles to Sharon Phase II COBRGE 8.00 MI.	Resurface	FFY2022	CIRB 5-year	$5,000,000.00
NS-195, Begin at EW-48 and extend 7.0 miles north 7.0 miles to SH-15 PE for 29350(04) CO RD 7.00 MI	Contract P.E. (As of 10/1/2013) Widen & Resurface	FFY2022	CIRB 5-year	$151,934.00
NS-195, Begin at EW-48 and extend 7.0 miles north 7.0 miles to SH-15 RW for 29350(04) CO RD 7.00 mi	Right of Way Widen & Resurface	FFY2022	CIRB 5-year	$20,000.00
NS-195, Begin at EW-48 and extend 7.0 miles north 7.0 miles to SH-15 UT for 29350(04) CO RD 7.00 mi.	Utilities Widen & Resurface	FFY2022	CIRB 5-year	$20,000.00
CO RD on EW-51, Begin 5.0 mi west of SH-34 and extend 5.0 miles west to NS-196 Phase II CO RD 5.00 MI.	Widen & Resurface	FFY2022	CIRB 5-year	$4,000,000.00
CO RD on EW-51, Begin 10 mi west of SH-34 and extend 5.0 miles west to Ellis CL Phase III RW for 31716(04) CO RD 5.00 mi.	Right of Way	FFY2022	CIRB 5-year	$10,000.00
CO RD on EW-51, Begin 10 mi west of SH-34 and extend 5.0 miles west to Ellis CL Phase III UT for 31716(04) CO RD 5.00 mi.	Utilities	FFY2022	CIRB 5-year	$10,000.00
On NS-195 over BN & SF RR, 1.0 south & 1.0 west of Woodward Airport CT Beams with RR participate PE for 29795(04) COBRGE 0.20 mi	Contract P.E. (As of 10/1/2013) Bridge & Approach	FFY2023	CIRB 5-year	$65,000.00
CO RD on EW-51, Begin 5.0 mi west of SH-34 and extend 5.0 miles west to NS-196 Phase II CO RD 5.00 mi	Widen & Resurface	FFY2023	CIRB 5-year	$4,000,000.00
SH-34: from US-412, north 0.8 miles	Grade, Drain, & Surface	FFY2025	ODOT 8-year	$6,000,000.00

Conclusion

This plan will be used to develop and implement programs to enhance the county and region's multi-modal transportation system, providing the public and businesses safe, convenient, affordable and environmentally responsible transportation choices. NORTPO will work with elected officials, various state and federal agencies, and public and private stakeholders, as it is the intent of this plan to also encourage communities to invest in improving their streets, ensuring the transportation network is a high-performing system for economic competitiveness for the next 20 years.

APPENDICES

Appendix A

Acronyms

ACS	American Community Survey (Census)
ADA	Americans with Disabilities Act
AWOS	Automated Weather Observation System
CDBG	Community Development Block Major
CIRB	County Improvements for Roads and Bridges
COG	Council of Government
CST	Cherokee Strip Transit
C/L	County Line
DVMT	Daily Vehicle Miles Travelled
EDA	Economic Development Administration
EJ	Environmental Justice
FAST	Fixing America's Surface Transportation Act
FHWA	Federal Highway Administration
FTA	Federal Transit Administration
GIS	Geographic Information System
HTF	Federal Highway Trust Fund
IRR	Indian Reservation Road
LAUS	Local Area Unemployment Statistic
LOS	Level of Service
LRTP	Long Range Transportation Plan
MAGB	Major, Alfalfa, Grant, Blaine (county transit system)
MI	Miles
NBI	National Bridge Inventory
NHFN	National Highway Freight Network
NHPP	National Highway Performance Program
NHS	National Highway System
NODA	Northern Oklahoma Development Authority
NORTPO	Northern Oklahoma Regional Transportation Planning Organization
ODOT	Oklahoma Department of Transportation
OTC	Oklahoma Tax Commission
PFN	Primary Freight Network
PHFS	Primary Highway Freight System
POE	Points of Entry
PWP	Planning Work Program
REAP	Rural Economic Action Plan

ROADS	Rebuilding Oklahoma Access and Driver Safety
RTPO	Regional Transportation Planning Organization
SHSP	Strategic Highway Safety Plan
STF	State Transportation Fund
STP	Surface Transportation Program
STRACNET	Strategic Rail Corridor Network
TAP	Transportation Alternative Program
TAZ	Traffic Analysis Zone
USDA-RD	US Department of Agriculture Rural Development
WIM	Weight in Motion

Appendix B - 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.

Americans with Disabilities Act of 1990 (ADA) – Federal law which requires accessible public transportation services for persons with disabilities, including complementary or supplemental paratransit services in areas where fixed route transit service is operated. Expands definition of eligibility for accessible services to persons with mental disabilities, temporary disabilities, and the conditions related to substance abuse. The Act is an augmentation to but does not supersede Section 504 of the Rehabilitation Act of 1973, which prohibits discrimination on the basis of disability against otherwise qualified individuals in programs receiving federal assistance.

Capacity – The maximum number of vehicles that can pass over a given section of a lane or roadway in one direction during a given time 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.

Class I railroad – Having annual carrier operating revenues of $250 million or more after adjusting for inflation using the Railroad Freight Price Index.

Class III or short-lined railroad – Having an annual operating revenue of less than $20 million and typically serve a small number of towns and industries or haul cars for one or more Class I railroads.

Congestion – The level at which transportation system performance is no longer acceptable to the travelling public due to traffic interference.

Culvert: A pipe or small structure used for drainage under a road, railroad or other embankment. A culvert with a span length greater than 20 feet is included in the National Bridge Inventory (NBI) and receives a rating using the NBI scale.

Deck - The portion of the bridge that directly carries traffic.

Demand Response Service (DRS) – Provides travel assistance from one location to another within a specific area for medical appointments, shopping, and other basic needs destinations. The vehicles do not operate over a fixed route or on a fixed schedule but in response to calls from passengers or their agents. Fares will vary based on length of trip and users are required to call in advance to make reservations. The vehicle may be dispatched to pick up several passengers at different pick-up points before taking them to their respective destinations.

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 (FC) – 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. G Grade – The slope (ratio of change in elevation to change in distance) of a roadway typically given in percent. For example, a 2% grade represents 2-feet of elevation change over a 100-foot distance.

Functionally Obsolete - A bridge term used when any of the geometric properties of a bridge are deficient such as being too narrow or load posted; any restriction of strength or weight.

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.

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

Multimodal – The consideration of more than one mode to serve transportation needs in a given 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 (NHS) – A nation-wide system of approximately 155,000 miles of major roads. The entire Interstate System is a component of the National Highway System and includes a large percentage of urban and rural principal arterials, the defense-strategic highway.

Structurally Deficient - A bridge term used when the physical condition of any of the bridge elements are lacking. These properties have a major bearing in qualifying a bridge for federal bridge replacement or rehabilitation funds.

Substructure - The portion of the bridge that supports the superstructure and distributes all bridge loads to below-ground bridge footings.

Superstructure - The portion of the bridge that supports the deck and connects one substructure element to another.

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 (TAZ) – 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 C

Performance Measures – FAST Act

Transportation performance measures data/information about the condition, use and impact of the system. The performance measures (or indicators) to track progress toward established goals.

US DOT has established performance measures and state DOTs will develop performance targets in consultation with MPOs and others. The law allows the state DOT to develop performance targets for rural and urban areas. The targets must be established in coordination with MPOs and public transit operators in areas not represented by MPOs. Seven (7) areas in which performance measures will be developed:

1. Safety – to achieve reduction in facilities and serious injuries on all public roads.
2. Infrastructure Condition – to maintain highway infrastructure assets in state of good repair.
3. Congestion Reduction – to achieve reduction in congestion on the National Highway System.
4. System Reliability – performance on the Interstate/Non-Interstate system.
5. Freight Movement – freight movement on the Interstate and
6. Economic Vitality – Environment Sustainability to enhance the performance of the transportation system while protecting and enhancing the environment
7. 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.

As a fundamental element of a performance management framework, states, MPOs and providers of public transportation will need to establish targets in key national performance areas to document expectations for future performance. The statewide and metropolitan transportation planning processes shall provide for the use of a performance-based approach to transportation decision-making to support the national goals.

Appendix D

Functional Classification and Level of Service

Functional Classification

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 particular 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 list below helps depict the hierarchy of the roadway system. As the figure indicates, local streets provide the most access to the adjacent properties, but function poorly in terms of mobility. Freeways exhibit high mobility because of speeds and volumes, serve poorly as access to adjacent roads and properties. Streets that carry higher volumes of traffic should have a limited number of “curb cuts” (driveway openings, few intersections) so traffic movement will not be impeded. 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.

The functional classification of streets is shown in Map 2.7 and includes the following functional classes: Interstate, Freeway, Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector and Rural Minor Collector. Rural roads consist of those facilities that are outside of small urban and urbanized areas. The functional classification of streets is shown on Map 2.7 and includes the following functional classes: Interstate, Freeway, Rural Principal Arterial, Rural Minor Arterial, Rural Major Collector and Rural Minor Collector.

Rural Principal Arterial – 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

Rural Minor Arterial – A rural minor arterial road includes the following service characteristics:

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

Rural Major Collector - 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 and 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

Rural Minor Collector - 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

Rural Local Road - 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

Other classifications of roadways include:

1. The National Highway System represents 4% to 5% of the total public road mileage in the US. 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, airport, international border crossings, public transportation and transit facilities, interstate bus terminals and rail and intermodal transportation facilities.

2. The Strategic Highway Network (STRAHNET). This system includes the Dwight D. Eisenhower system of Interstate and Defense Highways, identified as strategically important to the defense of the United States.

3. The National and Scenic Byways recognizes highways that are outstanding examples of our nation's beauty, culture, and recreational experience in exemplifying the diverse regional characteristics of our nation.

Level of Service

Level of service (LOS) is a quality measure describing operational conditions within a traffic stream, generally in terms of such service measures as speed and travel time, freedom to maneuver, traffic interruptions, and comfort and convenience. Street Capacity is the measure of a street's ability to accommodate the traffic volume along the street. Level-of-service range from LOS A, which 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 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 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 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 70% to 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 90% to 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 100% of capacity.

Future increases in traffic volume can be traced to population growth and land use development patterns. Capacity and LOS can also be diminished by increasing the number of access points and median cuts on the road network.

Appendix E
Stakeholder Survey Summary and Maps

Disclaimer – All comments on stakeholder surveys are included as written and do not reflect the beliefs of the NORTPO Technical Committee, NORTPO Policy Board, NODA Board of Trustees, nor NODA Staff.

Stakeholder Survey for 2039 Regional Transportation Plan

1. In which City/County do you reside? **Mooreland, Shattuck (1); Woodward (7); / Cimarron (1); Ellis (1); Harper(1); Woodward (8)**

2. In which City/County do you work? **Mooreland, OKC (1); Woodward (9) / Woodward (10)** or attend school? **N/A**

3. How many days per week do you travel to work? **7 (3) 6 (2) 5 (6) 4 () 3 () 2 ()** to school? **N/A**

4. What type of transportation do you use most often to go to work/school? (Circle one)
   Drive (alone) **(11)** Carpool () Bus Motorcycle () Bicycle Walk ()
   Other (please specify) ___

5. How many miles do you travel (round trip) for work and/or school? (Circle one)
   Less than 1 mile **(1)** 2-5 miles **(3)** 6-10 miles **(3)**
   11-20 miles () 21-30 miles () 31-50 miles **(2)** 50 miles + **(2)**

6. How much time does it usually take to travel to and from work? (Circle one)
   Less than 10 minutes **(3)** 11-15 minutes **(4)** 16-30 minutes **(2)**
   31-45 minutes **(1)** 46-60 minutes () 61 minutes + **(1)**

7. How much time does it usually take to travel to and from school? (Circle one)
   Less than 10 minutes **(4)** 11-15 minutes **(1)** 16-30 minutes **(1)**
   31-45 minutes () 46-60 minutes () 61 minutes +()

8. How many total miles do you travel for other trips per day? (Circle your response)
   Less than 1 mile () 2-5 miles **(2)** 6-10 miles **(2)**
   11-20 miles **(2)** 21-30 miles **(3)** 31-50 miles **(1)** 50 miles + **(1)**

9. What are your usual methods of transportation for other trips such as shopping, appointments, entertainment?

	Every Day	3-4 Times a Week	1-2 Times a Week	1-2 Times a Month	Never
Car (alone or with household members)	8	3			
Carpool with others				3	
Bus/Public Transportation					3
Motorcycle					3
Bicycle/Walk		1	1	1	
Other - Please list.					

10. So that we can ensure this survey has reached a variety of individuals in the community, please provide the information below (Circle your response):

Your Age Group: 18-24 () 25-34 **(1)** 35-44 **(3)** 45-54 **(3)** 55-65 **(2)** 65-74 **(2)** 75+ ()

Gender: Male **(6)** Female **(3)**

Household Income: Under $35,000 () $35,000 to $50,000 () $50,001 - $75,000 **(2)** $75,000+ **(9)**

American Indian/Alaska Native __ Asian __ Black or African American __ Hispanic __

Native Hawaiian or other Pacific Islander __ White 9 Other _____

Stakeholder Survey for 2039 Regional Transportation Plan

11. Please indicate how important each of the transportation system components is to you.

	Not Important	Somewhat Important	Important	Very Important
Improve Technology of Signals		2	7	1
Intersection Improvements			5	5
Pedestrian Facilities/Sidewalks		3	3	4
Maintenance Improvements			5	4
Bicycle Lanes	2	4	1	2
Public Transportation		3	3	3
Availability of Passenger Rail Service	3	5	1	2
Connection to State or US Highways		2	3	4
Maintenance of Bridges		1	1	7
Protecting the environment		3	3	4
Improving access to freight rail service	1	3	2	4
Providing a smooth driving surface			2	8
Improve existing roadways			2	8
Add shoulders on State or US Highways		1	4	5
Improve signs along existing roadways		1	7	2

12. Which do you think should be a priority when selecting transportation projects?

	Not Important	Somewhat Important	Important	Very Important
Supports Economic Development			4	5
Improves Safety			2	8
Reduces Congestion		1	5	4
Bicycle Lanes or Facilities	3	2	4	1
Improve Pedestrian walkways	1	1	5	3
Improves Travel Choices		3	4	2
Reduces Energy Consumption/Pollution	1	2	3	2
Improves freight movement		1	6	3
Other (specify)				

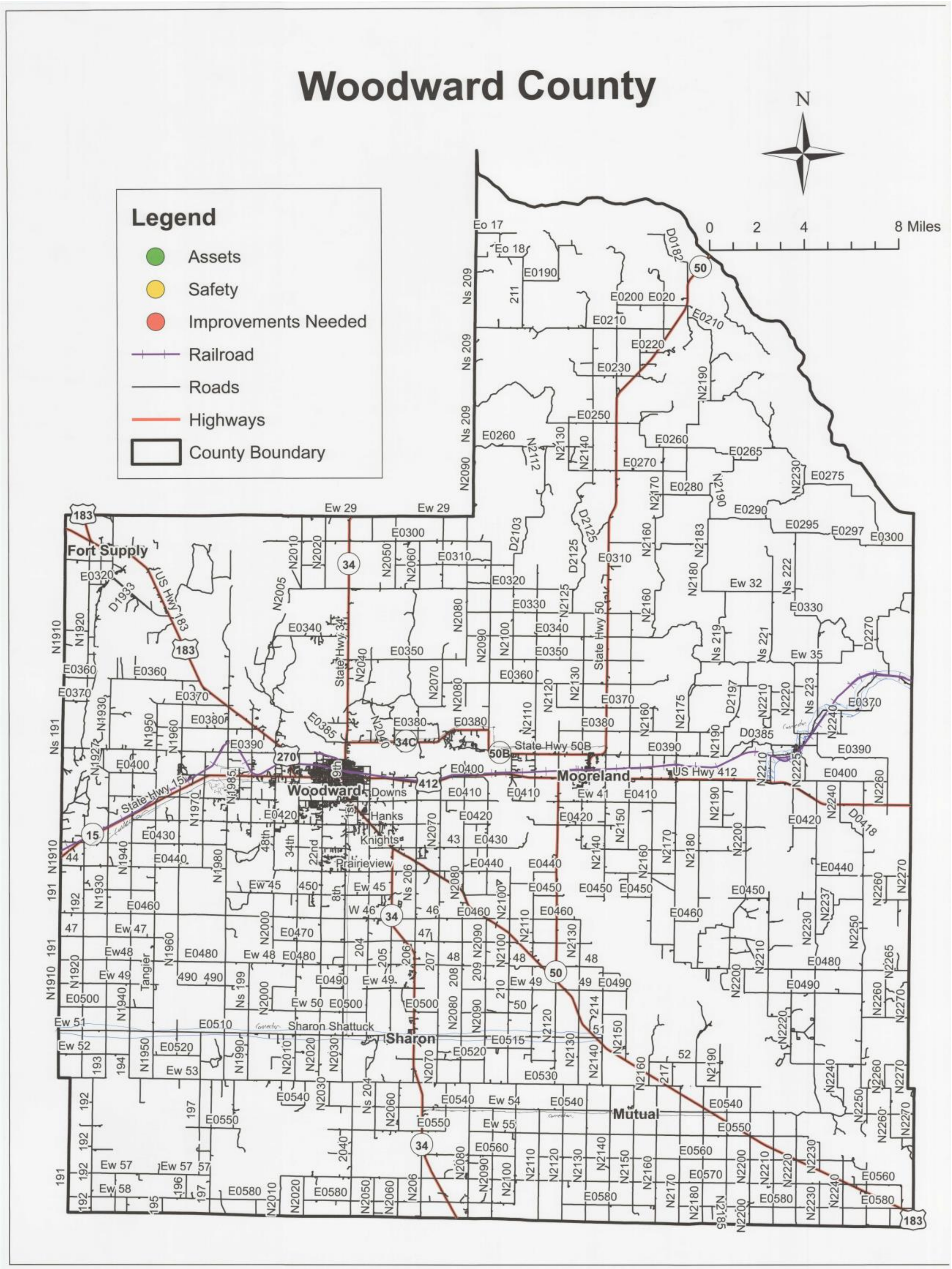
Stakeholder Survey for 2039 Regional Transportation Plan

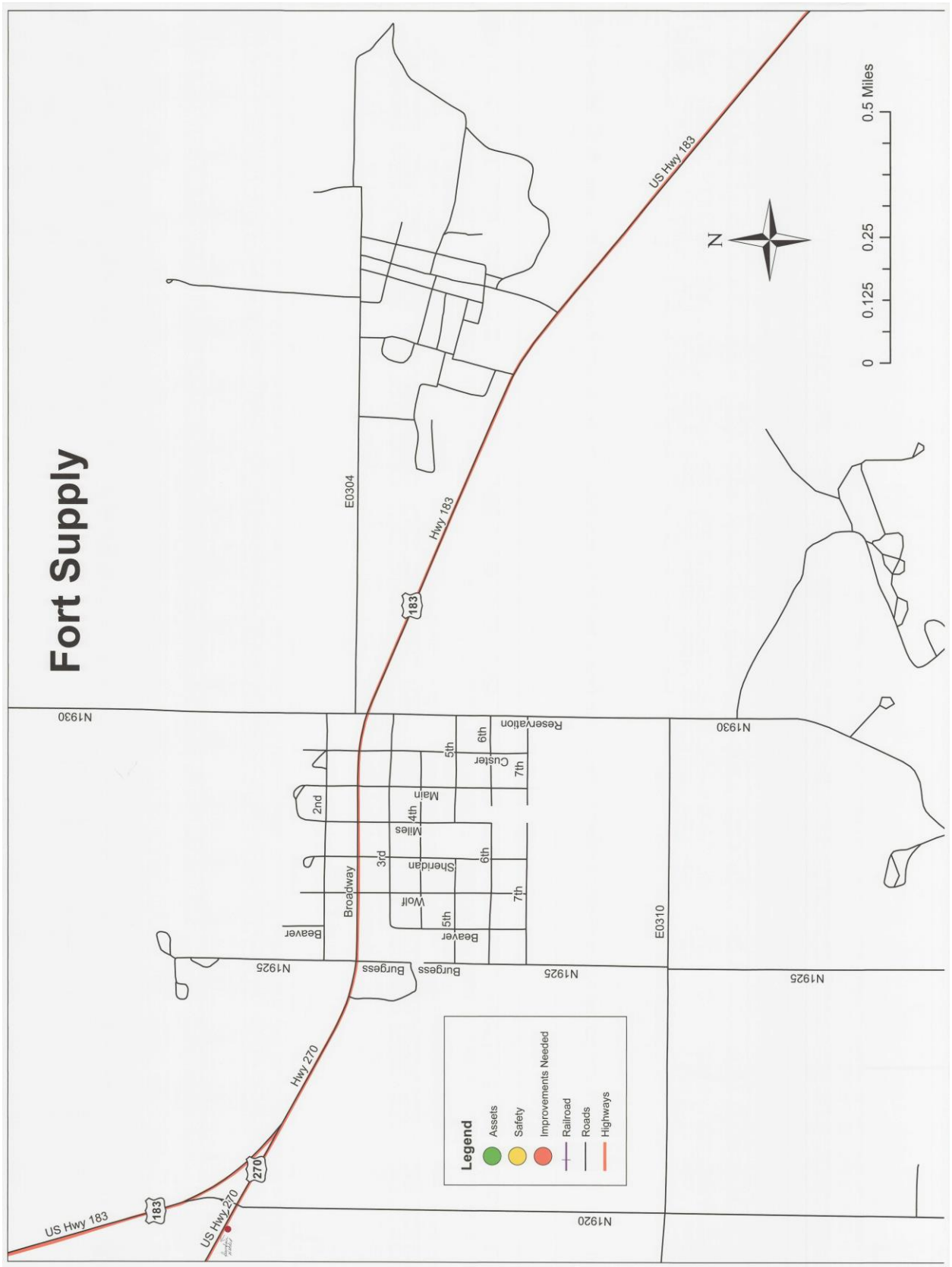
13. In your community are there challenges to accessing the transportation system? (Circle one)
    Yes **(5)** No **(2)**

    Please describe access limitations:
    Travel to Airport is 2+ hours; Options for travel without construction and options for different types of transportation; Availability; People w/ no transportation have a hard time getting from one end of town to another; No Taxis, No Mass System, No Public transportation to Enid, Tulsa, OKC.

14. **What are some specific locations with traffic problems that you encounter through the day**?
    9th St, 22nd, along main street, 34th & Hwy 412 intersection; 9th and Okla; Stoplight intersection by Walmart, Hwy 50 S of Mooreland, no sidewalks on 34th street, Horrible to no sidewalks on Hwy 270 to Walmart; Woodward City Stop lights and Bridge construction without alternative routes; Congestion at 22nd & Downs & at 22nd by Cedar Heights Elem., Oklahoma Ave & 270 by Walgreens; the free flow of traffic, huge trucks / semis, oil field traffic hard on our roads in NW Okla.

15. **Please provide additional comments regarding transportation improvement needs**:
    Hwy 270 Needs resurfaced West of Ft. Supply; Rail Service for economic development & improve citizen's ability to get to larger cities for shopping, healthcare & events, Will positively impact economy, environment & overall enjoyment of living in Oklahoma; Ways to by pass communities & cities when traveling long distances; Highschool moved to N. Elm – more crosswalks & sidewalks will be needed, better access on Elm to handle heavy traffic flow; Bike lanes & signage, Sidewalks Large To Walmart, More Public Transportation; Our Community needs public Transportation, more sidewalks, Bicycle lanes & signage; In town transportation for Citizens to School, Work, Doctor Visits – Out of town transportation for " " (School, Work, Doctor Visits), "Safety" Cacoins on Highways


Woodward County
N
0 2 4 8 Miles
Legend
Assets
Safety
Improvements Needed
Railroad
Roads
Highways
County Boundary
Fort Supply
Woodward
Mooreland
Sharon
Mutual
Downs
Hanks
Knights
Prairieview
Tangier
US Hwy 183
US Hwy 412
State Hwy 15
State Hwy 34
State Hwy 50
State Hwy 50B
183
15
34
34C
50
50B
270
412


Fort Supply
US Hwy 183
Hwy 183
183
E0304
E0310
N1930
N1925
N1920
Reservation
Custer
Main
Miles
Sheridan
Wolf
Beaver
Broadway
Burgess
2nd
3rd
4th
5th
6th
7th
Hwy 270
270
US Hwy 270
0
0.125
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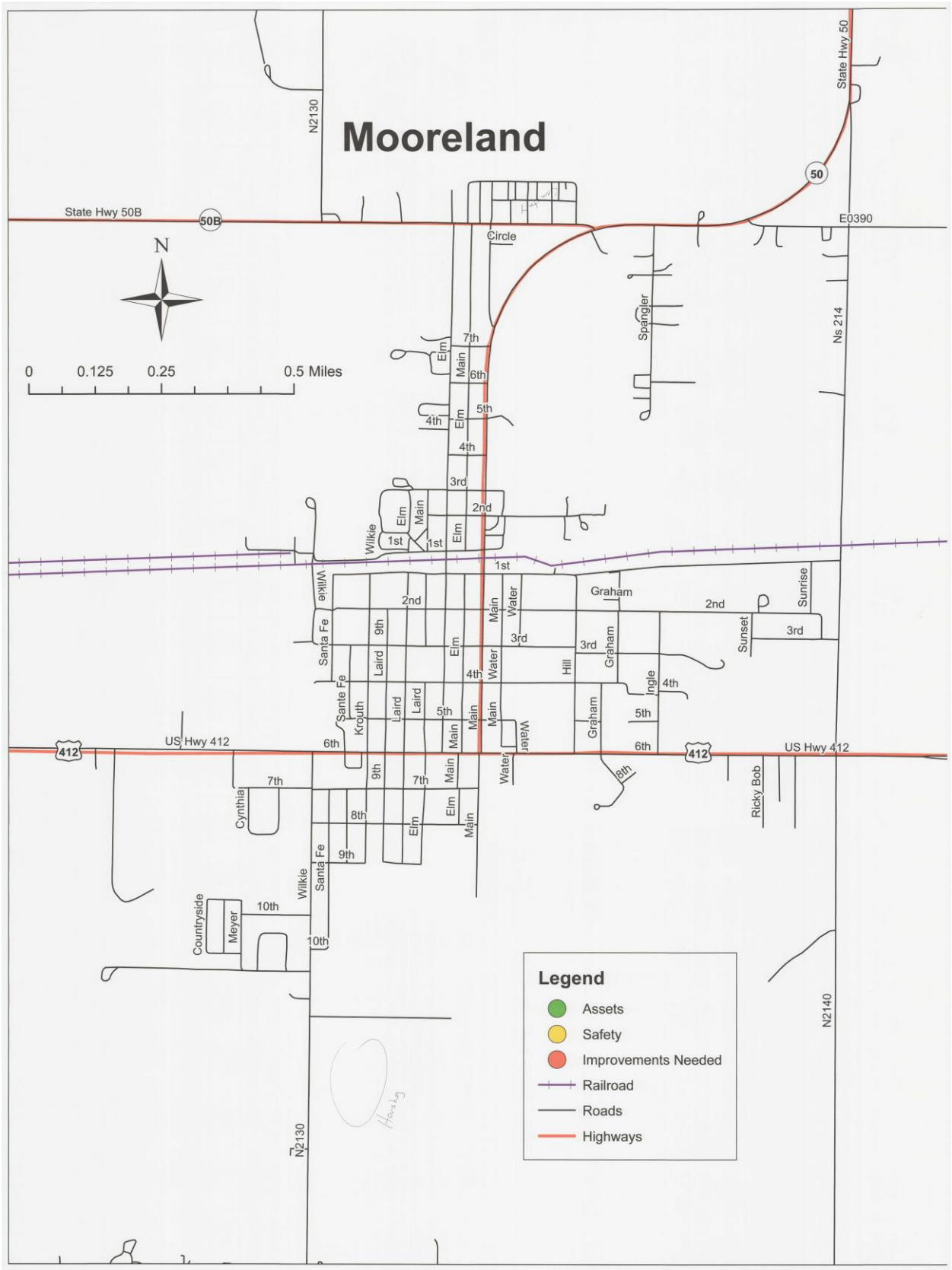
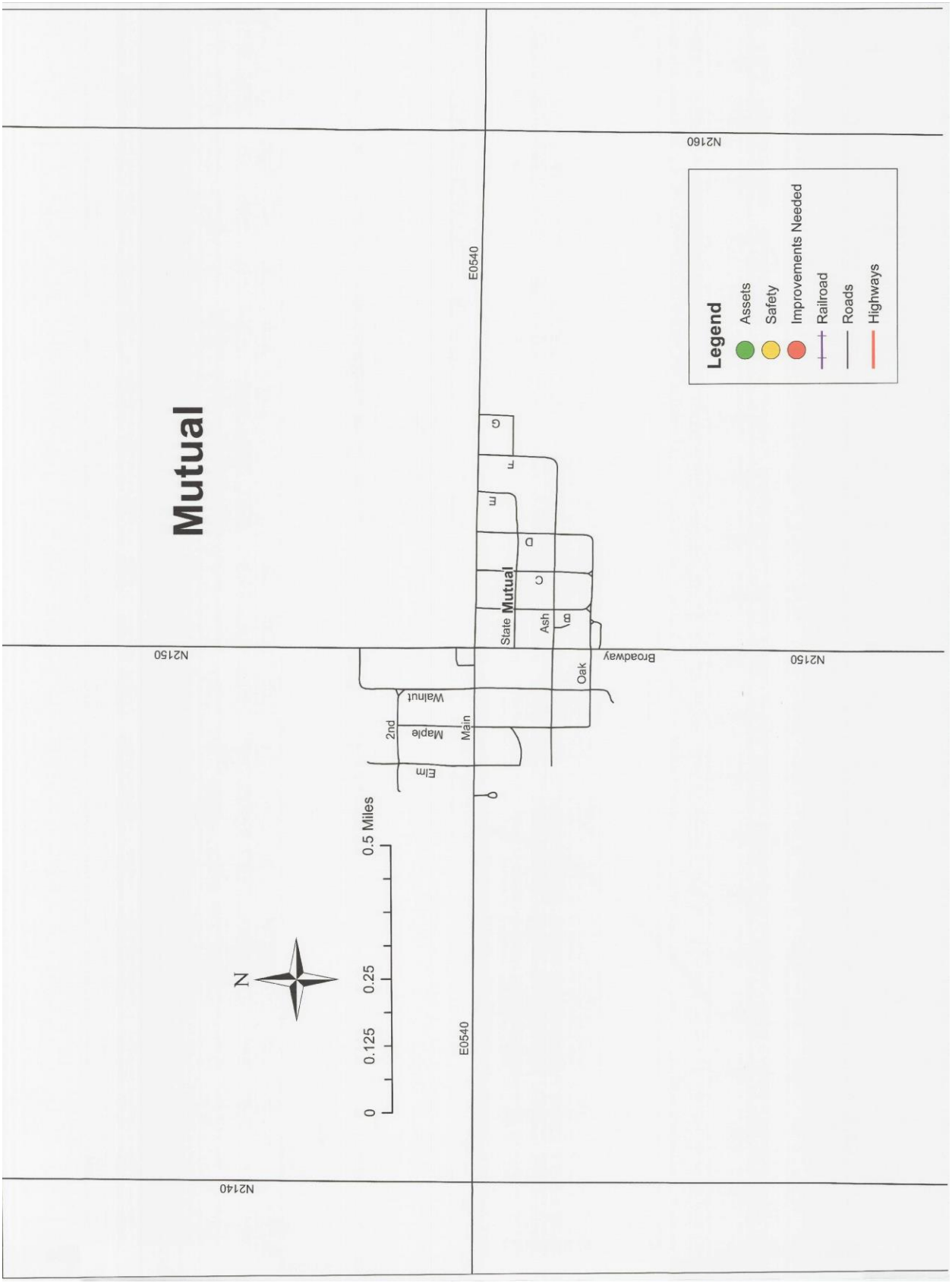
0.5 Miles
N
Legend
Assets
Safety
Improvements Needed
Railroad
Roads
Highways


Mooreland
State Hwy 50
State Hwy 50B
50
50B
E0390
N2130
N2140
Ns 214
Spangler
Circle
N
0
0.125
0.25
0.5 Miles
Elm
Main
Water
Wilkie
Santa Fe
Laird
Sante Fe
Krouth
Hill
Graham
Ingle
Sunset
Sunrise
Cynthia
Countryside
Meyer
Ricky Bob
1st
2nd
3rd
4th
5th
6th
7th
8th
9th
10th
US Hwy 412
412
Legend
Assets
Safety
Improvements Needed
Railroad
Roads
Highways


Mutual
N2160
E0540
N2150
N2140
Legend
Assets
Safety
Improvements Needed
Railroad
Roads
Highways
State
Mutual
Ash
Broadway
Oak
Walnut
2nd
Maple
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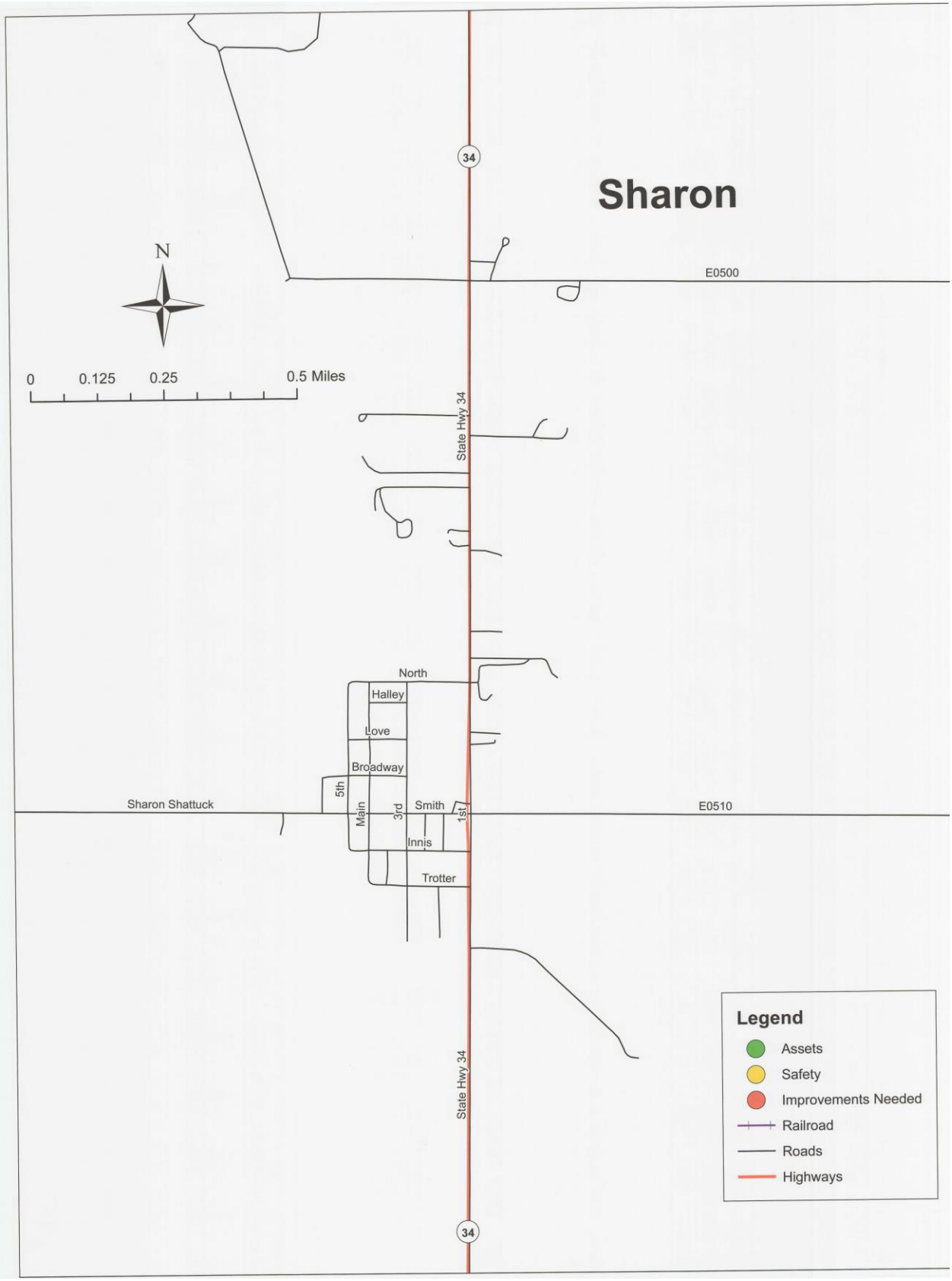
0.25
0.5 Miles


Sharon
34
N
E0500
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0.125
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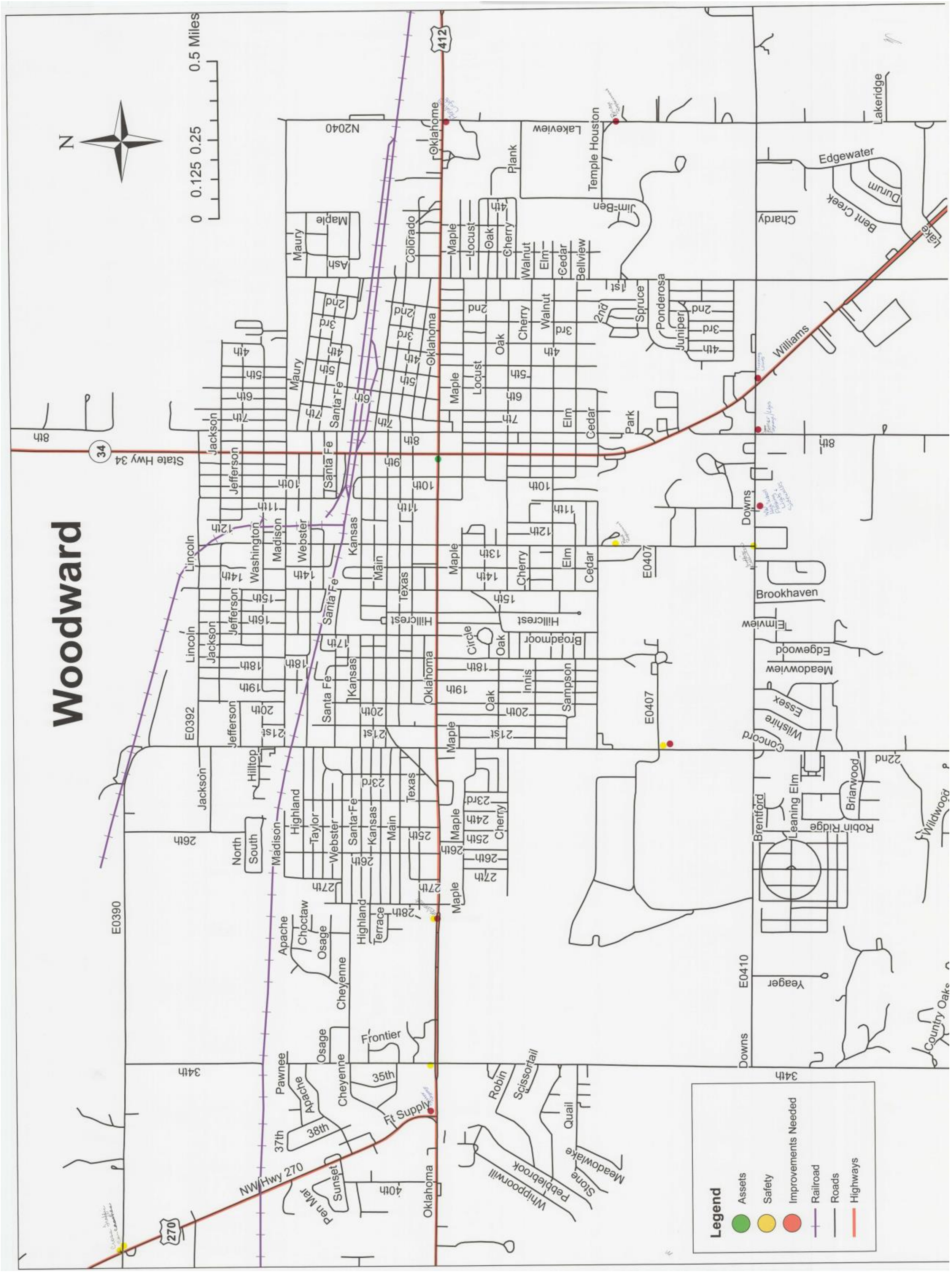
0.5 Miles
State Hwy 34
North
Halley
Love
Broadway
5th
Main
3rd
Smith
1st
Innis
Trotter
Sharon Shattuck
E0510
State Hwy 34
34
Legend
Assets
Safety
Improvements Needed
Railroad
Roads
Highways


Tangier
Legend
Assets
Safety
Improvements Needed
Railroad
Roads
Highways
N
0 0.25 0.5 1 Miles
N1960
E0380
E0390
N1950
N1940
E0400
E0400
State Hwy 15
15
N1960
E0410
Ew 41
E0410
N1950
N1960
E0420
Tangier
N1970


Woodward
0 0.125 0.25 0.5 Miles
N
Legend
Assets
Safety
Improvements Needed
Railroad
Roads
Highways
State Hwy 34
NW Hwy 270
412
34
270

Fort Supply	
Location	*Description*
W US Hwy 270/ US Hwy 183	Resurface Needed
Mooreland	
Location	*Description*
SE quadrant east of N2130, south of US Hwy 412	Comment showing housing
Mutual	
Location	*Description*
No comments	No comments
Sharon	
Location	*Description*
No Comments	No Comments
Tangier	
Location	*Description*
Corner of E0390 & N1950	*Yellow Dot* - Traffic Count/Trunk Line Road
Near E0400	Railspur
Intersection N1950 and E0410	*Yellow Dot* - Bridge over tracks
Woodward	
Location	*Description*
Intersection Oklahoma & Lakeview	*Red Dot* - Flashing lights
Lakeview near Temple Houston	*Red Dot* - Bridge Replacement
Downs and Williams	*Red Dot* - Turning Lanes
Downs and 8th	*Red Dot* - Better Signage/Lights
Downs and Woodward High School	*Red Dot* - WW High School Flashing Lights & Sidewalks
Intersection of Downs & 13th	*Yellow Dot* - Traffic Counter
13th and near Cedar	*Yellow Dot* - Road Replacement
Oklahoma & 9th	*Green Dot*
22nd & E0407	*Yellow Dot* & *Red Dot*
US Hwy 412/Oklahoma (McDonald's)	*Yellow Dot* & *Red Dot*
Intersection of US Hwy 412 & 34th	*Yellow Dot*
Intersection of US Hwy 412 & NW Hwy St.	*Red Dot* - Better Signage
Intersection of US Hwy 270 & Western	2 *Yellow Dots* - Cross Traffic; Car Crashes
Woodward County	
Location	*Description*
No comments from Stakeholders	No Comments from Stakeholders

Appendix F

Corresponding Websites and Plans

http://www.okladot.state.ok.us/maps/railroad/2016-2017/RRmap1_2016-17_web.pdf

http://www.fhwa.dot.gov/

www.oksafe-t.org

www.census.gov

http://geography.brucemyers.com/bridges/county/40-11

https://www.ok.gov/odot/About_ODOT/Contact_ODOT_Divisions/Strategic_Asset_&_Performance_Management_(SAPM)_Division.html

http://www.odot.org/maps/aadt/index.htm

http://www.odot.org/maps/aadt/2016/06-Blaine.pdf

https://ok.gov/odot/Bridges.html

https://www.ok.gov/odot/Funding_Transportation_in_Oklahoma.html

http://www.airnav.com/airports/us/OK

http://www.tollfreeairline.com/oklahoma.htm

http://www.tollfreeairline.com/oklahoma/woodward.htm

http://nodanet.org/cherokee-strip-transit/

http://www.magb.org/

http://www.okladot.state.ok.us/newsmedia/pdfs/freight-goods-movement.pdf

http://www.okladot.state.ok.us/p-r-div/long_range_plan/ODOT%20Freight%20Flows%20Nov2012.pdf

http://www.okhistory.org

http://www.okladot.state.ok.us/rail/rail-plan/index.htm

http://www.okstatefreightplan.com/

https://ok.gov/odot/Programs_and_Projects/Transportation_Programs/LRTP_2015-2040.html

https://nationalregisterofhistoricplaces.com/ok/Blaine/state.html

https://www.wildlifedepartment.com/wildlifemgmt/endangered/State_Listed_by_County.pdf

https://www.okwindpower.com/oklahoma-wind/wind-farms/

APPENDIX G

Maps and Tables by Chapters

Chapter 2

Chapter 3

Appendix G

Chapter 2

Table 2.1 NORTPO Counties Population Data

NORTPO Counties	2018 Estimate	2017 Estimate	2016 Estimate	2015 Estimate	2014 Estimate	2013 Estimate
Alfalfa County	5,754	5,877	5,784	5,868	5,793	5,847
Blaine County	9,485	9,680	9,777	9,833	9,896	9,720
Beaver County	5,319	5,445	5,400	5,435	5,519	5,558
Cimarron County	2,153	2,221	2,170	2,202	2,271	2,307
Dewey County	4,894	4,904	4,886	4,961	4,949	4,844
Ellis County	3,952	4,102	4,083	4,215	4,116	4,132
Garfield County	60,913	62,421	62,481	63,569	62,977	62,267
Grant County	4,326	4,458	4,497	4,523	4,496	4,528
Harper County	3,797	3,843	3,794	3,842	3,894	3,873
Kay County	44,161	45,173	45,398	45,366	45,510	45,633
Kingfisher County	15,816	15,510	15,392	15,584	15,509	15,276
Major County	7,644	7,730	7,721	7,771	7,758	7,683
Noble County	11,289	11,421	11,470	11,554	11,519	11,446
Texas County	20,455	21,409	21,131	21,379	21,677	21,959
Woods County	8,897	9,132	9,134	9,283	9,231	8,981
Woodward County	**20,222**	**21,140**	**21,111**	**21,575**	**21,518**	**21,224**
NORTPO Region	229,077	234,466	147,128	164,059	163,458	162,400
Oklahoma	3,943,079	3,896,251	3,875,589	3,911,338	3,879,610	3,850,568

Source: US Census Bureau

Table 2.2 Woodward County Growth Chart 1980-2018 ACS Estimate

	1980	1990	2000	2010	2018
Oklahoma	2,328,284	2,559,229	3,025,290	3,145,585	3,943,079
Woodward County	**20,998**	**18,654**	**18,486**	**20,081**	**20,222**
Fort Supply	559	365	328	330	328
Mooreland	1,383	1,188	1,226	1,190	1,179
Mutual	135	68	76	61	60
Sharon	171	108	122	135	133
Woodward	13,781	12,511	11,853	12,051	12,162
Remainder of County	4,969	4,414	4,881	6,314	6,360

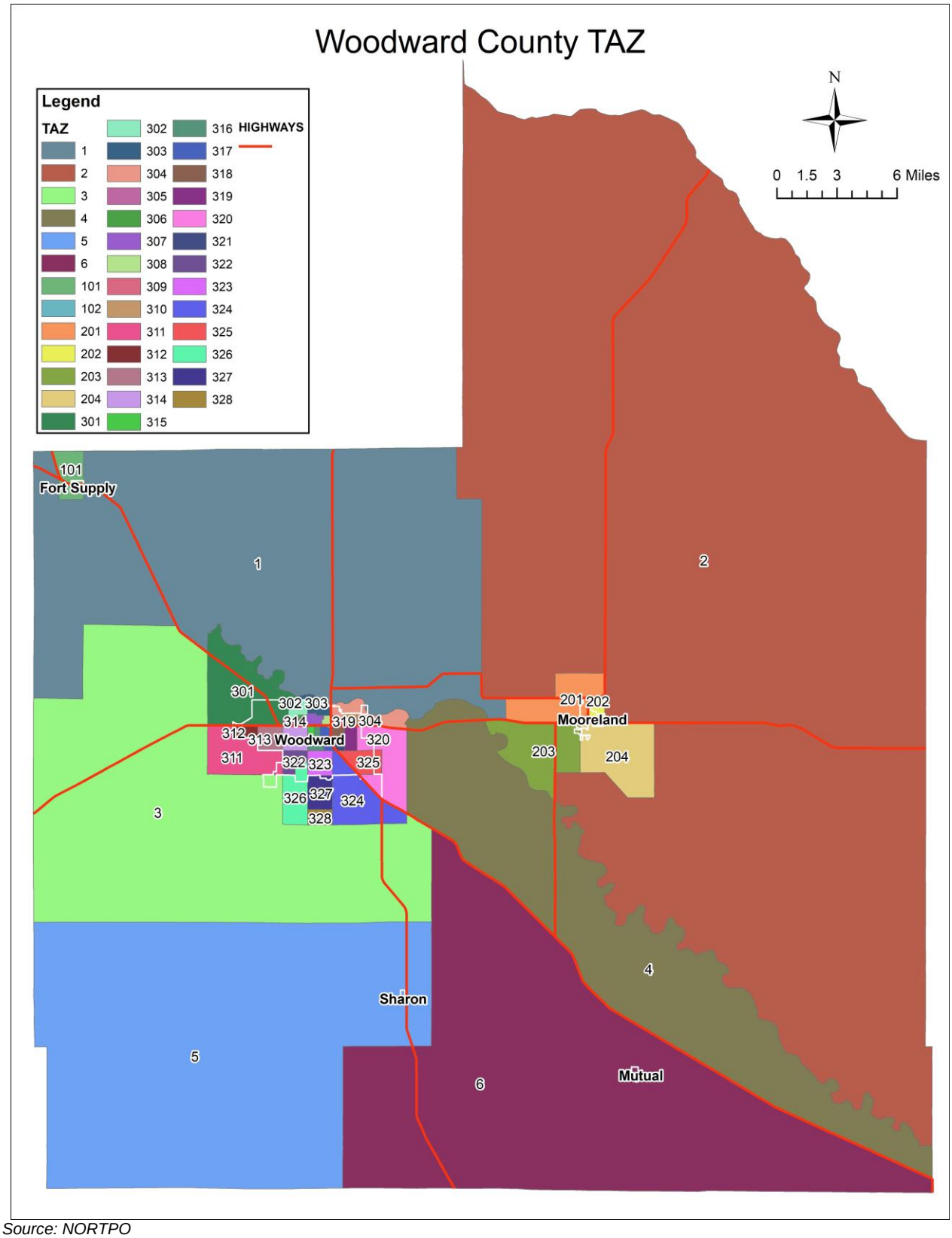
Source: American Community Survey

Table 2.3 Vehicle Registration Chart

	2013	2014	2015	2016	2017	2018
Automobile	18,073	18,608	18,198	18,031	17,695	17,373
Commercial Trailer	652	545	488	699	829	1,144
Commercial Truck	2,025	2,097	1,973	1,554	1,554	1,514
Commercial Truck Tractor	237	218	249	243	228	247
Farm Truck	2,195	2,239	2,214	2,185	2,098	2,079
Motorcycles	1,183	1,186	1,145	1,192	1,072	1,040

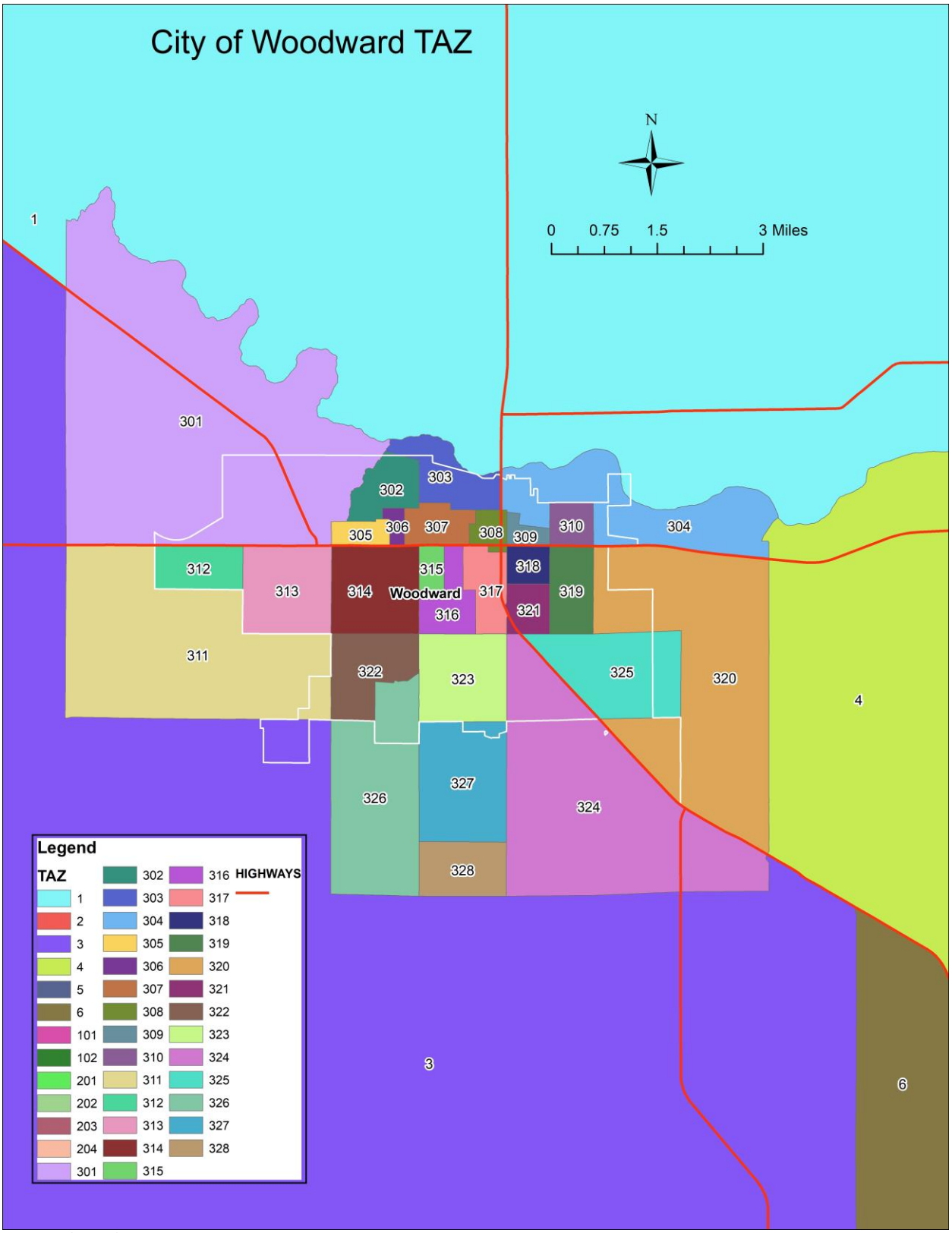
Source: ODOT

Map 2.1 – Woodward County TAZ



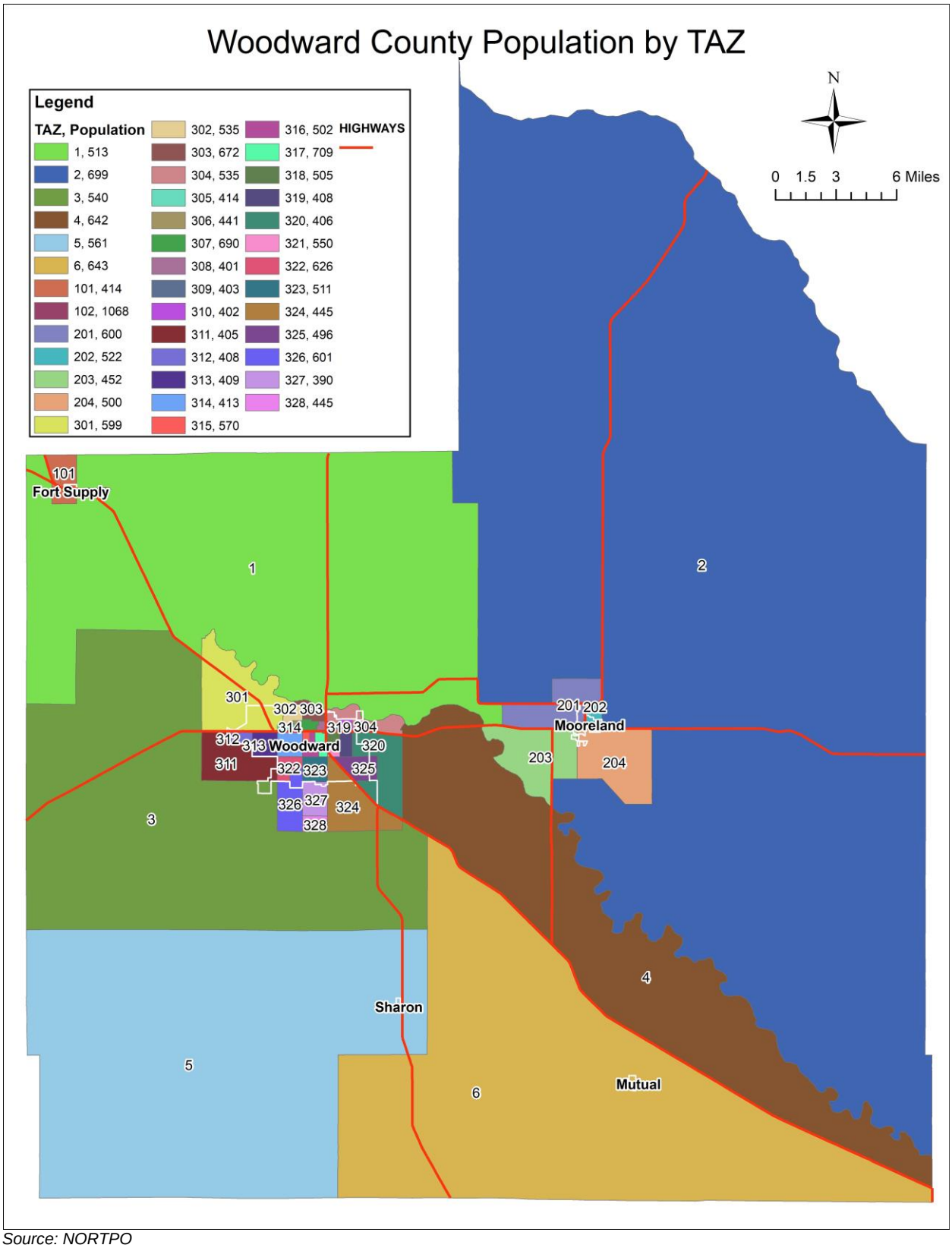
Source: NORTPO

Map 2.2 City of Woodward TAZ



Source: NORTPO

Map 2.3 Woodward County Population by TAZ



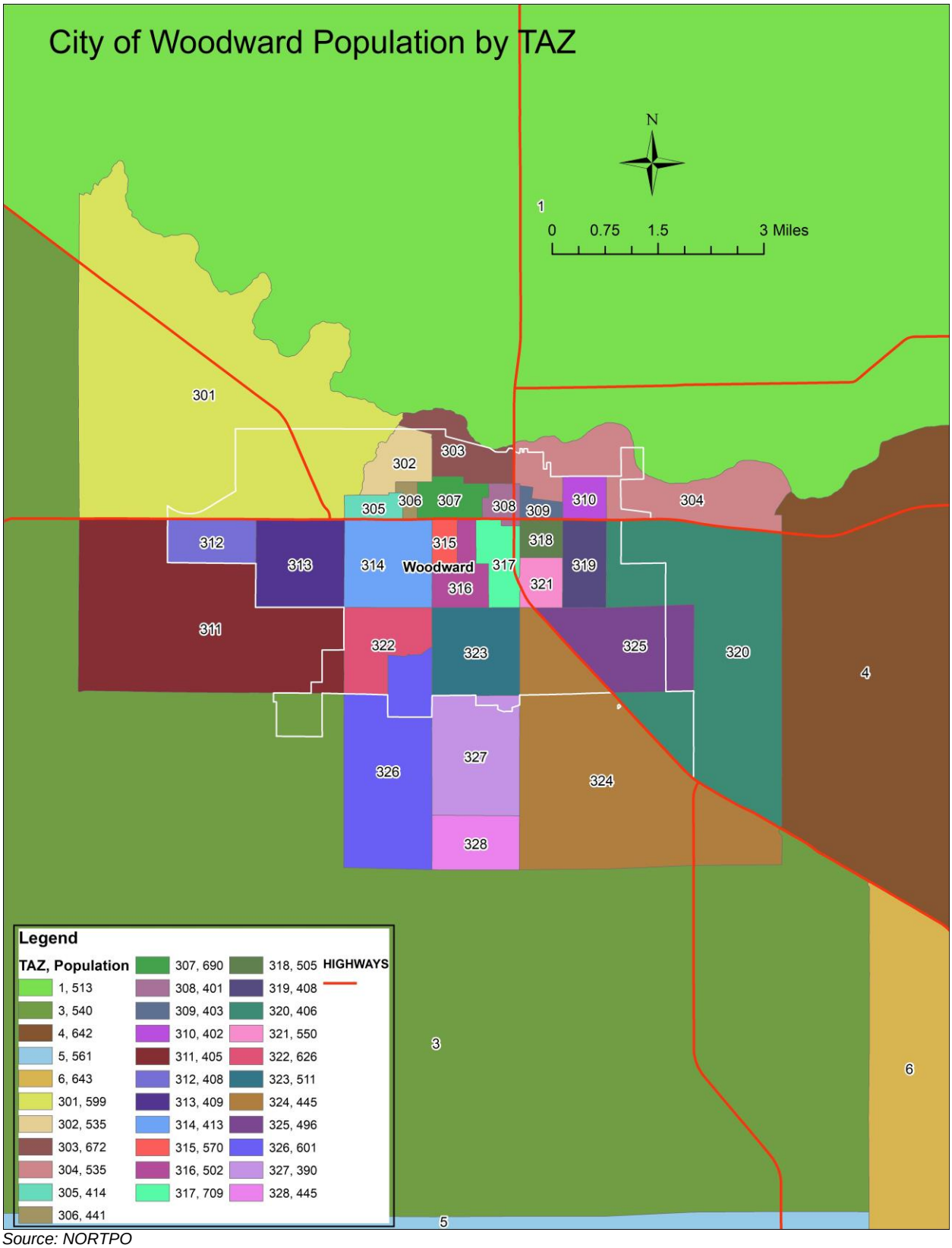
Source: NORTPO

Table 2.4 Woodward County Population by TAZ

TAZ	2017 Population	TAZ	2017 Population
1	513	309	403
2	699	310	402
3	540	311	405
4	642	312	408
5	561	313	409
6	643	314	413
101	414	315	570
102	1068	316	502
201	600	317	709
202	522	318	505
203	452	319	408
204	500	320	406
301	599	321	550
302	535	322	626
303	672	323	511
304	535	324	445
305	414	325	496
306	441	326	601
307	690	327	390
308	401	328	445

Source: NORTPO

Map 2.4 City of Woodward Population by TAZ



Source: NORTPO

Table 2.5 Woodward County Major Employers by TAZ

Employer	Address	City	# of Employees
Alliance Health	900 17th St.	Woodward	250-499
Walmart Supercenter	3215 Williams Ave	Woodward	250-499
Masonic Hall	819 1/2 Main St.	Woodward	100-249
William S Key Correctional Center	1 William S Key Blvd	Fort Supply	100-249
Roberts Ranch of Oklahoma	45075 S County Road 220	Mooreland	100-249
Woodward County	1600 Main St	Woodward	100-249
Alliance Health Medical Group	1101 Hillcrest Dr	Woodward	50-99
Atlas Drilling LLC	224 48th St	Wppdward	50-99
Baker Hughes	4620 Oklahoma Ave	Woodward	50-99
Beaver Express Svc LLC	4310 Oklahoma Ave	Woodward	50-99
CF Industries Inc	1000 Terra Dr	Woodward	50-99
Circle K Services	4915 Western Ave	Woodward	50-99
Coca-Cola Bottling Co	3003 Lakewiew Dr	Woodward	50-99
Diamond Services Co	4220 Oklahoma Ave	Woodward	50-99
Durango Services Inc	308 48th St	Woodward	50-99
Edge Services	4420 Anderson Rd	Woodward	50-99
Grace Living Ctr Woodward	429 E Downs Ave	Woodward	50-99
Irwin Auto Co	3425 Williams Ave	Woodward	50-99
J & R Transport Inc	4230 Oklahoma Ave	Woodward	50-99
Northwest Crane Svc	1008 10th St	Woodward	50-99
Northwest Electric	2925 Williams Ave	Woodward	50-99
PCS Ferguson	3510 Williams Ave	Woodward	50-99
Roc Serbice Co	415 48th St	Woodward	50-99
Sonic Drive-In	1918 Oklahoma Ave	Woodward	50-99
Stock Exchange Bank	1117 10th St	Woodward	50-99
United Supermarkets	2821 8th St	Woodward	50-99
UPS customer Ctr	3755 Washington Blvd	Woodward	50-99
Westoak Production Svc Inc	199707 E County Road 39	Woodward	50-99
Woodward High School	2406 13th St	Woodward	50-99
Woodward Livestock Auctn Co	900 Lakeview Dr	Woodward	50-99
Woodward Middle School	914 Oak Ave	Woodward	50-99
Alliance Health Rehab	900 17th St.	Woodward	20-49
Alliance Oklahoma Home Health	1403 Main St	Woodward	20-49
Apache Corp	15413 US Highway 270	Woodward	20-49
Atwoods	3013 Williams Ave	Woodward	20-49
Basic Energy Svc	6020 Oklahoma Ave	Woodward	20-49
Beaver Express Svc LLC	2120 Webster Ave	Woodward	20-49
Braums	2802 Oklahoma Ave	Woodward	20-49
Case Wireline Svc Inc	105 48th St	Woodward	20-49
Cedar Heights Elementary	2121 Cedar St	Woodward	20-49
Woodward DHS	2119 Main St	Woodward	20-49
Coldwell Banker Advanced	2003 Main St	Woodward	20-49
Corner	100 SW 6th St	Mooreland	20-49

Employer	Address	City	# of Employees
Country Side Home	1005 Main St	Woodward	20-49
Cudd Energy Svc	5656 State Highway 15	Woodward	20-49
Cudd Pressure Control	Highway 15 & W Tangier Rd	Woodward	20-49
Dairy Queen	1219 Main St	Woodward	20-49
Deepwater Chemicals Inc	196122 E County Road 40	Woodward	20-49
Equipment & Controls	5324 Oklahoma Ave	Woodward	20-49
Fort Supply Public School	302 Reservation Rd	Fort Supply	20-49
Hampton Inn	2814 Williams Ave	Woodward	20-49
High Plains	3921 34th St	Woodward	20-49
Highland Park Elementary	28th & Webster St	Woodward	20-49
Horace Mann Elementary	1610 2nd St	Woodward	20-49
Hutch's	3710 Oklahoma Ave	Woodward	20-49
Hybrid Drilling Inc	502 48th St	Woodward	20-49
Al's Steakhouse	225 E Main St	Woodward	20-49
Kline Mechanical Inc	1301 Main St	Woodward	20-49
La Quinta Inn-Suites Woodward	3410 Williams Ave	Woodward	20-49
Light House	5050 Williams Ave	Woodward	20-49
Longshots Bar & Grill	810 Main St	Woodward	20-49
Mazzio's	1101 Oklahoma Ave	Woodward	20-49
MBT Directional Drilling	2417 Richmond Rd	Woodward	20-49
McDonald's	2720 Oklahoma Ave	Woodward	20-49
McKay ford Lincoln	3119 Williams Ave	Woodward	20-49
Mid First Bank	3215 Williams Ave	Woodward	20-49
Mooreland Elementary School	300 N Elm St	Mooreland	20-49
Moreland Heritage Manor	402 SE 6th St	Mooreland	20-49
Mooreland Jr-Sr High School	SW 6th & Elm St	Mooreland	20-49
Sharon/Mutual Schools and Superintendent	210 S Maple St	Mutual	20-49
Northwest Crane Svc	1125 40th St	Woodward	20-49
Northwest Domestic Crisis Ctr	1024 22nd St	Woodward	20-49
Northwest Inn	3202 1st St	Woodward	20-49
OARC-Woodward Work Shop	710 Maury St	Woodward	20-49
Oklahoma Tank Lines	208696 E County Road 40	Woodward	20-49
Opportunities Inc	813 Madison Ave	Woodward	20-49
Pistol Drilling LLC	4420 Anderson Rd	Woodward	20-49
Pizza Hut	2511 Williams Ave	Woodward	20-49
Polly Anna Café	902 Main St	Woodward	20-49
Precision Pipeline Svc LLC	4033 Oklahoma Ave	Woodward	20-49
Providence Place	1109 Downs	Woodward	20-49
Razien Metals Co Inc	1002 5th St	Woodward	20-49
Riffel Law Firm	1725 Oklahoma Ave	Woodward	20-49
Roadrunner Trucking	199708 E County Road 39	Woodward	20-49
Rumors-At the Northwest Inn	3200 Williams Ave	Woodward	20-49
Select Energy Svc	612 E Oklahoma Ave	Woodward	20-49
Siemens Corp	1123 Airpark Rd	Woodward	20-49
Sonic Drive-In	1321 Main St	Woodward	20-49

Employer	Address	City	# of Employees
Stride Well Svc	1010 E Hanks Trl	Woodward	20-49
Unibridge	4902 Oklahoma Ave	Woodward	20-49
United Supermarkets	2110 Oklahoma Ave	Woodward	20-49
US Geological Survey	2000 18th St	Woodward	20-49
Vesco Inc	211 48th St	Woodward	20-49
Western Plains Youth & Family	202639 E County Rd 42	Woodward	20-49
Wildcat Drilling Svc	605 Martin Rd	Woodward	20-49
Woodward County Health Dept	1613 Texas St	Woodward	20-49
Woodward County Sherif	1600 Main St	Woodward	20-49
Woodward Fire Dept	2400 Williams Ave	Woodward	20-49
Woodward Iodine Corp	20820 E County Rd 51	Sharon	20-49
Woodward Middle School	913 Maple Ave	Woodward	20-49
Woodward Regional Hospital	900 17th St	Woodward	20-49
Ace Hardware	2807 8th St	Woodward	20-49
Wyoming Casing Svc	1020 Energy Rd	Woodward	20-49
Air Evac Lifeteam	1620 Santa Fe St	Woodward	10-19
Alliancehealth Medical Group	1715 Main St	Woodward	10-19
ANR	14070 US Highway 412	Woodward	10-19
Answering Unlimited Call Ctr	1421 34th St	Woodward	10-19
Arby's	2323 Williams Ave	Woodward	10-19
Arcrite Manufacturing LLC	1915 Oklahoma Ave	Woodward	10-19
Autozone	1117 Oklahoma Ave	Woodward	10-19
Bank7	1003 Oklahoma Ave	Woodward	10-19
Brady Trucking	520 Martin Rd	Woodward	10-19
Brinkman Realty Inc	2003 Main St	Woodward	10-19
Candlewood Suites	3350 Oklahoma Ave	Woodward	10-19
Carl's Jr	2617 Oklahoma Ave	Woodward	10-19
Carter Family Trucking LLC	400 26th St	Woodward	10-19
Cedar Ridge General Contracting	1205 18th St	Woodward	10-19
Central National Bank & Trust	2727 Williams Ave	Woodward	10-19
Chicken Express	2205 Oklahoma Ave	Woodward	10-19
Clayton Propane	22662 Highway 270	Woodward	10-19
Comfort Inn & Suites	2930 Williams Ave	Woodward	10-19
County Shop	112 N 5th St	Sharon	10-19
Covington Cycle City	2424 Oklahoma Ave	Woodward	10-19
DCP Midstream	40533 S County Road 211	Mooreland	10-19
Devine's Stationary Inc	2121 Oklahoma Ave	Woodward	10-19
Domino C-Stores	3715 Oklahoma Ave	Woodward	10-19
Excel Products	20573 E County Road 43	Woodward	10-19
Farm Credit of Western OK	3302 Williams Ave	Woodward	10-19
Farmers Insurance	1902 9th St	Woodward	10-19
Fire & Ice	198276 E County Road 41	Woodward	10-19
First Christian Church	1316 9th St	Woodward	10-19
Fort Supply Fire Dept	501 Broadway	Fort Supply	10-19
Godfather's Pizza	2820 Williams Ave	Woodward	10-19

Employer	Address	City	# of Employees
Goin's Home Furnishings Inc	101 E Oklahoma Ave	Woodward	10-19
Great Plains National Bank	2220 Oklahoma Ave	Woodward	10-19
Harper Brothers Trucking LLC	12572 US Highway 412	Mooreland	10-19
Harper Sanitation Svc Inc	1020 E Hanks Trl	Woodward	10-19
Healthback Home Health	1423 Main St	Woodward	10-19
Hearthland Compression Svc	26894 State Highway 50	Mooreland	10-19
High Plains Tire Co Inc	2220 Main St	Woodward	10-19
Highway Department	14219 US Highway 270	Woodward	10-19
Hmi-Woodward	1611 Main St	Woodward	10-19
Holiday Inn Express	3333 Williams Ave	Woodward	10-19
Hometown Quality Care	2017 Oklahoma Ave	Woodward	10-19
Hot Oil Units Inc	4230 Oklahoma Ave	Woodward	10-19
Hutch's 116	1224 Oklahoma Ave	Woodward	10-19
J-W Power Co	1307 46th St	Woodward	10-19
Jacam Chemicals LLC	206324 E County Road 44	Woodward	10-19
Jamie Gore DO	1101 Hillcrest Dr	Woodward	10-19
Jeff McIntosh Trucking	43275 S County Road 214	Mooreland	10-19
Jiffy Trip	803 9th St	Woodward	10-19
Jiffy Trip	1304 48th St	Woodward	10-19
Jiffy Trip	2510 Oklahoma Ave	Woodward	10-19
Joseph'y Coat	417 Main St	Woodward	10-19
Journy Oil Field Svc	8976 Highway 15 W	Woodward	10-19
K & S Tire Inc	3000 Williams Ave	Woodward	10-19
K101	2728 Williams Ave	Woodward	10-19
Kevin Hunter Trucking LLC	196369 E Country Road 40	Woodward	10-19
KFC	2411 Oklahoma Ave	Woodward	10-19
Kline Materials Inc	3790 State Highway 34C	Woodward	10-19
KODA Drilling Inc	318 NW Highway 270	Woodward	10-19
Kwox	2728 Williams Ave	Woodward	10-19
Landmark Fishing & Rental	4009 Oklahoma Ave	Woodward	10-19
Lane's Motor Freight lines Inc	5015 Western Ave	Woodward	10-19
Langston Plumbing & Heating	1205 18th St	Woodward	10-19
Latigo Oil & Gas Inc	5818 Oklahoma Ave	Woodward	10-19
Linde North America Inc	802 Jimar Way	Woodward	10-19
Magnet Trucking LLC	3111 Blue Sage Dr	Woodward	10-19
Mah's Garden Restaurant	3120 Williams Ave	Woodward	10-19
Mewbourne Oil Co	6535 State Highway 15	Woodward	10-19
Mid-America Painters Inc	709 48th St	Woodward	10-19
Miller Equipment & Repair Inc	4502 Western Ave	Woodward	10-19
Modern Appliance	2102 Main St	Woodward	10-19
Mooreland Volunteer Fire Debt	214 S Main St	Mooreland	10-19
Moyer Electric	Bnb Dr	Woodward	10-19
Mud Hogs LLC	1211 34th St	Woodward	10-19
N & L Trucking Inc	2407 Wildwood Dr	Woodward	10-19
Northwestern Ok State Univ	2007 34th St	Woodward	10-19

Employer	Address	City	# of Employees
Not Necessarily New	814 Main St	Woodward	10-19
O'Reilly Auto Parts	2019 Oklahoma Ave	Woodward	10-19
Oklahoma Natural Gas Co	5001 Hanks Trl	Woodward	10-19
Omni Boradcasting Co	2728 Williams Ave	Woodward	10-19
ONEOK Field Svc	1507 46th St	Woodward	10-19
ONEOK Inc	1222 8th St	Woodward	10-19
Oreange Leaf Frozen Yogurt	2714 Texat St	Woodward	10-19
Pfeifer Trucking Inc	2508 Maple Ave	Woodward	10-19
Phillips 66	1224 Oklahoma Ave	Woodward	10-19
Positive Directions	905 Main St	Woodward	10-19
Quinlan Fire Dept	102 S Main St	Mooreland	10-19
R & R Well Svc	507 48th St	Woodward	10-19
Ramiro's Mexican Restaurant	2915 Williams Ave	Woodward	10-19
Rand Trans Inc	54979 S County Road 205	Sharon	10-19
Randy's Pharmacy Inc	1310 Main St	Woodward	10-19
Red Dirt Diesel of Woodward	196077 E County Road 40	Woodward	10-19
Red Man Pipe & Supply Co	3920 Oklahoma Ave	Woodward	10-19
Rig Chasers LLC	Meadows 2 #3	Woodward	10-19
Roach Body Shop & Wrecker Svc	3800 Oklahoma Ave	Woodward	10-19
Road Runner Trucking LLC	612 22nd St	Woodward	10-19
Sharon Fire Dept	Main & Smith Ave	Sharon	10-19
Sharon-Mutual Elementary School	201 S 3rd St	Sharon	10-19
Simmons Machine Works	4516 Oklahoma Ave	Woodward	10-19
Sooner Production Svc Inc	3921 Oklahoma Ave	Woodward	10-19
SPC Fast Print and Office Products	2215 SW Main St	Woodward	10-19
Stage	2815 8th St	Woodward	10-19
Starr Lumber & Home Ctr	1811 Main St	Woodward	10-19
Stock Exchange Bank	3401 Oklahoma Ave	Woodward	10-19
Superior Home Care	1013 Main St	Woodward	10-19
Taco Bell	2411 Oklahoma Ave	Woodward	10-19
Taco Mayo	2221 Williams Ave	Woodward	10-19
Tractor Supply Co	1105 NW Highway 270	Woodward	10-19
Trucking L & T	2829 Highland Dr	Woodward	10-19
United Service Ltd	4325 Oil Patch Dr	Woodward	10-19
UPS customer Ctr	4231 1/2 Oklahoma Ave	Woodward	10-19
Valve Tech Laboratory Inc	506 48th St	Woodward	10-19
Wagg's Bar-B-Q To Go	1224 7th St	Woodward	10-19
Walmart Pharmacy	3215 Williams Ave	Woodward	10-19
Waukesha-Pearce Industries Inc	5200 Oklahoma Ave	Woodward	10-19
Wayfarer Inn	2901 Williams Ave	Woodward	10-19
Weldon Parts and Supply Inc	503 48th St	Woodward	10-19
Western Equipment	3999 Lakeview Dr	Woodward	10-19
Western Plains Youth & Family	1116 19th St	Woodward	10-19
White Dental Care	2802 8th St	Woodward	10-19
White's Welding	46005 S County Road 202	Woodward	10-19

Employer	Address	City	# of Employees
Woodward Ace Home Ctr	1118 Oklahoma Ave	Woodward	10-19
Woodward EMS	1510 Downs Ave	Woodward	10-19
Woodward Christian Academy	1901 Kansas Ave	Woodward	10-19
Woodward Clinics	1810 Kansas Ave	Woodward	10-19
Woodward Concrete Inc	4215 Oklahoma Ave	Woodward	10-19
Woodward Courthouse	1600 Main St #4	Woodward	10-19
Woodward County Jail	1600 Main St #1	Woodward	10-19
Woodward County Emergency	1510 Downs Ave	Woodward	10-19
Woodward Diesal Parts & Svc	501 NW Highway 270	Woodward	10-19
Woodward Family Medicine	1024 Main St	Woodward	10-19
Woodward Municipal Golf Course	2500 Wittaker Way	Woodward	10-19
Woodward News	904 Oklahoma Ave	Woodward	10-19
Woodward Public Schools/Superintendent	1023 10th St	Woodward	10-19
Woodward Police Dept 1219 8th St	1219 8th St	Woodward	10-19
Woodward Steel	210 48th St	Woodward	10-19
Youth Shelter	202639 E County Rd 42	Woodward	10-19

Source: NORTPO

Map 2.5 Woodward County Major Employers by TAZ

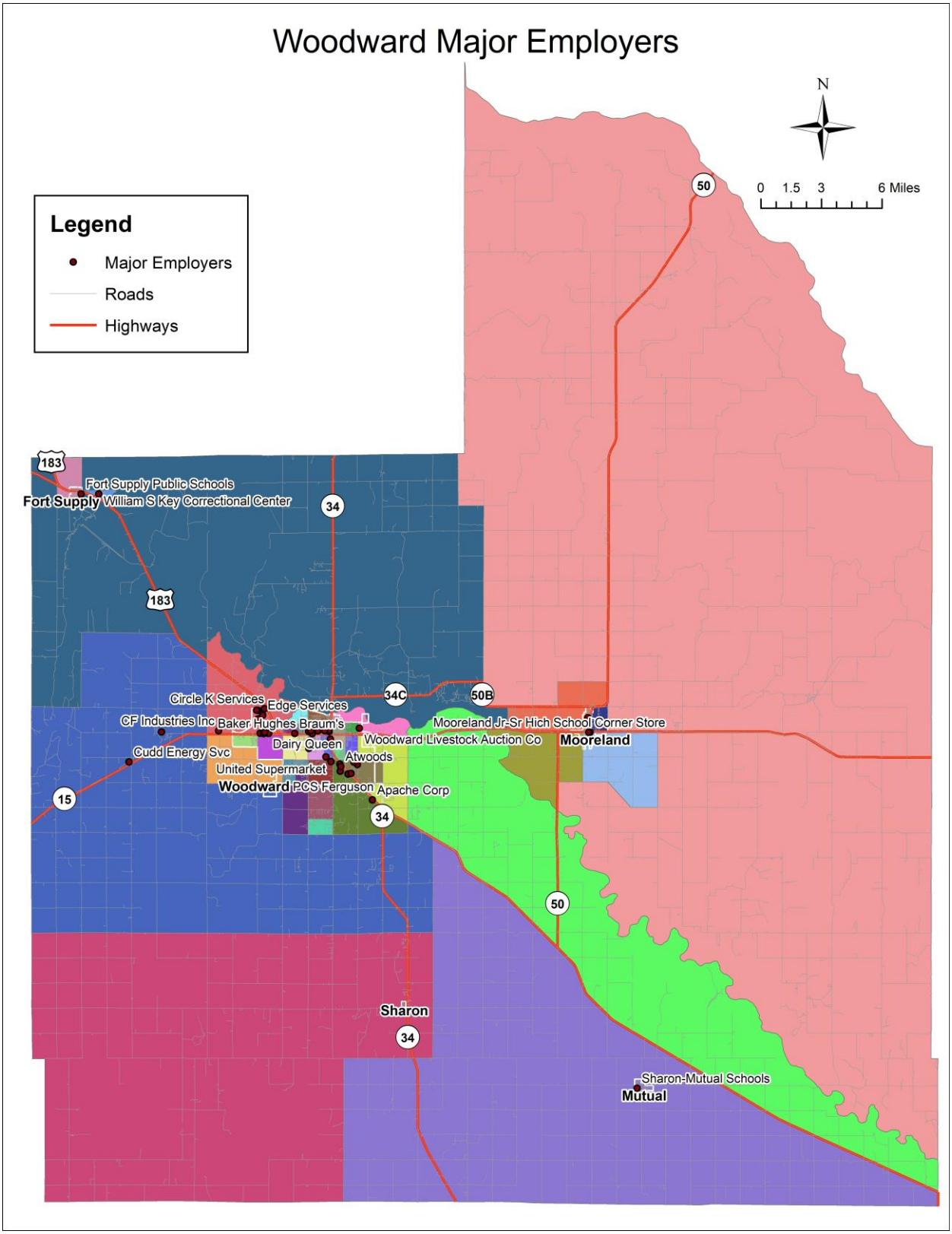
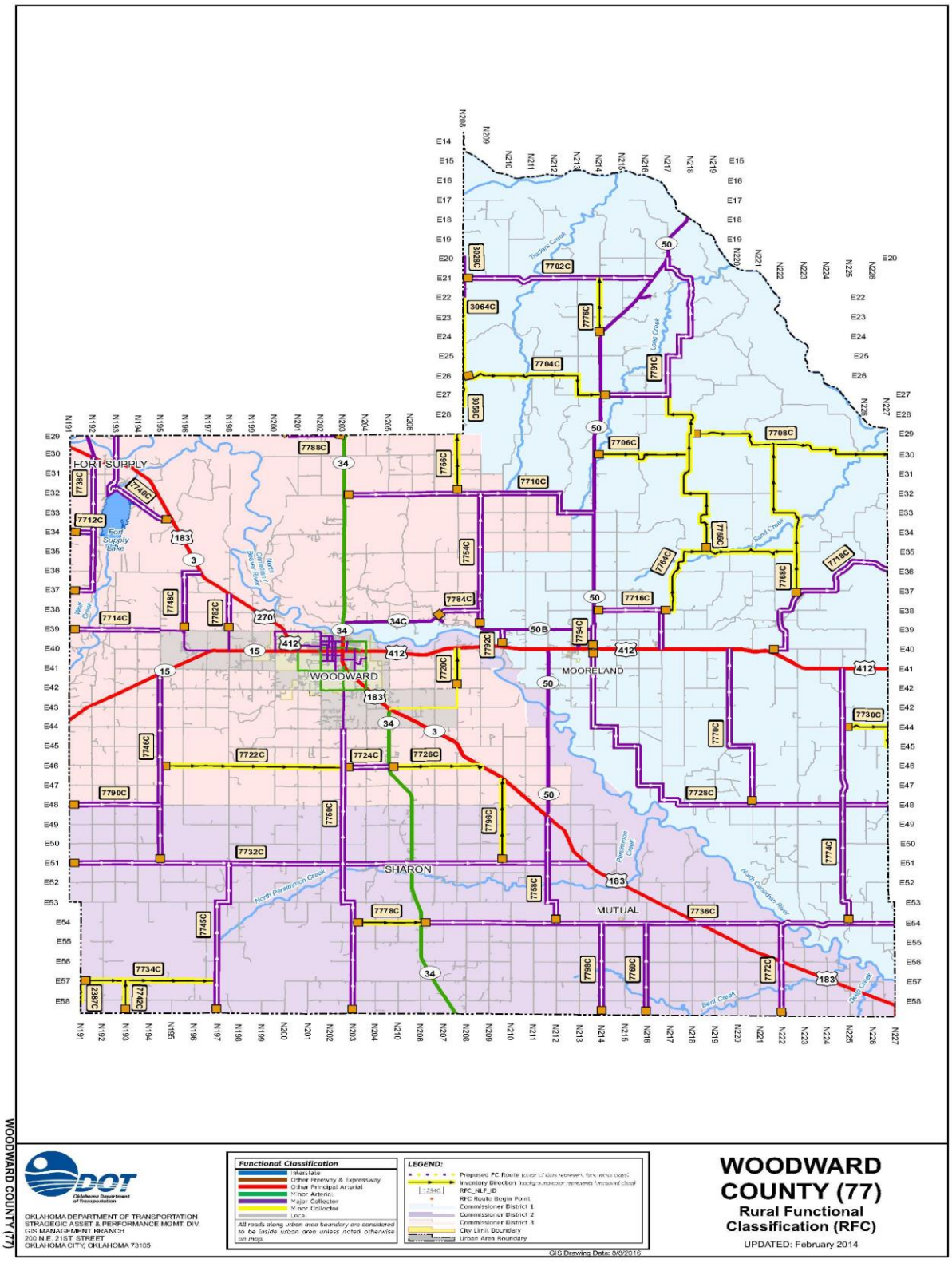


Table 2.6 Woodward County Historical Sites

Historical Site	Added	Located	Historical Function	Current Function	Owner
Fort Supply Historic District AKA Camp Supply; Western State Hospital	1971	Western State Hospital grounds , Fort Supply	Event 1875-1899, 1850-1874	Health Care	State
Stein, L. L., House AKA Bradbury Home	1983	1001 10th St., Woodward	Person, Architecture/Engineering 1918	Domestic	Private
Woodward Crystal Beach Park	1988	Jim Ben and Temple Houston St., Woodward	Event, Architecture/Engineering 1925-1949	Recreation and Culture	Local
Woodward Federal Courthouse and Post Office AKA Woodward Public Schools Administration Building	2007	1023 10th St., Woodward	Architecture/Engineering, Event 1950-1974, 1925-1949, 1900-1924	Government	Local
The Woodward Theater	2008	818 Main, Woodward	Event, Architecture/Engineering 1950-1974, 1925-1949	Recreation and Culture	Private

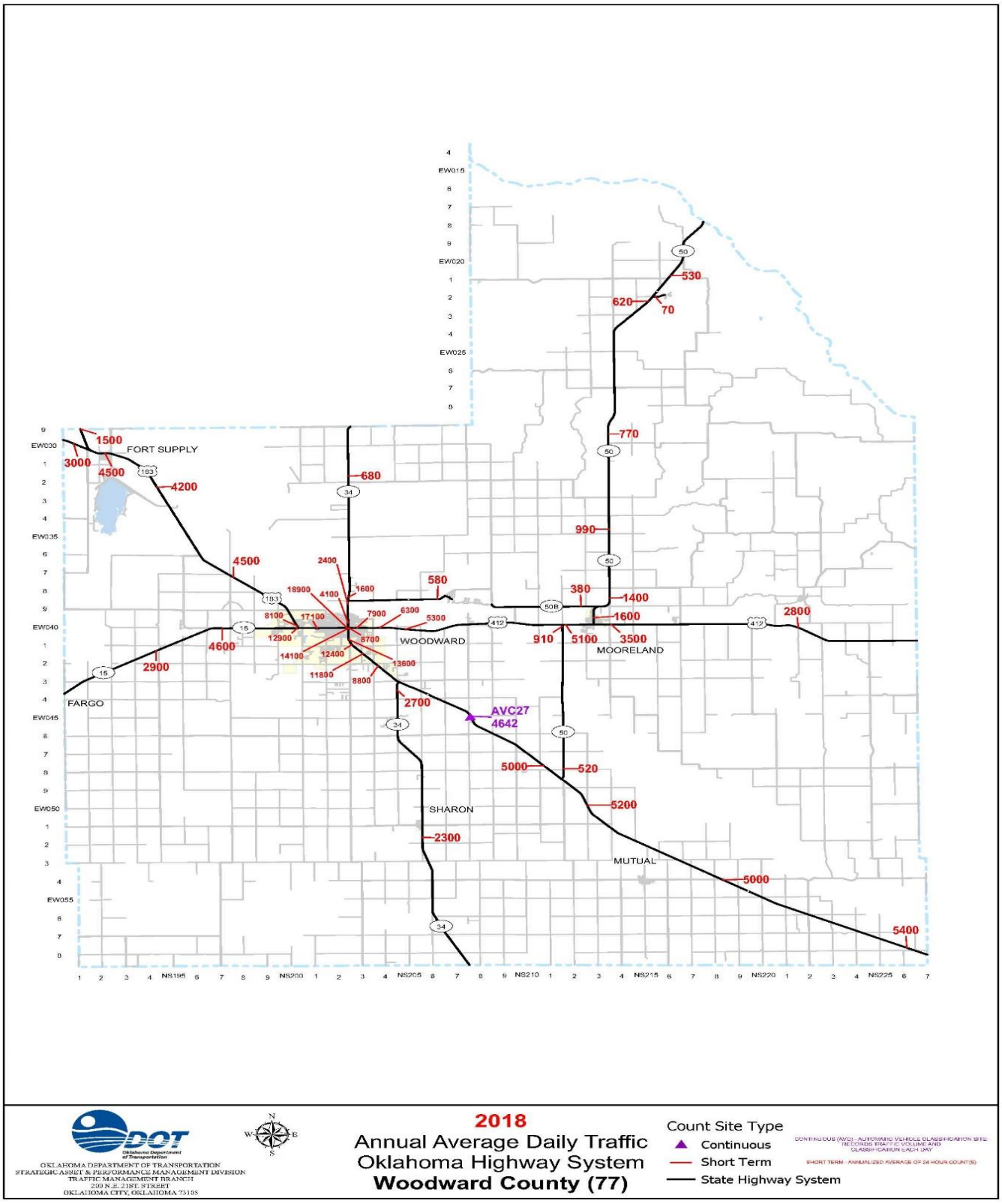
Source: https://nationalregisterofhistoricplaces.com/ok/woodward/state.html

Map 2.6 Woodward County Rural Functional Classification System



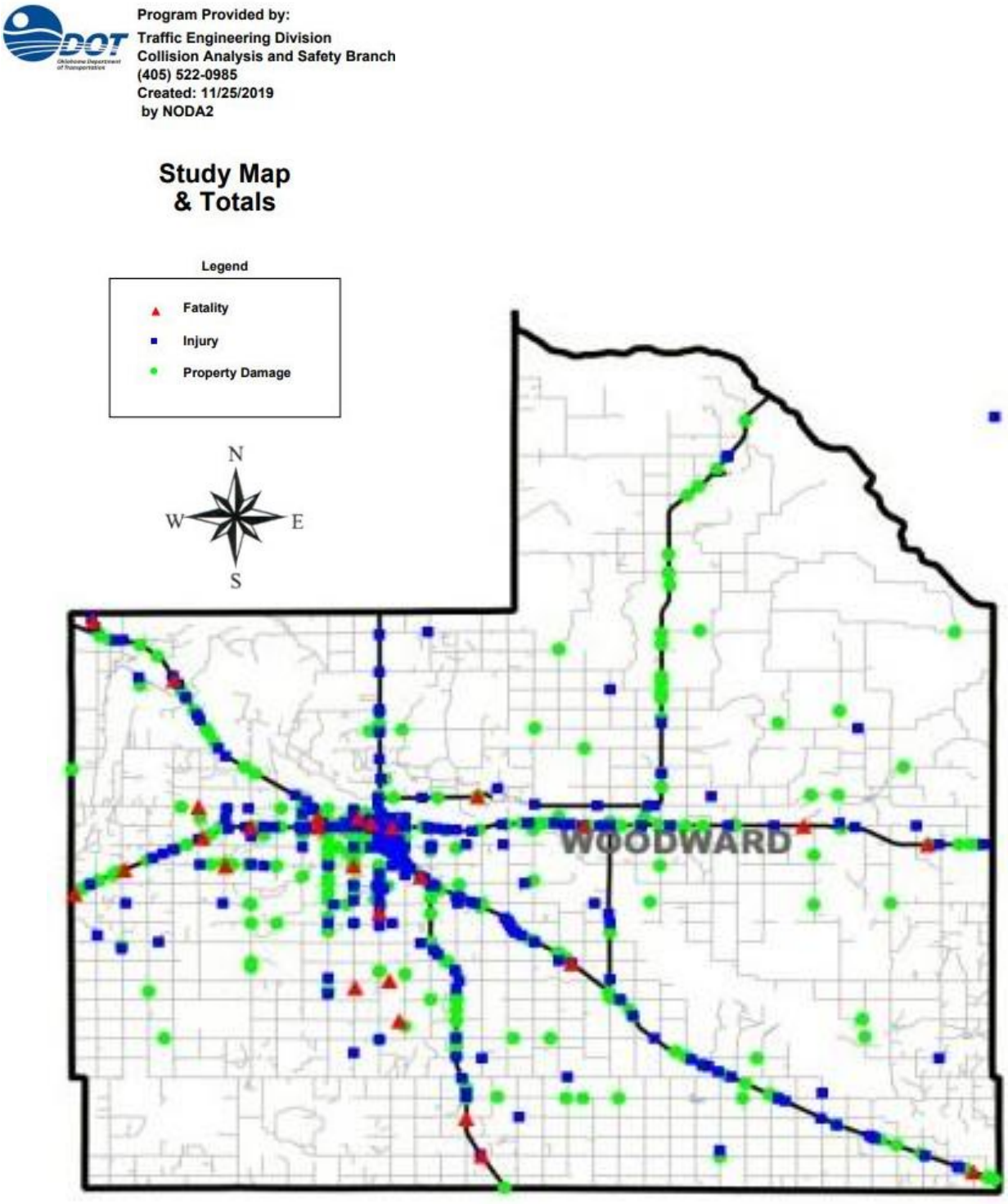
Source: ODOT

Map 2.7 Annual Average Daily Traffic, 2018



Source: ODOT

Map 2.8 Woodward County Locations of Collisions for 2013-2017



Source: ODOT

Table 2.7 Crash Data for 2013-2017

Date Range: 01-01-2013 thru 12-31-2017

	2013						2014						2015					
	Fat	SRS Inj	Non-Incap Inj	Poss Inj	PD	Tot	Fat	SRS Inj	Non-Incap Inj	Poss Inj	PD	Tot	Fat	SRS Inj	Non-Incap Inj	Poss Inj	PD	Tot
Collisions	4	7	35	56	260	362	10	13	24	48	268	363	4	2	26	54	272	358
Persons	6	9	54	82		151	10	16	45	74		145	4	4	34	72		114

	2016						2017					
	Fat	SRS Inj	Non-Incap Inj	Poss Inj	PD	Tot	Fat	SRS Inj	Non-Incap Inj	Poss Inj	PD	Tot
Collisions	4	10	16	34	218	282	5	13	21	46	168	253
Persons	6	18	26	52		102	6	14	37	71		128

	Study Total					
	Fatality	Suspected Serious Injury	Non-Incapacitating Injury	Possible Injury	Property Damage	Total
Collisions	27	45	122	238	1186	1618
Persons	32	61	196	351		640

** NONMAPPABLE COLLISIONS ARE NOT PLOTTED ON THE MAP DUE TO INSUFFICIENT LOCATION INFORMATION.

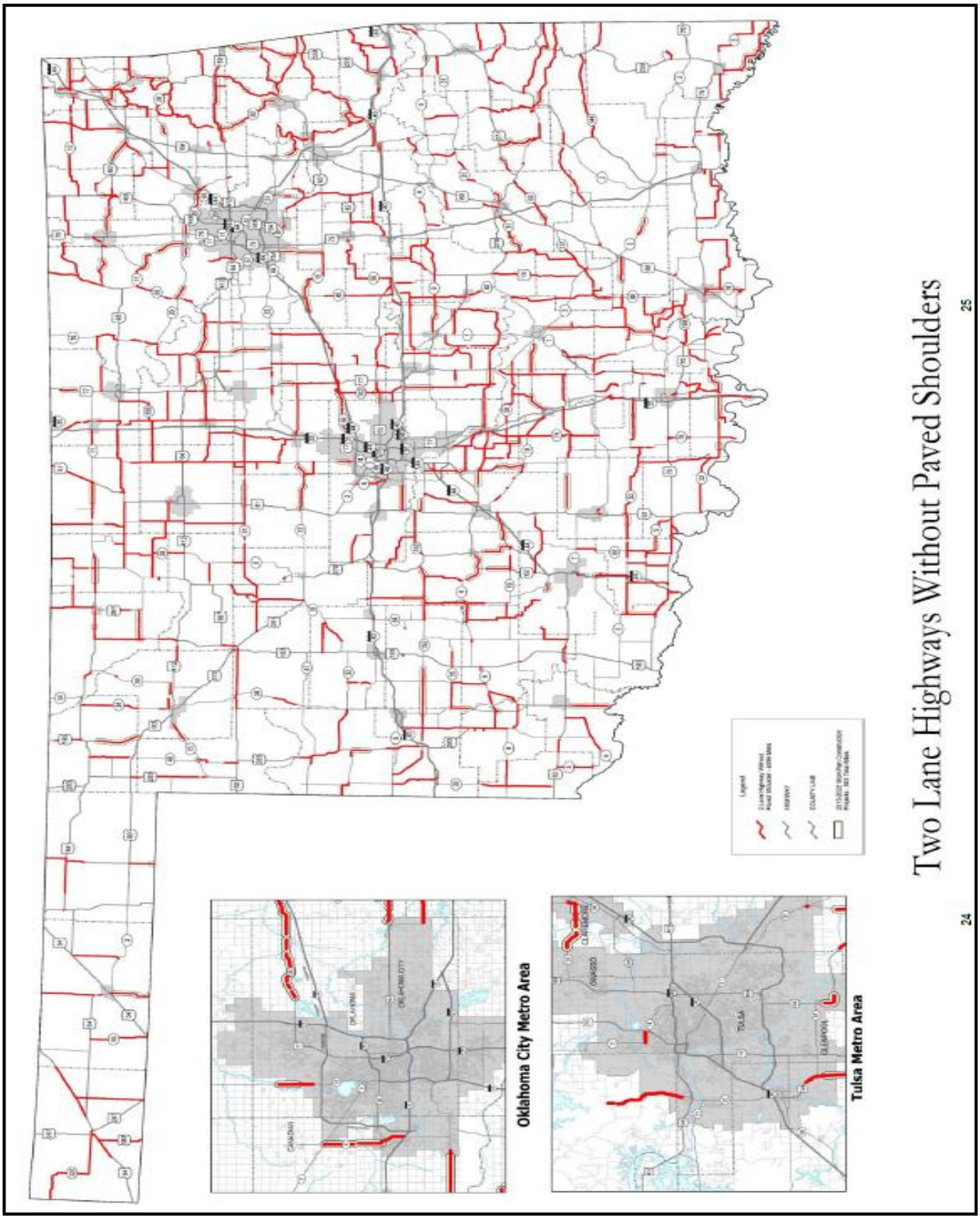
STUDY TOTALS

	HIGHWAY COLLISIONS				CITY STREET COLLISIONS				COUNTY ROAD COLLISIONS				TOTAL COLLISIONS			
Year	Fat	Inj *	PD	Tot	Fat	Inj *	PD	Tot	Fat	Inj *	PD	Tot	Fat	Inj *	PD	Tot
2013	3	62	147	212	1	22	91	114		14	22	36	4	98	260	362
2014	6	56	147	209	1	14	98	113	3	15	23	41	10	85	268	363
2015	3	50	144	197		21	109	130	1	11	19	31	4	82	272	358
2016	2	34	103	139		16	91	107	2	10	24	36	4	60	218	282
2017	4	55	94	153	1	10	66	77		15	8	23	5	80	168	253
Total:	18	257	635	910	3	83	455	541	6	65	96	167	27	405	1186	1618

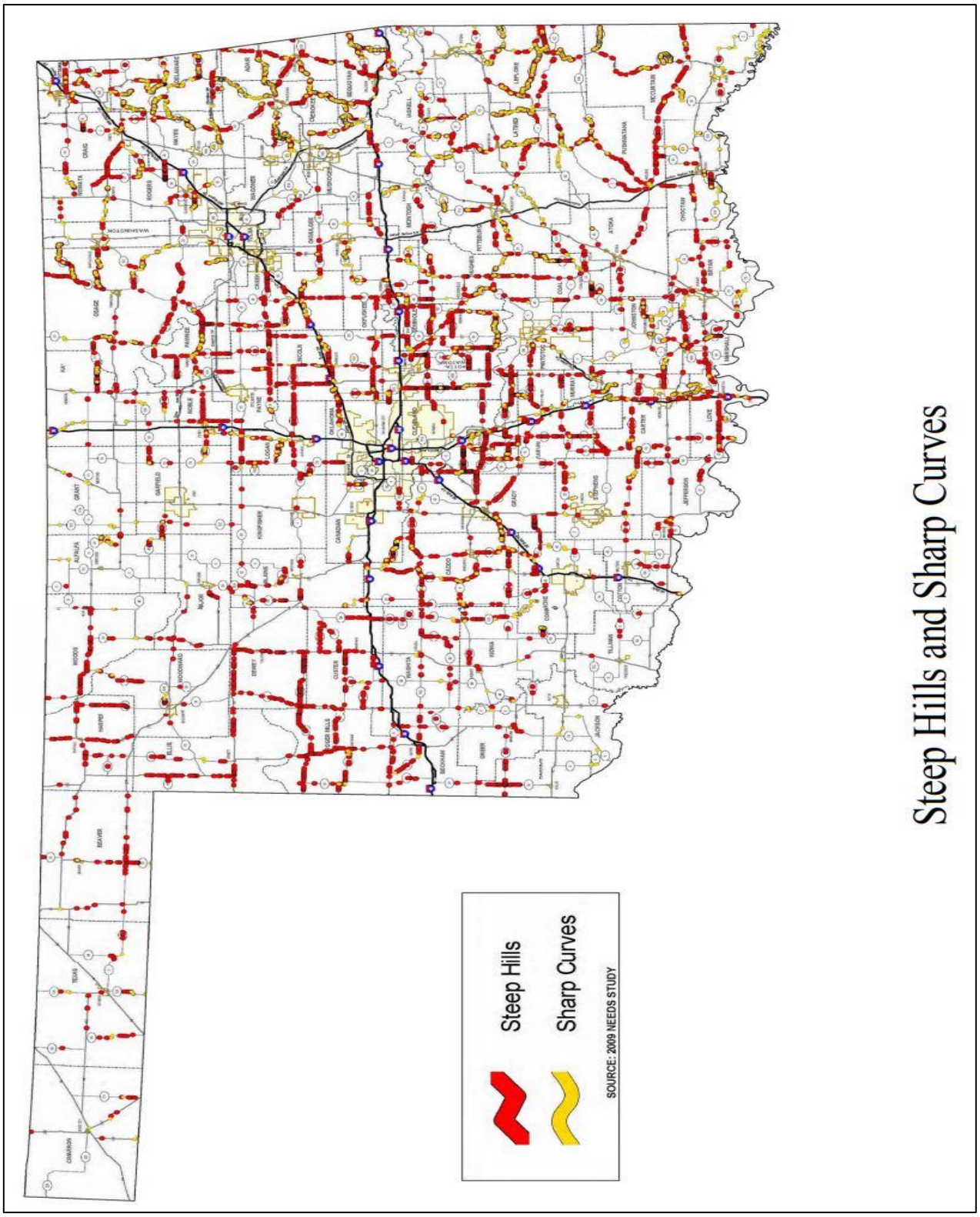
County: (77) WOODWARD

	HIGHWAY COLLISIONS				CITY STREET COLLISIONS				COUNTY ROAD COLLISIONS				TOTAL COLLISIONS			
	Fat	Inj *	PD	Tot	Fat	Inj *	PD	Tot	Fat	Inj *	PD	Tot	Fat	Inj *	PD	Tot
(00) - RURAL -	14	121	189	324					6	65	96	167	20	186	285	491
(05) MOORELAND		2	3	5			2	2						2	5	7
(20) SHARON		1	2	3			1	1						1	3	4
(25) FT. SUPPLY		2		2			1	1						2	1	3
(30) WOODWARD	4	131	441	576	3	83	451	537					7	214	892	1113
Total:	18	257	635	910	3	83	455	541	6	65	96	167	27	405	1186	1618

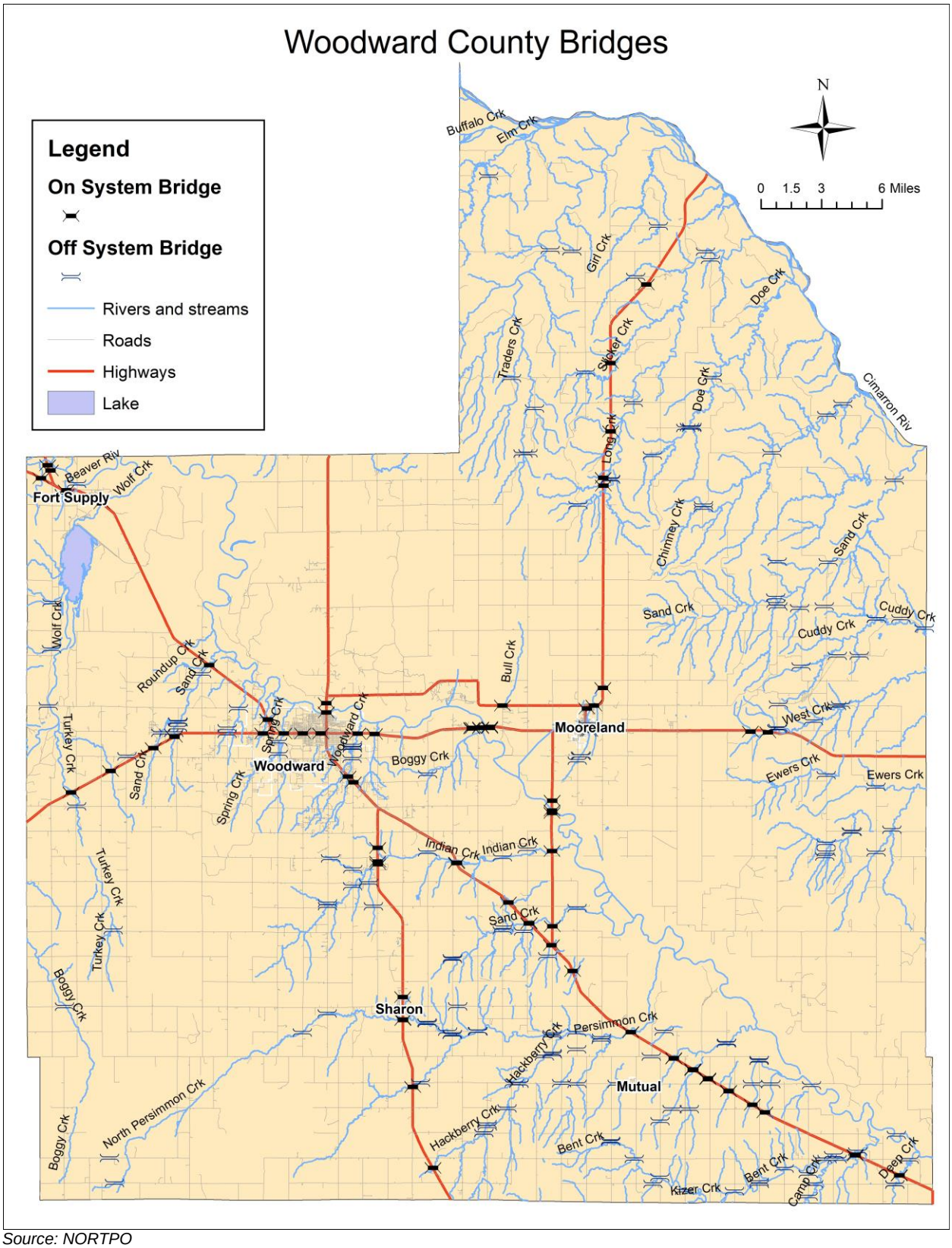
Map 2.9 Locations of Two-Lane Highways with no Paved Shoulder



Map 2.10 Steep Hill and Sharp Curves Areas of Concern (Statewide)



Map 2.11 Woodward County Bridges



Source: NORTPO

Table 2.8 Woodward County Bridges

Carries	Crosses	Location	Material	Design	Rating %	Status
S.H. 50B	CREEK	0.1 MI W JCT SH 50	Concrete	Culvert	96.9	
S.H. 50B	BULL CREEK	3.6 MI W SH 50	Concrete	Slab	91.4	
N2240	BENT CREEK	9.E 2.7S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	93.1	
N2230	CAMP CREEK	1.5E & .1S OF RICHMOND	Steel	Stringer / Multi-beam or Girder	71.3	
N2130	S. PERSIMMON CREEK	7.1E 1.1S OF SHARON	Steel	Stringer / Multi-beam or Girder	92.1	
BNSF R.R.	N1970 UNDER	5.5W OF WOODWARD	Steel	Stringer / Multi-beam or Girder		
N2030	CREEK	2.9W 4.1N OF SHARON	Concrete	Culvert	97.0	
BNSF R.R.	N2260 UNDER	AT BELVA	Wood or Timber	Stringer / Multi-beam or Girder		
N1950	BNSF R.R. UNDER	1.S 1.W OF W.W. AIRFIELD	Steel	Girder and Floorbeam system	27.9	Structurally deficient
S.H. 34	CREEK	1.5 MI N DEWEY C/L	Concrete	Culvert	89.7	
S.H. 34	SOUTH PERSIMMON CREEK	4.9 MI N DEWEY C/L	Steel	Stringer / Multi-beam or Girder	60.8	Structurally deficient
S.H. 34	NORTH PERSIMMON CREEK	7.6 MI N DEWEY C/L	Steel	Stringer / Multi-beam or Girder	60.8	Structurally deficient
S.H. 34	CREEK	8.4 MI N DEWEY C/L	Concrete	Culvert	89.7	
S.H. 34	CREEK	1.8 MI S JCT US 183	Concrete	Culvert	89.2	
U.S. 183	CREEK	1.3 MI SE HARPER CO	Concrete	Culvert	81.8	
U.S. 183	CREEK	1.6 MI NW JCT SH 34	Concrete	Culvert	80.6	
U.S. 183	CREEK	1.9 MI NW JCT SH 34	Concrete	Culvert	95.7	
S.H. 34	INDIAN CREEK	2.3 MI S JCT US 183	Steel	Stringer / Multi-beam or Girder	40.6	Structurally deficient
U.S. 183	CREEK	7.2 MI NW MAJOR C/L	Concrete	Culvert	87.0	
U.S. 183	CREEK	7.8 MI NW MAJOR C/L	Concrete	Culvert	84.0	
U.S. 183	CREEK	9.0 MI NW MAJOR C/L	Concrete	Culvert	84.0	
U.S. 183	CREEK	8.6 MI SE JCT SH 50	Concrete	Culvert	87.0	
U.S. 183	CREEK	0.1 MI N JCT SH 50	Concrete	Culvert	66.9	
U.S. 183	CREEK	0.2 MI SE JCT SH 50	Concrete	Culvert	87.0	
U.S. 183	CREEK	7.0 MI SE JCT SH 50	Concrete	Culvert	84.9	
U.S. 183	CREEK	4.5 MI E JCT SH 34	Concrete	Culvert	84.9	

Carries	Crosses	Location	Material	Design	Rating %	Status
U.S. 183	CREEK	7.9 MI SE JCT SH 50	Concrete	Culvert	84.0	
U.S. 412	CREEK	1.9 MI E JCT US 183	Concrete	Culvert	74.8	
U.S. 412	CREEK	1.2 E JCT US 183	Concrete	Culvert	70.9	
E0410	CREEK	.2S.3W1S.2E OF MOORELAND	Concrete continuous	Slab	93.1	
E0410	CREEK	.2S.3W1S.3E OF MOORELAND	Concrete continuous	Slab	82.1	
N2130	CREEK	.2S .3W 1.2S OF MOORELAND	Concrete	Slab	69.3	
E0450	BAR DITCH DRAINAGE	2.9W 6.N OF SHARON	Concrete	Slab	95.0	
N2040	INDIAN CREEK TRIB.	1.9W 4.6N OF SHARON	Concrete continuous	Slab	97.0	
U.S. 412	BULL CREEK	1.4 MI E JCT SH 50	Concrete	Culvert	67.6	
N2070	INDIAN CREEK	1.1E 6.2N OF SHARON	Steel	Stringer / Multi-beam or Girder	76.8	
N1990	CREEK	3.E OF W.W.AIRFLD ON SH15	Concrete	Culvert	97.0	
S.H. 15	CREEK	9.1 MI NE ELLIS C/L	Concrete	Culvert	84.8	
S.H. 15	CREEK	8.9 MI NE ELLIS C/L	Concrete	Culvert	84.8	
E0510	BOGGY CREEK	.5W OF KEENAN	Concrete	Slab	80.2	
S.H. 15	CREEK	3.9 MI NE ELLIS CO	Concrete	Culvert	83.8	
S.H. 15	CREEK	6.8 MI NE ELLIS C/L	Concrete	Culvert	85.0	
S.H. 15	CREEK	5.8 MI NE ELLIS CO	Concrete	Culvert	82.7	
E0400	SAND CREEK	0.2 MI E OF WW AIR PORT	Concrete	Culvert	97.0	
E0540	CREEK	3.W OF MUTUAL	Concrete	Culvert	96.0	
E0540	CREEK	4.4E 3.S OF SHARON	Concrete	Culvert	79.2	
E0540	CREEK	2.4W OF MUTUAL	Concrete	Culvert	96.0	
U.S. 412	CREEK	6.9 MI W MAJOR C/L	Concrete	Culvert	66.6	
U.S. 412	CREEK	6.2 MI W MAJOR C/L	Concrete	Culvert	86.6	
U.S. 183	CREEK	0.2 MI W JCT SH 34	Concrete	Culvert	85.1	Functionally obsolete
U.S. 183	CREEK	1.0 MI W JCT SH 34	Concrete	Culvert	78.7	Functionally obsolete
S.H. 50	BULL CREEK	1.2 MI N JCT SH 15	Concrete	Culvert	96.6	
S.H. 50	CREEK	0.8 MI N JCT SH 15	Concrete	Culvert	96.6	
S.H. 50	CREEK	12.4 MI N JCT SH 15	Concrete	Culvert	92.1	
S.H. 50	CREEK	4.2 MI S WOODS C/L	Concrete	Culvert	92.8	
S.H. 50	LONE CREEK	9.9 MI N JCT SH 15	Concrete	Culvert	92.1	
S.H. 50	CREEK	10.2 MI N JCT SH 15	Concrete	Culvert	92.1	
S.H. 50	SLICKER CREEK	14.6 MI N JCT SH 15	Concrete	Culvert	92.1	

Carries	Crosses	Location	Material	Design	Rating %	Status
E0358	CREEK	4.6E 2.8N OF QUINLAN	Concrete	Culvert	96.9	
S.H. 34	N. CANADIAN RIVER O'FLOW	1.1 MI N JCT SH 15	Steel	Stringer / Multi-beam or Girder	50.4	Structurally deficient
E0390	WOLF CREEK	1.N 4.2W OF W.W.AIRFIELD	Concrete	Stringer / Multi-beam or Girder	73.7	
S.H. 34	N. CANADIAN RIVER	.8 MI N JCT SH 15	Steel	Stringer / Multi-beam or Girder	70.2	
N2030	INDIAN CREEK	2.9W 4.1N OF SHARON	Steel	Stringer / Multi-beam or Girder	77.2	
N2250	CREEK	3.1N OF CEDARDALE	Concrete	Stringer / Multi-beam or Girder	69.0	Structurally deficient
S.H. 50	N. CANADIAN RIVER O'FLOW	5.3 MI N JCT US 183	Steel	Stringer / Multi-beam or Girder	74.4	
S.H. 50	INDIAN CREEK	3.8 MI N JCT US 183	Steel	Stringer / Multi-beam or Girder	99.3	
S.H. 50	BULL CREEK	5.8 MI N JCT US 183	Steel	Stringer / Multi-beam or Girder	76.0	
S.H. 50	N. CANADIAN RIVER	5.4 MI N JCT US 183	Steel	Stringer / Multi-beam or Girder	43.0	Structurally deficient
E0400	SAND CREEK	0.7 MI E OF WW AIR PORT	Concrete	Culvert	86.0	
E0400	BNSF R.R. UNDER	0.5 E OF WW AIR PORT	Steel	Stringer / Multi-beam or Girder	63.5	
U.S. 183	CREEK	1.8 MI W JCT SH 34	Prestressed concrete	Stringer / Multi-beam or Girder	93.3	
S.H. 50	SAND CREEK	.8 MI N JCT US 183	Concrete	Slab	99.4	
N2250	EWERS CREEK	5.8N OF CEDARDALE	Prestressed concrete	Stringer / Multi-beam or Girder	89.0	
7762C	DRAINAGE OFF BORROW PIT	1.1 NORTH OF MUTUAL	Steel	Stringer / Multi-beam or Girder	95.0	
E0210	TRADERS CREEK	1N 4.2W OF JCT SH50/50A	Steel	Stringer / Multi-beam or Girder	88.7	
7760C	CREEK	1.E 1.5S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	76.5	
E0540	SOUTH PERSIMMON CREEK	1.E 3.S OF SHARON	Concrete	Culvert	97.0	

Carries	Crosses	Location	Material	Design	Rating %	Status
E0410	WOODWARD CREEK	1.2S 1.4E OF WOODWARD	Steel	Culvert	85.9	
7750C	NORTH PERSIMMON CREEK	2.9W .2S OF SHARON	Steel	Stringer / Multi-beam or Girder	92.1	
E0357	CUDDY CREEK	.8W OF BELVA	Concrete	Stringer / Multi-beam or Girder	98.0	
E0550	HACKBERRY CREEK	6.W 1.8S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	63.0	
N1930	BEAVER RIVER	.3N OF FT SUPPLY	Concrete	Stringer / Multi-beam or Girder	97.0	
E0540	CREEK	5.4 MI E OF MUTUAL	Steel	Stringer / Multi-beam or Girder	93.1	
7772C	CAMP CREEK	7.E 4.5S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	80.1	
N2225	WEST CREEK	.1E 1S OF QUINLAN	Concrete	Culvert	97.0	
E0440	CREEK	4N .7E OF CEDARDALE	Concrete	Stringer / Multi-beam or Girder	99.0	
E0270	LONG CREEK	12.9N 1.9E OF MOORELAND	Prestressed concrete	Tee beam	100	
U.S. 183	SAND CREEK	6.2 MI E JCT SH 34	Prestressed concrete	Stringer / Multi-beam or Girder	84.9	
U.S. 183	WOLF CREEK	3.2 MI SE HARPER CO	Prestressed concrete	Stringer / Multi-beam or Girder	84.8	
N2210	WEST CREEK	1.2S 1.2W OF QUINLAN	Steel	Stringer / Multi-beam or Girder	95.7	
N2130	SAND CREEK	7.1E 3.9N OF SHARON	Steel	Stringer / Multi-beam or Girder	75.7	
U.S. 270	CREEK	0.6 MI SE ELLIS CO	Prestressed concrete	Stringer / Multi-beam or Girder	87.5	
FAS 7707	N. CANADIAN RIVER	7.2E OF MUTUAL	Prestressed concrete	Stringer / Multi-beam or Girder	99.9	
N2160	LONG CREEK	.7W .1N OF SH50/SH50A	Steel	Stringer / Multi-beam or Girder	97.0	
N2230	EWERS CREEK	.7E 3.2S OF QUINLAN	Prestressed concrete	Stringer / Multi-beam or Girder	100	

Carries	Crosses	Location	Material	Design	Rating %	Status
U.S. 183	DEEP CREEK	1.2 MI NW MAJOR C/L	Prestressed concrete	Stringer / Multi-beam or Girder	86.1	
N2230	SAND CREEK	.7E 5.4N OF QUINLAN	Prestressed concrete	Stringer / Multi-beam or Girder	100	
N2210	SAND CREEK	3.7N 1.2W OF QUINLAN	Prestressed concrete	Stringer / Multi-beam or Girder	100	
U.S. 183	BENT CREEK	3.2 MI NW MAJOR C/L	Prestressed concrete	Stringer / Multi-beam or Girder	87.3	
U.S. 183	PERSIMMON CREEK	5.0 MI SE JCT SH 50	Prestressed concrete	Stringer / Multi-beam or Girder	100	
N2170	BENT CREEK	2.E & 4.3S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	96.0	
7760C	BENT CREEK	1. E 3.8 S OF MUTUAL	Concrete	Stringer / Multi-beam or Girder	100	
U.S. 183 WB	SAND CREEK (MOSCOW CREEK	1.4 MI NW JCT SH 5	Prestressed concrete	Stringer / Multi-beam or Girder	97.0	
U.S. 183	INDIAN CREEK	4.3 MI SE JCT SH 34	Prestressed concrete	Stringer / Multi-beam or Girder	100	
E0430	TURKEY CREEK	3.S 2.9W OF W.W.AIRFIELD	Steel	Stringer / Multi-beam or Girder	97.0	
N2230	CREEK	2W 3.6N OF CEDARDALE	Steel	Stringer / Multi-beam or Girder	97.0	
N1980	CREEK	2.E 2.3N OF W.W.AIRFIELD	Steel	Stringer / Multi-beam or Girder	96.0	
N2040	INDIAN CREEK	1.9W 4.9N OF SHARON	Prestressed concrete	Stringer / Multi-beam or Girder	100	
E0290	CHIMNEY CREEK	10.9N 7.4E OF MOORELAND	Steel	Stringer / Multi-beam or Girder	85.0	
E0570	BENT CREEK	3.S 7.8E OF MUTUAL	Prestressed concrete	Stringer / Multi-beam or Girder	100	
E0180	CREEK	4N 6.5W OF SH50 & 50A	Steel	Stringer / Multi-beam or Girder	77.5	
N2190	BENT CREEK	4.E 4.3S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	60.5	Structurally deficient
E0530	HACKBERRY CREEK	1.N 3.7W OF MUTUAL	Steel	Stringer / Multi-beam or Girder	88.8	

Carries	Crosses	Location	Material	Design	Rating %	Status
7772C	BENT CREEK	7.E 3.5S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	91.1	
E0580	COTTONWOOD CREEK	4.S .8E OF MUTUAL	Steel	Stringer / Multi-beam or Girder	93.1	
E0570	DEEP CREEK	3.S 11.1E OF MUTUAL	Steel	Stringer / Multi-beam or Girder	77.4	
N2210	BENT CREEK	6.E & 3.4S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	75.5	
E0300	SAND CREEK	3.5E 8.5N OF QUINLAN	Prestressed concrete	Tee beam	100	
E0440	CREEK	4N 1W OF CEDARDALE	Steel	Stringer / Multi-beam or Girder	85.0	
N2010 (34 ST)	SPRING CREEK	5.E .9S OF W.W. AIRFIELD	Steel	Stringer / Multi-beam or Girder	95.8	
N2100	SAND CREEK	4.1E 3.1N OF SHARON	Steel	Stringer / Multi-beam or Girder	65.0	Structurally deficient
7758C	PERSIMMON CREEK	6.1E 1.1S OF SHARON	Steel	Stringer / Multi-beam or Girder	97.0	
N2200	BENT CREEK	5.E 2.9S OF MUTUAL	Prestressed concrete	Tee beam	100	
E0300	LONG CREEK	9.9N 1E OF MOORELAND	Steel	Stringer / Multi-beam or Girder	97.0	
U.S. 412	N. CANADIAN RIVER O'FLOW	5.8 MI E JCT US 183	Prestressed concrete	Stringer / Multi-beam or Girder	99.0	
U.S. 412	N. CANADIAN RIVER	6.2 E JCT US 183	Prestressed concrete	Stringer / Multi-beam or Girder	99.0	
U.S. 412	N. CANADIAN RIVER O'FLOW	6.5 MI E JCT US 183	Prestressed concrete	Stringer / Multi-beam or Girder	99.0	
E0275	CHIMNEY CREEK	12.4N 9.8E OF MOORELAND	Steel	Stringer / Multi-beam or Girder	66.4	
E0390	WEST CREEK	1.5E .5S OF QUINLAN	Steel	Stringer / Multi-beam or Girder	88.0	Functionally obsolete
BNSF R.R.	U.S. 183 UNDER	2.8 MI W JCT SH 34	Prestressed concrete	Box beam or Girders - multiple		
E0540	CREEK	0.8 W OF MUTUAL	Steel	Stringer / Multi-beam or Girder	97.0	

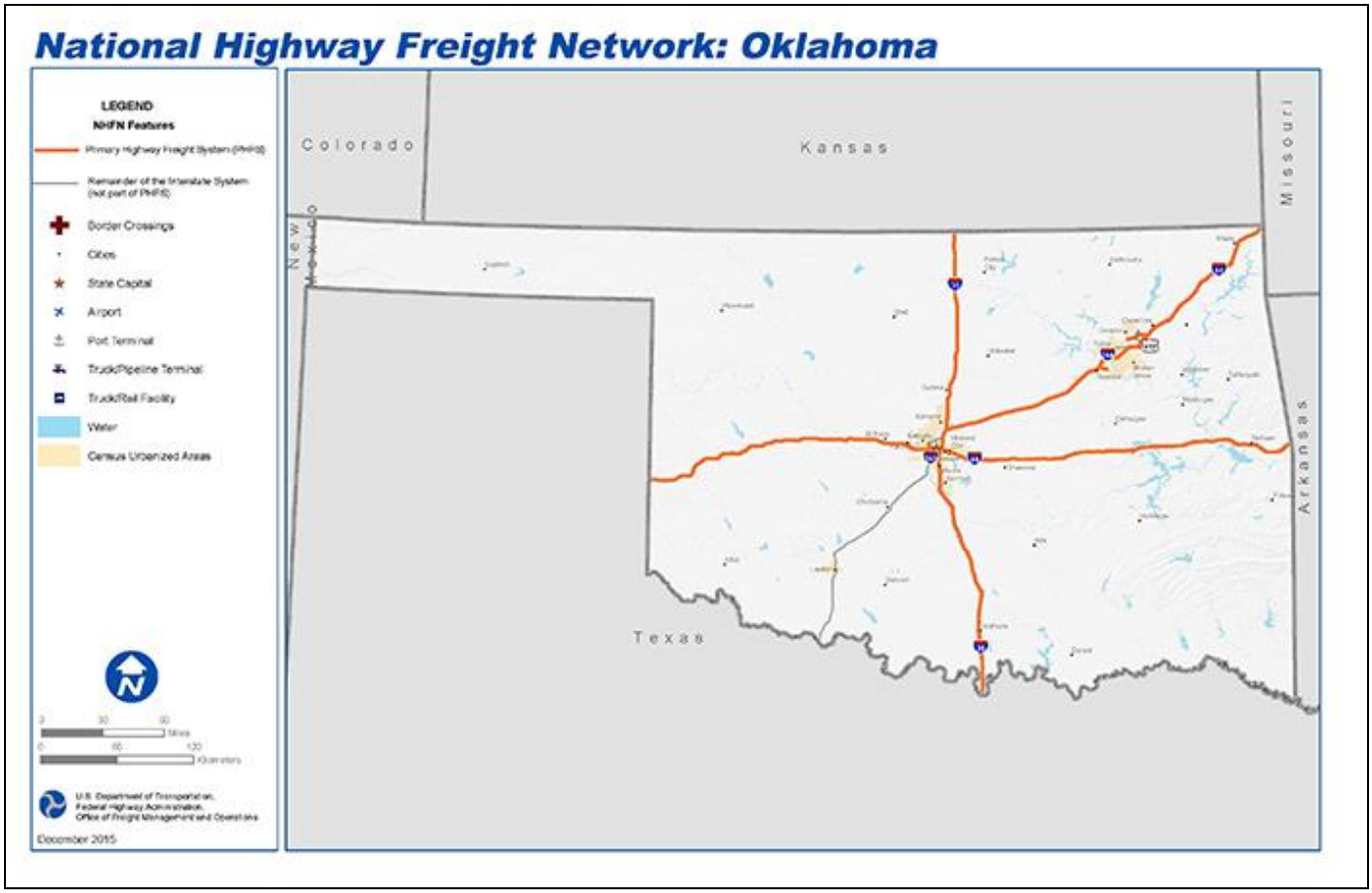
Carries	Crosses	Location	Material	Design	Rating %	Status
E0370	BNSF R.R. UNDER	1.6N 1E OF QUINLAN	Prestressed concrete	Stringer / Multi-beam or Girder	100	
N2190	CREEK	4E 1.5N OF MUTUAL	Steel	Stringer / Multi-beam or Girder	97.0	
N2210	BNSF R.R. UNDER	.5S & 1.2W OF QUINLAN	Prestressed concrete	Stringer / Multi-beam or Girder	97.0	
E0350	SAND CREEK	3.7N 1.2 W OF QUINLAN	Steel	Stringer / Multi-beam or Girder	95.0	
N2040 LAKEVIEW	CRYSTAL BEACH SPILLWAY	.8S 1.5E OF WOODWARD	Steel	Stringer / Multi-beam or Girder	43.3	Structurally deficient
U.S. 183	BEAVER RIVER	0.1 MI S HARPER CO	Prestressed concrete	Stringer / Multi-beam or Girder	93.1	
N2090	S. PERSIMMON CREEK	3.1E 1.S OF SHARON	Prestressed concrete	Stringer / Multi-beam or Girder	100	
U.S. 412	N. CANADIAN RIVER O'FLOW	5.8 MI E JCT US 183	Prestressed concrete	Stringer / Multi-beam or Girder	99.0	
U.S. 412	N. CANADIAN RIVER	6.2 E JCT US 183	Prestressed concrete	Stringer / Multi-beam or Girder	99.0	
U.S. 412	N. CANADIAN RIVER O'FLOW	6.5 MI E JCT US 183	Prestressed concrete	Stringer / Multi-beam or Girder	99.0	
E0210	LONG CREEK	1N 2E OF JCT SH50A /50	Steel	Stringer / Multi-beam or Girder	97.0	
N2200	CREEK	5E .8 N OF MUTUAL	Steel	Stringer / Multi-beam or Girder	97.0	
N2180	CHIMNEY CREEK	8.9N 4.8E OF MOORELAND	Prestressed concrete	Stringer / Multi-beam or Girder	100	
7758C	HACKBERRY CREEK	6.1E 1.9S OF SHARON	Prestressed concrete	Tee beam	100	
E0350	CREEK	.6N.3W3N.1W OF QUINLAN	Steel	Stringer / Multi-beam or Girder	97.0	
N2140	PERSIMMON CREEK	8. E 1.3 S OF SHARON	Steel	Stringer / Multi-beam or Girder	92.1	
E0280	DOE CREEK	11.9N 4.1E OF MOORELAND	Prestressed concrete	Stringer / Multi-beam or Girder	100	
E0397	CREEK	1 BLK E OF MAIN ON SE 3RD	Steel	Culvert	97.0	

E0395	CREEK	1 BLK E OF MAIN ON NE 2ND	Steel	Culvert	90.3	

Carries	Crosses	Location	Material	Design	Rating %	Status
E0398	CREEK	1 BLK E OF MAIN ON SE 4TH	Steel	Stringer / Multi-beam or Girder	71.8	
D2103	CREEK	2.9W 10.3N OF MOORELAND	Steel	Stringer / Multi-beam or Girder	100	
U.S. 183	INDIAN CREEK	4.3 MI SE JCT SH 34(S)	Prestressed concrete	Stringer / Multi-beam or Girder	95.0	
N2070	PERSIMMON CREEK	1.1E .6S OF SHARON	Steel	Stringer / Multi-beam or Girder	90.0	
E0280	CREEK	11.9N 4.2E OF MOORELAND	Steel	Stringer / Multi-beam or Girder	80.2	
U.S. 183/U.S. 270	SAND CREEK	1.4 MI NW SH-50 JCT	Prestressed concrete	Stringer / Multi-beam or Girder	81.8	
N2080	PERSIMMON CREEK	2.1E 1.1S OF SHARON	Steel	Stringer / Multi-beam or Girder	96.0	
N1990	B.N. & S.F. R.R. UNDER	3E .2N OF W.W. AIRFIELD	Steel continuous	Stringer / Multi-beam or Girder	100	
E0260	DOE CREEK	13.9M.N 5.1M.E MOORELAND	Prestressed concrete	Stringer / Multi-beam or Girder	100	
E0540	HACKBERRY CREEK	4.7MI.W. OF MUTUAL,OK	Concrete	Tee beam	98.0	
BNSF R.R.	U.S. 183 UNDER	2.85 W JCT S.H. 34	Prestressed concrete	Stringer / Multi-beam or Girder		
BNSF R.R.	N2260 UNDER	AT BELVA	Concrete	Stringer / Multi-beam or Girder		
BNSF R.R.	N1970 UNDER	5.5W OF WOODWARD	Concrete	Other		
N2090	HACKBERRY CREEK	6W, 1.7S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	97.0	
N2080	SAND CREEK	2.1E, 1.9N OF SHARON	Steel	Stringer / Multi-beam or Girder	94.1	
N2140	BENT CREEK	1W 2.3S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	97.0	

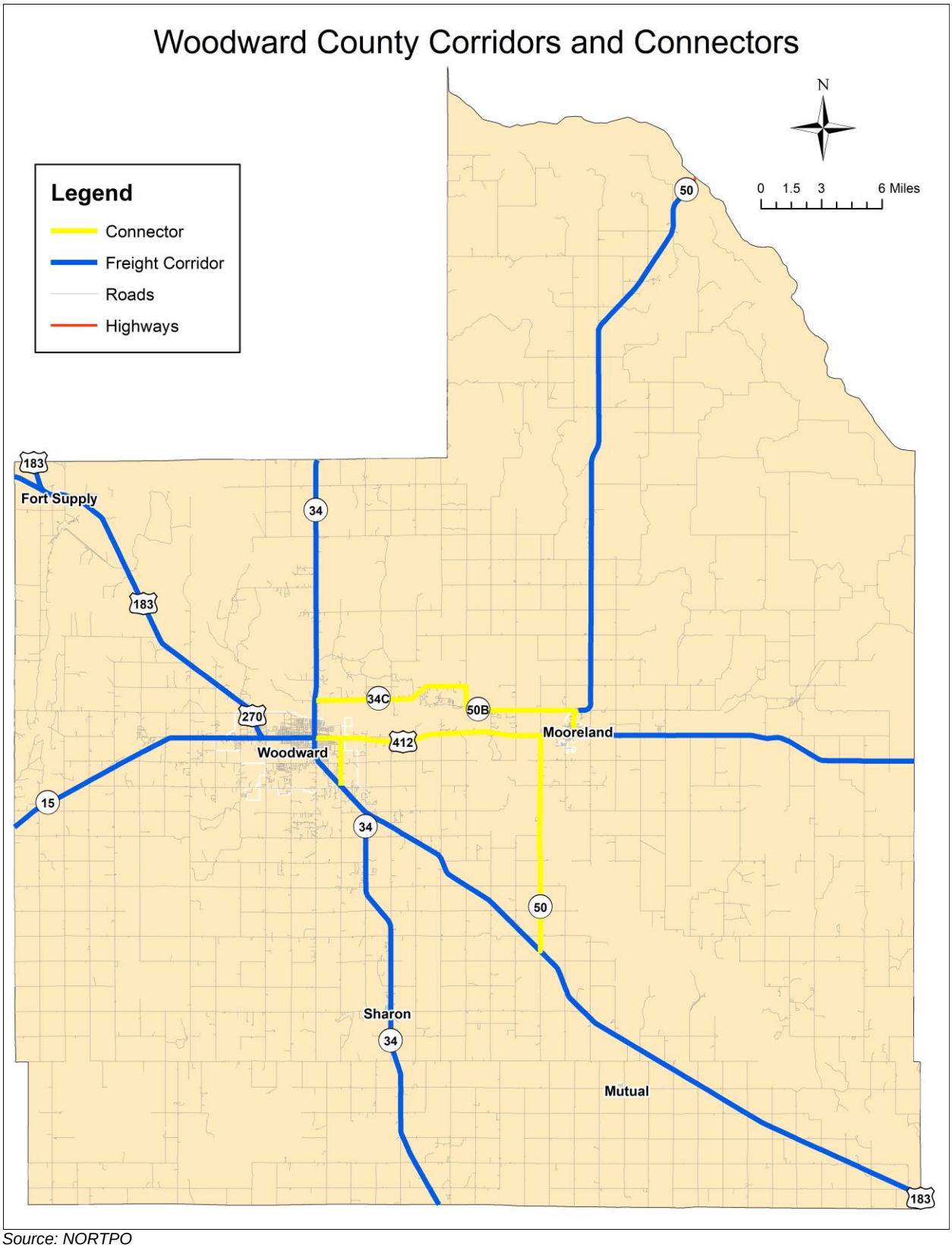
E0510	CREEK	2.4E OF SHARON	Steel	Stringer / Multi-beam or Girder	98.0	
E0560	HACKBERRY CREEK	6.1W, 2S OF MUTUAL	Steel	Stringer / Multi-beam or Girder	95.8	
Carries	**Crosses**	**Location**	**Material**	**Design**	**Rating %**	**Status**
U.S. 183	PERSIMMON CREEK	5 SE JCT S.H. 50	Prestressed concrete	Stringer / Multi-beam or Girder	100	
E0580	DEEP CREEK	4S, 10.5E OF MUTUAL	Prestressed concrete	Stringer / Multi-beam or Girder	96.7	

Map 2.12 National Highway Freight Network (NHFN)



Source: https://ops.fhwa.dot.gov/freight/infrastructure/nfn/maps/nhfn_map.htm

Map 2.13 Woodward County Freight Corridors and Connectors



Source: NORTPO

Map 2.14 Woodward County Railroads

SYMBOL	CLASS I RAILROADS	MILEAGE#	
BNSF	BNSF RAILWAY	966	
UP	UNION PACIFIC RAILROAD	894	-73
KCS	KANSAS CITY SOUTHERN RAILWAY ★	150	-5
	CITIES AND STATIONS / COUNTY SEATS		
	PRINCIPAL HIGHWAYS / McCLELLAN-KERR ARKANSAS RIVER NAVIGATION SYSTEM		

The Heartland Flyer passenger service is operated by Amtrak through funds made available by Oklahoma and Texas Departments of Transportation in cooperation with the BNSF Railway Company.

TO&E	TEXAS, OKLAHOMA & EASTERN RR.	40		
ATLT	AUSTIN, TODD & LADD RAILROAD	39	(9)*	+4
CVR	CIMARRON VALLEY RAILROAD	35		
H&E	HOLLIS & EASTERN RAILROAD	14		
WFEC	WESTERN FARMERS ELECTRIC CORP.	14		
TSU	TULSA SAPULPA UNION RAILROAD	10		+13
SS	SAND SPRINGS RAILROAD	8		
NOKL	NORTHWESTERN OKLAHOMA RR.	5		

*Source:*https://www.ok.gov/odot/documents/Rail%20Map%202018-2020.pdf

Table 2.9 MAGB Ridership and Revenue Data

MAGB Ridership 2018					
County	**Route Miles**	**Passenger Count**	**Elderly Count**	**Disabled Count**	**Elderly and Disabled Count**
Major	97,302	2,660	1,419	104	41
Alfalfa	19,370	241	24	18	9
Blaine	52,308	1,110	367	160	233
Garfield	50,097	2,979	189	487	1,741
Grant	10,809	200	10	15	67
Kay	4,010	36	2	0	0
Kingfisher	13,648	155	136	0	0
Noble	0	0	0	0	0
Woodward					

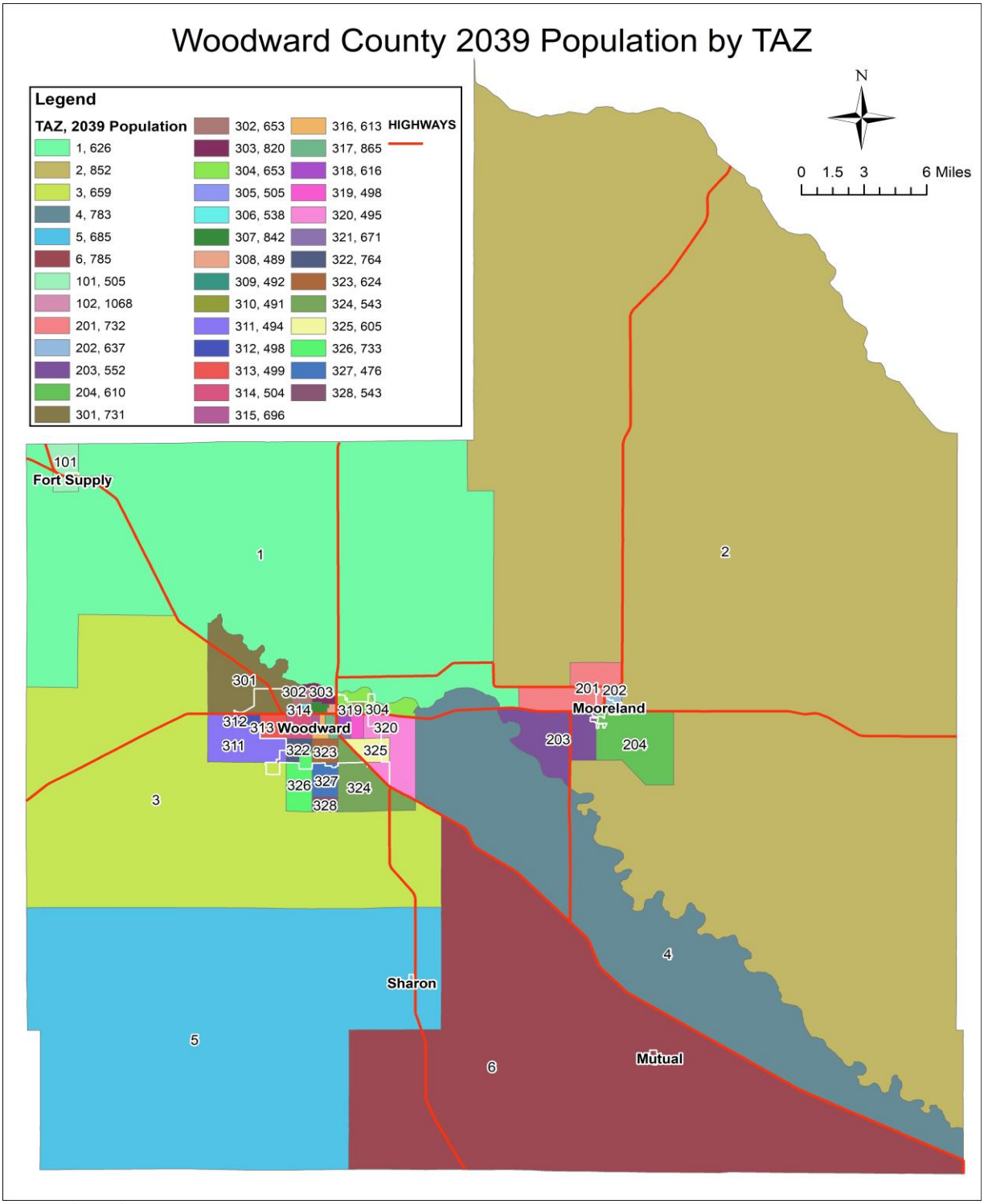
Table 2.10 Red River Public Transportation Services Ridership and Revenue Data

Red River Public Transportation Ridership 2018					
County	**Route Miles**	**Passenger Count**	**Elderly Count**	**Disabled Count**	**Elderly and Disabled Count**

Appendix G

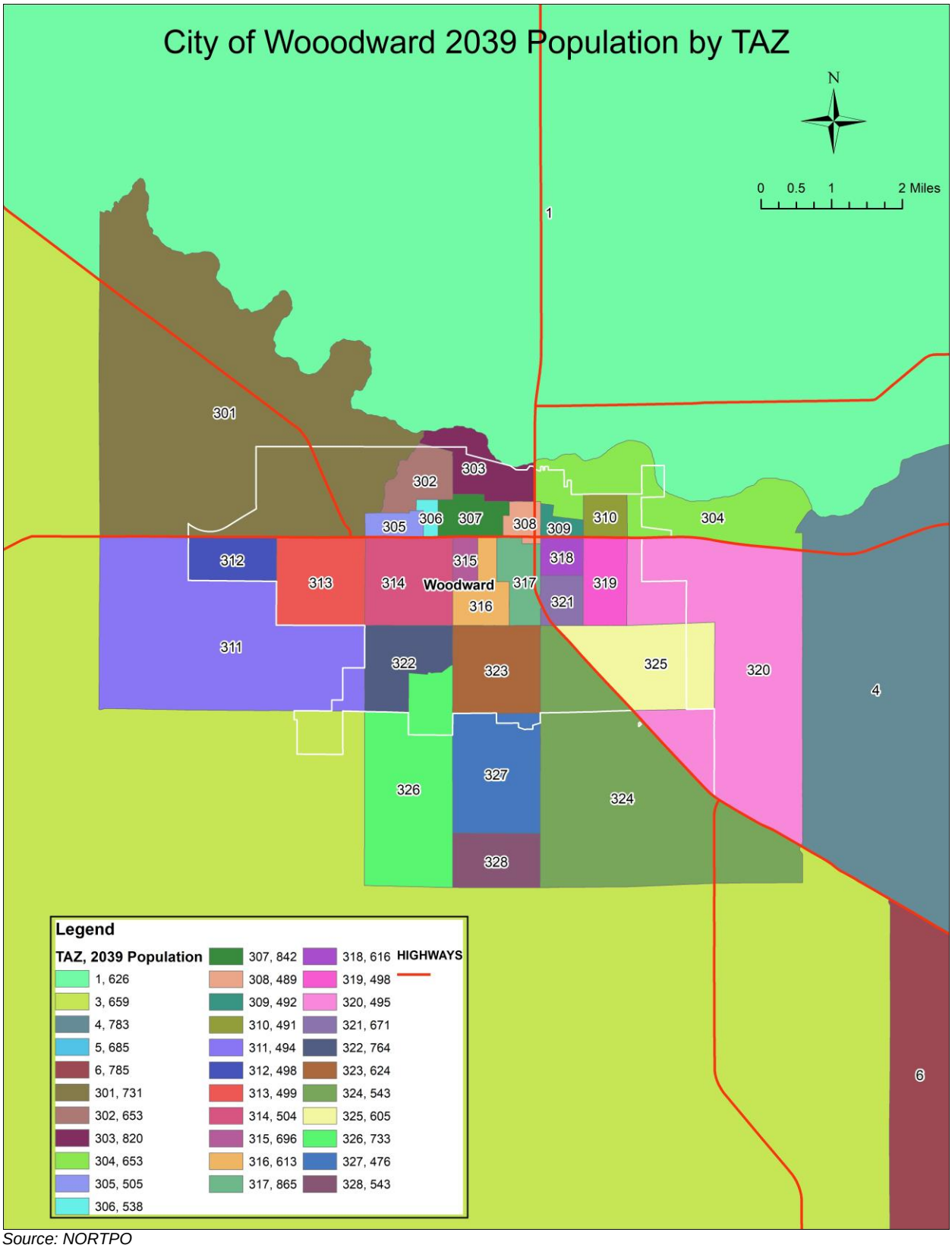
Chapter 3

Map 3.1 Woodward County 2039 Projected Population



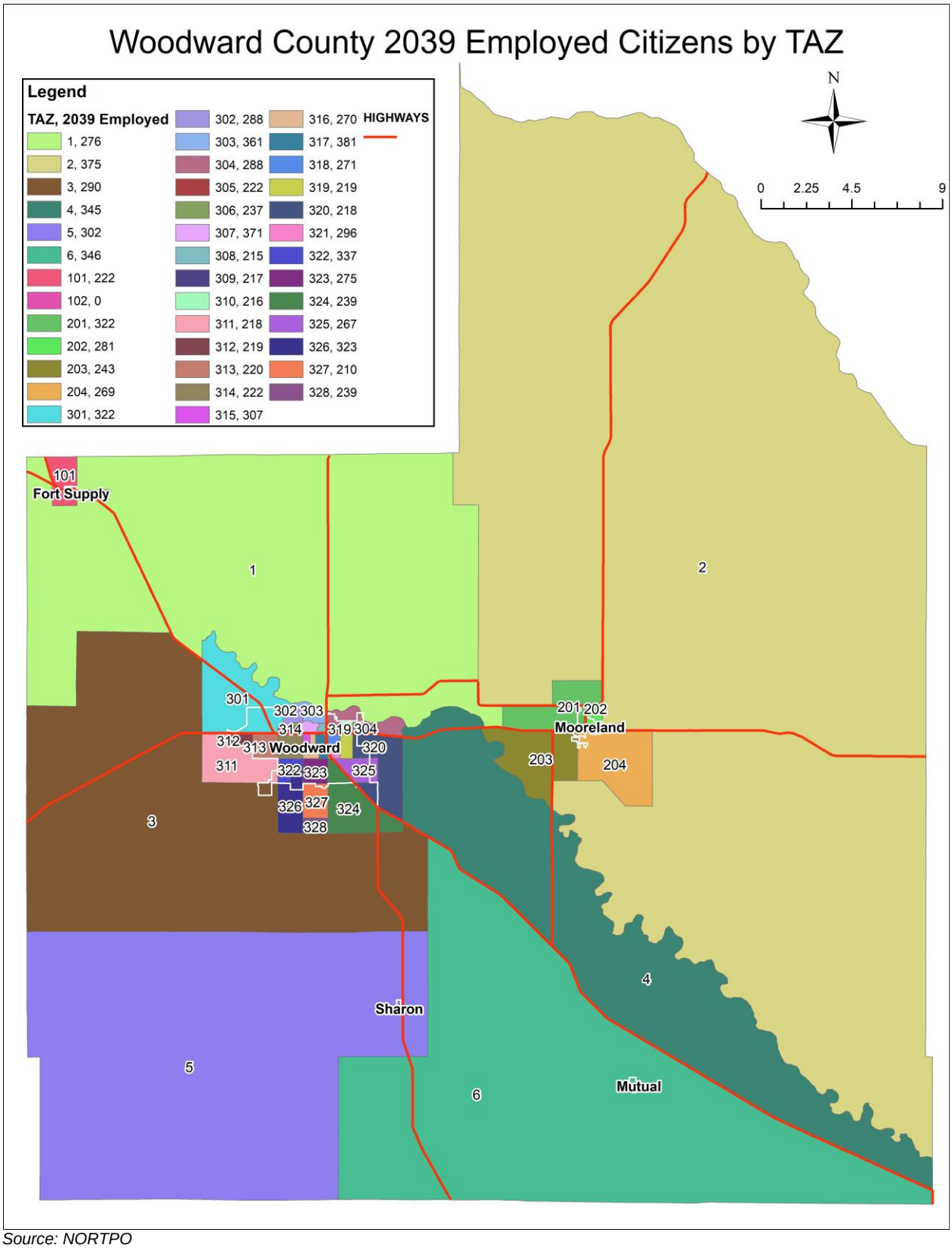
Source: NORTPO

Map 3.2 City of Woodward 2039 Projected Population



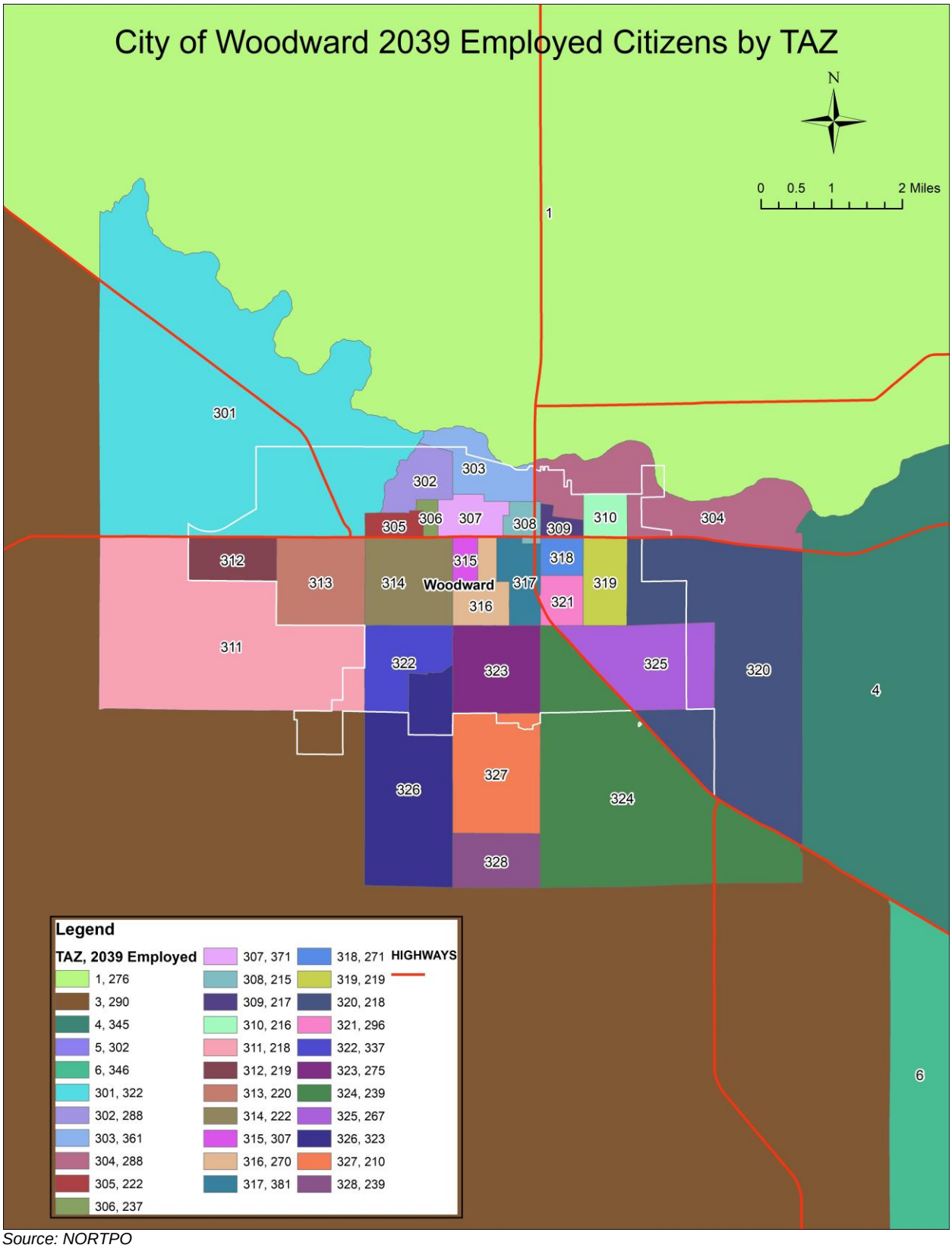
Source: NORTPO

Map 3.3 Woodward County 2039 Projected Employment



Source: NORTPO

Map 3.4 City of Woodward 2039 Projected Employment



Source: NORTPO

Table 3.1 Supporting Data for Projected Population and Employment

Year	Population	Employment
2017	21,140	9,804
2029	23,352	10,288
2039	25,795	11,364

Map 3.5 Location of Projects on the ODOT 8-year Construction Program 2020-2027

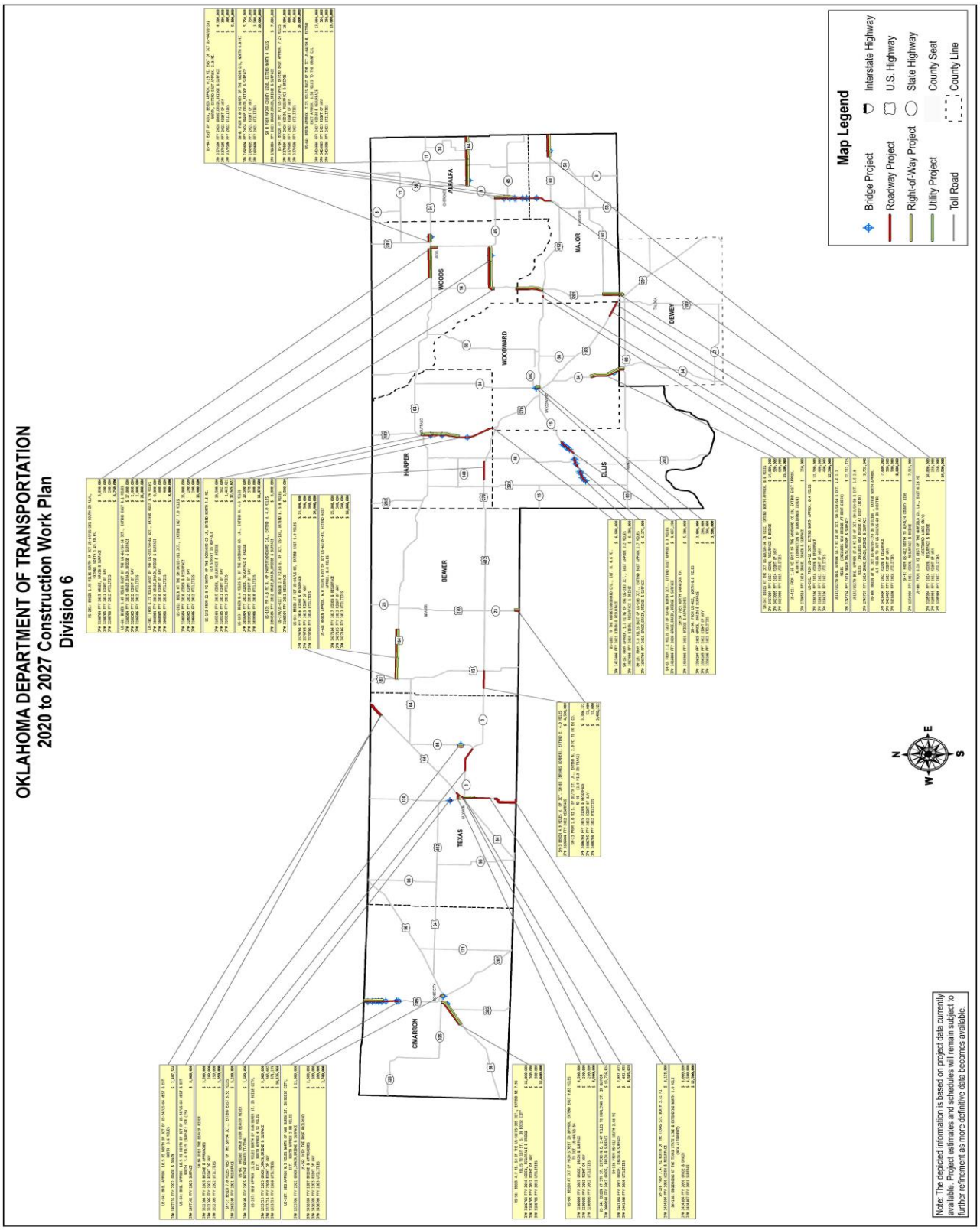


Table 3.2 ODOT 8-year Construction Program 2019-2026

LOCATION	PROJECT TYPE	PROJECT YEAR	PROJECT COST
US-183/US-270: from 10.5 mi. S.E. of SH-50 S.E. Approx 3.7 mi. Lane Divided & Rehab exist lanes	Grade, Draining, Bridge & Surface	FFY2019	$18,800,000.00
SH-34 over North Canadian River. 0.8 miles north of Jct. US-183 RW for 29449(04)	Right of Way	FFY2019	$150,000.00
SH-34 over North Canadian River. 0.8 miles north of Jct. US-183 UT for 29449(04)	Utilities	FFY2019	$100,000.00
US-183/US-270 Beg. Approx. 14.7 mi SE of Jct. SH-3/SH-50 & Ext. SE 2.3 miles (includes new bridge at Bent Creek)	Grade, Draining, Bridge, & Surface	FFY2020	$10,084,000.00
US-183/US-270 Beg. Approx. 17 miles S.E. of Jct. SH-3/SH-50 & Ext. SE 2.3 miles (includes new bridge at Deep Creek)	Grade, Draining, Bridge, & Surface	FFY2020	$11,399,000.01
SH-34 over North Canadian river 0.8 miles north of Jct. US-183	Bridge & Approaches	FFY2022	$6,000,000.00
SH-34: from US-412, north 0.8 miles (RW for 33361(04)	Right of Way	FFY2022	$200,000.00
SH-34: from US-412, north 0.8 miles (UT for 33361(04)	Utilities	FFY2022	$300,000.00
SH-34: from US-412, north 0.8 miles	Grade, Drain, & Surface	FFY2025	$6,000,000.00

Table 3.3 CIRB Projects FFY2019 – FFY2023

		Fiscal Year	Description	AdvCon$ Federal$ State$	Other$ CIRB$ Tribe$	TOTAL$
WOODWARD Div. 6 28460(06)	COBRGE 5.00 M	FY 2019	RIGHT OF WAY CO RD ON EW-51, BEGIN AT SH-34 AND EXTEND 5.0 MILES WEST TO NS-201 RW FOR 28460(04)	$0 $0 $0	$0 $10,000 $0	$10,000
WOODWARD Div. 6 28460(07)	COBRGE 5.00 MI.	FY 2019	UTILITIES CO RD ON EW-51, BEGIN AT SH-34 AND EXTEND 5.0 MILES WEST TO NS-201 UT FOR 28460(04	$0 $0 $0	$0 $10,000 $0	$10,000
WOODWARD Div. 6 31714(05)	CO RD 0.00 MI.	FY 2019	CONTRACT P.E. (AS OF 10/1/2013) CO RD ON EW-51, BEGIN 5.0 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST	$0 $0 $0	$0 $100,000 $0	$100,000
WOODWARD Dive. 6 31716(05)	CO RD 5.00 MI	FY 2020	CONTRACT P.E. (AS OF 10/1/2013) CO RD ON EW-51, BEGIN10 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST TO ELLIS CL PHASE III PE FOR 31716(04)	$0 $0 $0	$0 $100,000 $0	$100,000
WOODWARD Div. 6 28460(04)	COBRGE 5.00 MI.	FY 2021	RESURFACE CO RD ON EW-51, BEGIN AT SH-34 AND EXTEND 5.0 MILES WEST TO NS-201 PHASE I	$0 $0 $0	$0 $4,000,000 $0	$4,000,000
WOODWARD Div. 6 29795(05)	COBRGE 0.20 MI.	FY 2021	CONTRACT P.E. (AS OF 10/1/2013) BR & APPR ON NS-195 OVER BN & SF RR, 1.0 SOUTH & 1.0 WEST OF WOODWARD AIRPORT CT BEAMS WITH RR PARTICIPATION PE FOR 29795(04)	$0 $0 $0	$0 $65,000 $0	$65,000
WOODWARD Div. 6 31714(06)	CO RD 0.00 MI	FY 2021	RIGHT OF WAY CO RD ON EW-51, BEGIN 5.0 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST TO NS-196 PHASE II RW FOR 31714(04)	$0 $0 $0	$0 $10,000 $0	$10,000
WOODWARD Div. 6 31714(07)	CO RD 0.00 MI.	FY 2021	UTILITIES CO RD ON EW-51, BEGIN 5.0 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST TO NS-196 PHASE II UT FOR 31714(04)	$0 $0 $0	$0 $10,000 $0	$10,000
WOODWARD Div. 6 28460(08)	COBRGE 8.00 MI.	FY 2022	RESURFACE CO RD AND BRIDGE ON EW-51, BEGIN AT NS-198 AND EXTEND EAST 8.0 MILES TO SHARON PHASE II	$0 $0 $0	$0 $5,000,000 $0	$5,000,000

		Fiscal Year	Description	AdvCon$ Federal$ State$	Other$ CIRB$ Tribe$	TOTAL$
WOODWARD Div. 6 29350(05)	CO RD 7.00 MI	FY 2022	CONTRACT P.E. (AS OF 10/1/2013) WIDEN AND RESURFACE NS-195, BEGIN AT EW-48 AND EXTEND 7.0 MILES NORTH 7.0 MILES TO SH-15 PE FOR 29350(04)	$0 $0 $0	$0 $151,934 $0	$151,934
WOODWARD Div. 6 29350(06)	CO RD 7.00 MI	FY 2022	RIGHT OF WAY WIDEN AND RESURFACE NS-195, BEGIN AT EW-48 AND EXTEND 7.0 MILES NORTH 7.0 MILES TO SH-15 RW FOR 29350(04)	$0 $0 $0	$0 $20,000 $0	$20,000
WOODWARD Div. 6 29350(07)	CO RD 7.00 MI.	FY 2022	UTILITIES WIDEN AND RESURFACE NS-195, BEGIN AT EW-48 AND EXTEND 7.0 MILES NORTH 7.0 MILES TO SH-15 UT FOR 29350(04)	$0 $0 $0	$0 $20,000 $0	$20,000
WOODWARD Div. 6 31714(04)	CO RD 5.00 MI.	FY 2022	WIDEN & RESURFACE CO RD ON EW-51, BEGIN 5.0 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST TO NS-196 PHASE II	$0 $0 $0	$0 $4,000,000 $0	$4,000,000
WOODWARD Div. 6 31716(06)	CO RD 5.00 MI.	FY 2022	RIGHT OF WAY CO RD ON EW-51, BEGIN10 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST TO ELLIS CL PHASE III RW FOR 31716(04)	$0 $0 $0	$0 $10,000 $0	$10,000
WOODWARD Div. 6 31716(07)	CO RD 5.00 MI. F	FY 2022	UTILITIES CO RD ON EW-51, BEGIN10 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST TO ELLIS CL PHASE III UT FOR 31716(04)	$0 $0 $0	$0 $10,000 $0	$10,000
Woodward Div. 6 29795(05)	COBRGE 0.20 MI	FY 2023	CONTRACT P.E. (AS OF 10/1/2013) BR & APPR ON NS-195 OVER BN & SF RR, 1.0 SOUTH & 1.0 WEST OF WOODWARD AIRPORT CT BEAMS WITH RR PARTICIPATION PE FOR 29795(04)	$0 $0 $0	$0 $65,000 $0	$65,000
Woodward Div. 6 31714(04)	CO RD 5.00 MI	FY 2023	WIDEN & RESURFACE CO RD ON EW-51, BEGIN 5.0 MI WEST OF SH-34 AND EXTEND 5.0 MILES WEST TO NS-196 PHASE II	$0 $0 $0	$0 $4,000,000 $0	$4,000,000