



ABSENTEE SHAWNEE TRIBE

Transportation Safety Plan

DEVELOPED BY

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Absentee Shawnee Tribe
TRANSPORTATION SAFETY PLAN
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Vision Statement:

The purpose of the Absentee Shawnee Tribe's Transportation Safety Plan is to increase safety for all drivers, passengers, and vehicles, to decrease fatalities and serious collisions, and to identify strategies to ensure the welfare of all roadway users throughout the transportation network.

Introduction

Under the Federal Highway Administration (FHWA) Office of Federal Lands, the Office of Tribal Transportation (OTT) administers the Tribal Transportation Program (TTP). The Tribal Transportation Program (TTP) is the largest program in the Office of Federal Lands Highway. The purpose of the TTP is to address the transportation needs of Tribal governments throughout the United States. The program received \$465 million in fiscal year 2016 and with increases of \$10 million per year to \$505 million in fiscal year 2020, as established in Public Law 114-94, Fixing America's Surface Transportation Act (FAST Act). In 2022, the Bipartisan Infrastructure Law (BIL), as enacted by the Infrastructure Investment and Jobs Act (Public Law 117-58), 4% of the available TTP funds are set aside to address transportation safety issues in Native America.

Native American and Alaska Native populations experience higher rates of transportation related fatal injuries. To identify causes and develop countermeasures, Tribal Transportation Program Safety Funds (TTPSF) have been made available to federally recognized Indian Tribes through a competitive, discretionary program. Eligible projects for the TTPSF 1) the development and update of transportation safety plans; 2) crash data assessment, improvement, and analysis; 3) systemic roadway departure countermeasures; and, 4) infrastructure improvements and other eligible activities listed in 23 U.S.C. 148(a)(4).

The Absentee Shawnee Tribe (AST) is committed to improving the overall safety of the transportation system. The development of a strategic Transportation Safety Plan is encouraged as a means to identify and address transportation safety needs in tribal communities. The purpose of this Transportation Safety Plan is to develop and improve the transportation safety management efforts of the Absentee Shawnee Tribe. The plan will be built through the cooperative efforts of individuals from the Absentee Shawnee Tribe, federal and state governments, local governments, and other agencies with a vested interest in transportation safety. The approach for this plan will be to address safety issues through the lens of the four Es: Engineering, Enforcement, Education, and Emergency Medical Services. The plan will identify emphasis areas and develop action steps that may be implemented to improve transportation safety within the Absentee Shawnee Tribe's jurisdictional boundaries.

The Absentee Shawnee Tribe jurisdictional area consists of trust land parcels, fee-simple tracts, and the Oklahoma Tribal Statistical Area (OTSA)¹ shared with the Citizen Potawatomi Nation (CPN). The Absentee Shawnee Tribe is headquartered just south of

¹ The boundary of an OTSA is the former reservation in Oklahoma, except where modified by agreements with neighboring tribes for statistical data presentation purposes. The OTSA for the AST is joint with the Citizen Potawatomi Nation.

Shawnee, Oklahoma. The tribal complex is nested along the east side of Gordon Cooper near the CPN tribal headquarters. The AST road network, as defined by the National Tribal Transportation Facility Inventory (NTTFI) overlaps roads, bridges, and other transportation facilities primarily within Cleveland County. A few routes fall within Pottawatomie County and a small portion of Oklahoma County. The Absentee Shawnee Tribe has a few tribally-owned routes that are located on trust land. The majority of routes within the jurisdictional area are state, county, or city owned.

The AST road network is a mix of urban and rural roadways, state highways and city streets, and county roads. Fifteen routes fall within the city limits of Norman. These are the urban roadways and represent an untapped relationship between the AST and City. Approximately 40 routes fall within Pottawatomie County. Despite numerous attempts to reach out the County, the AST has not been able to establish a cooperative working relationship. The majority of the AST NTTFI routes lie within Cleveland County. Some of these routes extend into the Oklahoma City limits and a few cross into Oklahoma County.

Figure 1 (page 3) shows the AST NTTFI within its geographic context.

Absentee Shawnee Tribe Overview

Demographics

The Absentee Shawnee Tribe (AST) is a federally recognized tribe headquartered in central Oklahoma. The tribal complex is located just south of the town of Shawnee. According to tribal records, the enrollment is approximately 4,588². The two primary communities are the town of Shawnee and Little Axe. Shawnee is a growing municipality found east of the Oklahoma City metropolitan area. The unincorporated community of Little Axe is located along SH 9 on the eastern shore of Lake Thunderbird and is recognized as a public school district (PK – 12). The AST overlaps with Cleveland County and Pottawatomie County, two of the most populous counties in the state (3rd and 9th respectively).

² Per tribal records provided by the Self-Governance Director (31 July 2022)

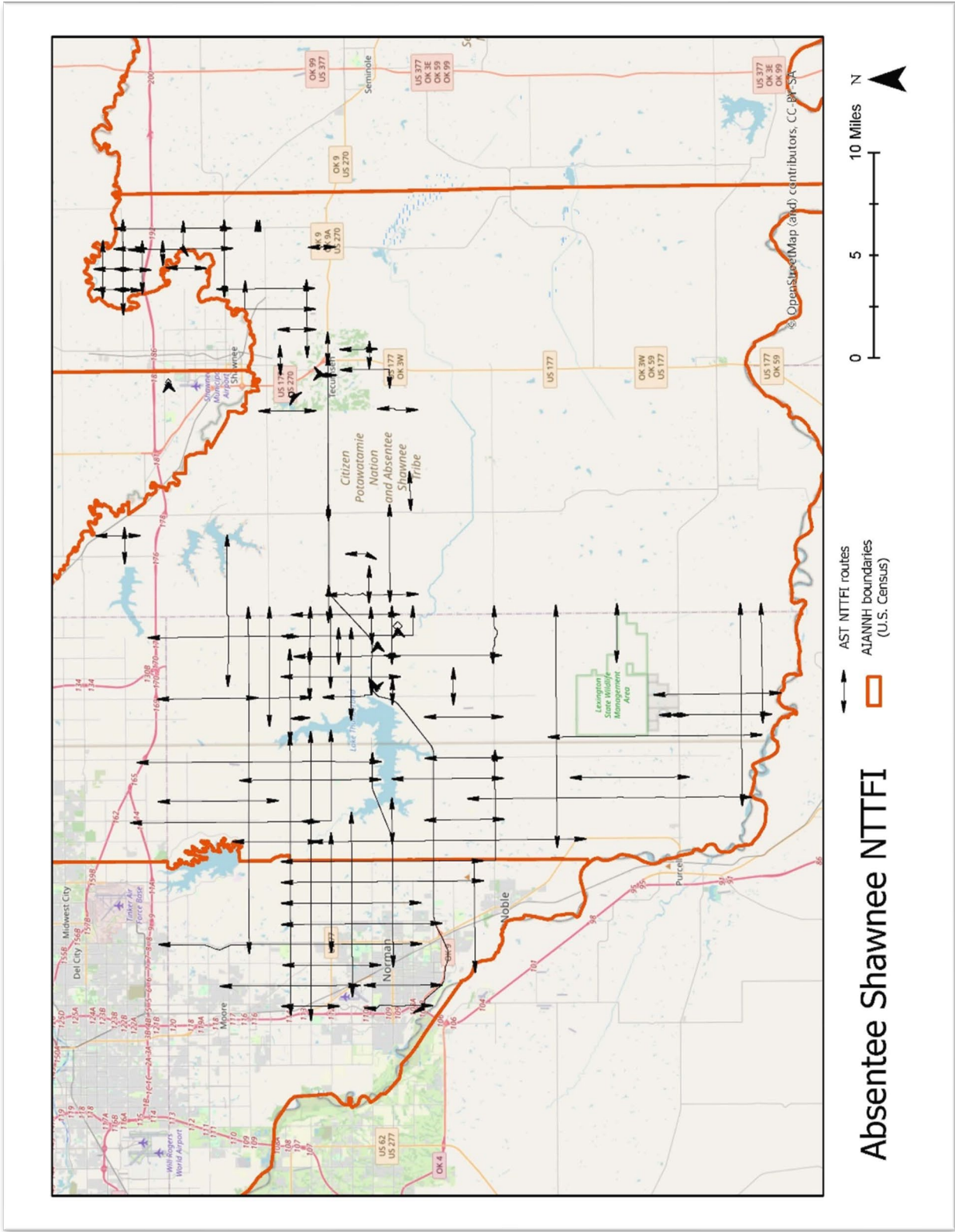


Figure 1. Absentee Shawnee Tribe – NTTFI Base Map

The U.S. Census Bureau, through the American Community Survey (ACS), updates population estimates and demographic data annually. The table below shows the estimated populations based on the 2020 Census.

Table 1. Absentee Shawnee Tribe Jurisdictional Area Demographics (U.S. Census 2020)

Place	Population
Absentee Shawnee – Potawatomie OTSA	126,987
Shawnee	31,377
Little Axe Public School ³	1,136
Cleveland County	295,528
Pottawatomie County	72,454

Landscape

The AST is located within the Central Lowland physiographic province and has rolling topography that ranges from the urban setting of Norman to the winding roads of Lake Thunderbird to the rural farmlands of Pottawatomie County. As part of the Great Plains, the Level III ecoregions of the AST are Cross Timbers. Cross Timbers is characterized by a mix of savanna, woodland, and prairie. Cross Timbers forms the boundary between the eastern temperate forests of the country and the nearly treeless Great Plains.

Transportation Network

As previously mentioned, the transportation network of the Absentee Shawnee Tribe is complex in that includes both urban and rural roadways as well as tribal transportation facilities (Figure 1). The Tribe is concerned with county and state roads and bridges that fall within the jurisdictional boundaries, especially those that provide access to tribally-owned lands and housing areas. As of 2022, the AST had 208 official sections (435.7 miles) on the National Tribal Transportation Facility (NTTFI). Only official routes are eligible for the expenditure of TTP safety funds, and therefore will define the study area for the transportation safety plan.

The majority of the routes fall within Cleveland County, some falling within the city limits of Norman and Oklahoma City. Several state highways are included as routes within the inventory, the most critical being SH-9. The AST transportation department has an established cooperative working relationship with the Cleveland County commissioners and the desire to pursue other cooperative working relationships. The AST has the ability to supplement resources and partner with the county and cities for roadway improvements.

³ Oklahoma School Report Card (<https://www.oklaschools.com/district/484/>)

Existing Efforts

The Absentee Shawnee Tribe is currently in the process of reactivating the Tribal Transportation Program. As part of these efforts, the AST is updating its long range transportation plan and developing this transportation safety plan. As previously mentioned, the AST is willing to work with the counties for the improvement of the roadway network. The AST and Cleveland County have an open-communication relationship.

The Absentee Shawnee Tribal Police provides law enforcement services for the tribe's jurisdictional areas to ensure public safety. The AST has an emergency management department under the Department of Public Safety. Two emergency operation centers operate out of the police station in Shawnee and the police sub-station at Little Axe.

National Emphasis Areas

In August 2017, the Tribal Transportation Strategic Safety Plan for the country was presented to the U.S. Congress. The national plan was intended to identify and discuss common transportation safety issues for Tribes across the country. The plan justifies funding for Tribal areas by recognizing that solid data collection methods are lacking that would allow Tribes to better understand, identify, and share tribal transportation safety issues.

Five emphasis topics were identified at the national level to improve safety on Tribal lands:

- Occupant Protection Devices
- Roadway Departure
- Impaired Driving
- Pedestrians
- Availability of Public Safety Services

Other emerging topics were speed, driver distraction, intersections, young drivers, older drivers, animal-vehicle crashes, and off-road transportation.

These topics were used to frame the survey that was sent to the transportation stakeholders. The crash data was analyzed to see how it aligned with the national emphasis areas. From the survey responses and crash data, the Absentee Shawnee Tribe's transportation safety emphasis areas were selected.

Transportation Safety Survey

The transportation director decided that the best outreach would be conducted via an online survey that could be shared with tribal employees and members. The transportation director distributed the survey to stakeholders through email and posted on the AST Facebook page. The survey was available for three weeks. Forty-seven surveys were returned to provide insight into the perceptions of the transportation safety.

Based on the results of the survey, roadway departures, impaired driving, and distracted driving are the emphasis areas most needing to be addressed. Most respondents consider occupant protection, pedestrian safety, speed, younger/older drivers, and animal-

vehicle crashes to be minor concerns. The availability of public safety services is largely considered to be adequately addressed.

The transportation survey details and responses can be found in Appendix A.

Crash Data Analysis

The focus of the transportation safety concerns are those crashes that occur along AST routes, within the suburban and rural areas of Cleveland County and Pottawatomie County. The Oklahoma Department of Transportation (ODOT) allows access to collision data throughout the state through their SAFE-T (Statewide Analysis for Engineering and Technology) database. Collision data can be accessed for counties, municipalities, and other geographic regions. Due to a software upgrade, crash data for Cleveland and Pottawatomie counties were provided by ODOT per email request. Starting with the comprehensive ODOT dataset provided for both counties, any crashes that occurred on interstates were eliminated. Next, those crashes that occurred within 0.5 mile of an AST NTFFI route were selected and saved. These are the crashes that have been included for the purpose of the crash data analysis.

The map below shows the collisions included for the purposes of this study (Figure 2). The total count is 4,196 collisions. Contributing factors and other conditions were analyzed over the most recent five year period (2017-2021)⁴.

Collisions are ranked on a severity scale of 1 to 5:

- 1 – Property Damage Only (PDO)
- 2 – Possible Injury
- 3 – Non-incapacitating Injury
- 4 – Incapacitating injury
- 5 – Fatality

Collisions with a severity class of 3, 4, or 5 will collectively be referred to as “severe collisions.”

Road geometry design and human behavior are the critical components for roadway safety. Collision data reveal troublesome locations, roadway deficiencies, and primary contributing factors. An examination of the contributing factors looks at the overall types of collisions, environmental conditions, and human behaviors. Alcohol was cited in 216 of the crashes (4.4%) and drugs were identified in 72 (1.5%). Drugs metabolize faster than alcohol. They are more difficult to test for, especially in event of severe collisions where the priority actions are dedicated to the victim(s).

⁴ Collision records may be incomplete for 2021 year.

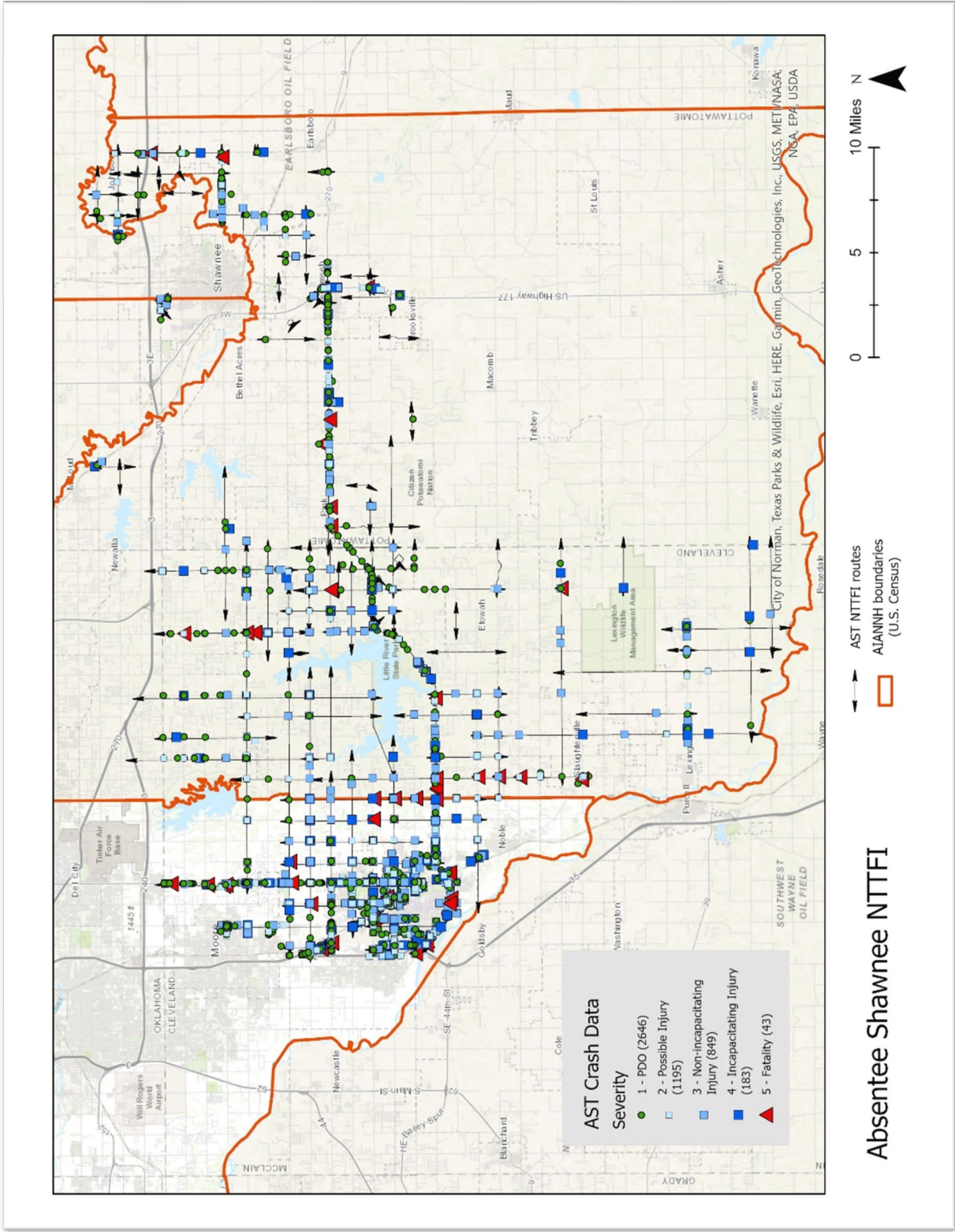


Figure 2. AST Study Collisions (2017-2021)

To portray a more accurate depiction of the characteristics of the crashes and their locations, the crashes were separated into “urban” and “rural” area based on whether they fell outside of the OTSA or within it. Those crashes that fell outside of the OTSA lie within the city limits of Norman, Noble, Moore, and even Oklahoma City. Those crashes that fell within the OTSA are the rural areas of Cleveland County and Pottawatomie County.

Types of Collisions

ODOT categorizes the types of collisions and where they occurred. Table 2 below lists the different types of collisions and their severity. Rear-end, angle-turning, and right-angle collisions are the most common and resulted in the most fatalities. F-O represents “Fixed-Object” collisions: those collisions that occur when a vehicle strikes an immovable object.

Table 2. AST Types of Collisions

	RURAL CRASHES SEVERITY					URBAN CRASHES SEVERITY					Total
	1	2	3	4	5	1	2	3	4	5	
Collision Types											
ANGLE-OTHER	1		1			6	3				11
ANGLE-TURNING	92	33	33	7	2	463	244	157	32	2	1065
ANIMAL	51	14	9			11		2			87
F-O BARR-CONCRETE		2	1			5	1	1			10
F-O BARR-OTHER						6					6
F-O BR-ABUTMENT			1								1
F-O BR-BEAMS						1		1			2
F-O BR-OVERHEAD						1					1
F-O BR-POST						1					1
F-O BR-RAIL	1		1			1		1			4
F-O CULVERT	6	5	5	5	2	2	1	4	1		31
F-O CURB			3			23	10	10	1	1	48
F-O DELINEATOR			1								1
F-O DITCH	16	10	6	3	1	2		3	2		43
F-O DROP-OFF						1					1
F-O EMBANKMENT	4		4					1			9
F-O FENCE	8	3	5			5	3	3			27
F-O FENCE-POLE	4		1					1			6
F-O GROUND			4				1	1			6
F-O GUARDRL-END	4	1	3			2		2			12
F-O GUARDRL-FACE	8	3	4			6		5	1		27
F-O ISLAND	1					2		1			4
F-O MAILBOX	8	1	3			8		4			24
F-O OTHER	2	1	1	1		3	2	1			11
F-O POLE-OTHER	6		2	1		10	1	2	1		23
F-O RET-WALL	1										1

	RURAL CRASHES SEVERITY					URBAN CRASHES SEVERITY					Total
	1	2	3	4	5	1	2	3	4	5	
Collision Types											
F-O TRAFF-SIGN	9	3	3		1	18	4	1			39
F-O TRAFF-SIGNAL						4	1	1		1	7
F-O TREE	14	8	6	3	2	5	9	7		1	55
F-O UTIL-POLE	8	9	4	4	1	15	11	7	4		63
HEAD-ON	5	4	5	4		4	8	7	6	4	47
OTH-BACKING	4	1				31	3				39
OTHER	25	12	12		2	58	12	9	7		137
OTH-SINGLE-VEH	9		2			5			1		17
PEDAL-CYCLE			1		1	4	10	20	5		41
PEDESTRIAN		1	1	4	1	2	12	30	8	3	62
REAR-END	107	45	25	5	1	1081	469	222	24	4	1983
RIGHT-ANGLE	64	43	39	10	2	132	129	104	25	5	553
ROLLOVER	7	9	11	6	2	4	6	12	5	1	63
SIDESWIPE-OPP	18	6	5	2	3	15	5	8	3		65
SIDESWIPE-SAME	13	5	5			211	29	14	2		279
VEH-TRAIN						2	2				4
TOTAL	496	219	207	55	21	2150	976	642	128	22	4916

Roadway Departures (RwDs)

Roadway departure (RwD) crashes are defined as when a vehicle leaves the traveled way and results in a crash. Roadway alignment is considered an important contributing factor. The national transportation safety plan states that 35% of roadway departure fatalities in Tribal areas occurred in a horizontal curve, in keeping with crash statistics across the country. The RwD crashes are scattered throughout the AST study area and only account for 19.5% of the total crashes. Only 7.2% of them were severe, yet despite the lower percentages, RwDs were involved with 55.8% of fatal crashes. Figure 3 (page 10) shows the location of the RwD crashes.

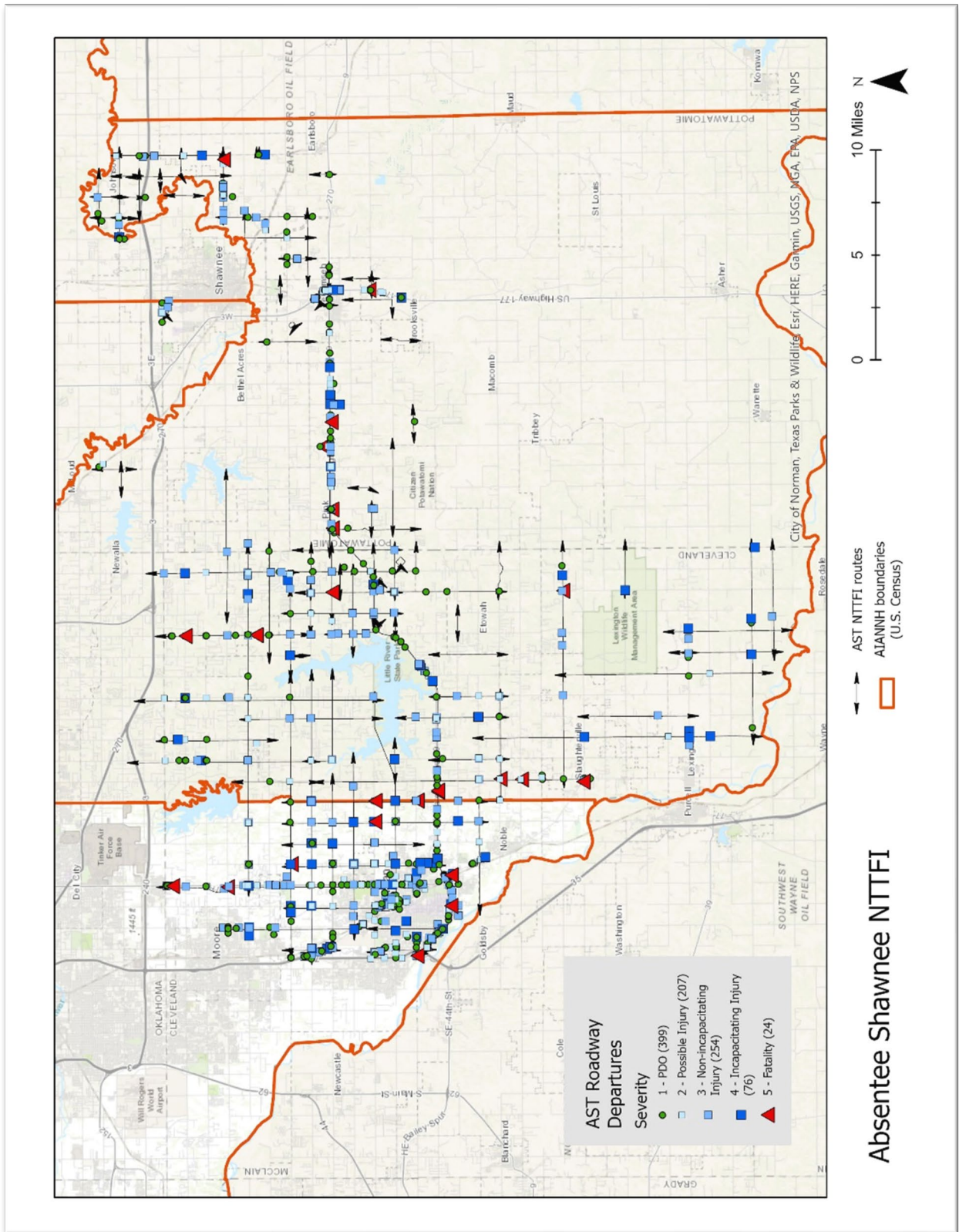


Figure 3. AST Roadway Departure Crashes

Intersections

Intersections are planned points of conflict, where paths cross, separate, or join. Intersection safety is a priority at the national, state, and local levels.

ODOT has the following intersection classifications:

- 0 = not intersection related
- 1 = intersection-related
- 5 = north of intersection city street
- 6 = east of intersection city street
- 7 = south of intersection city street
- 8 = west of intersection city street

As shown in Figure 4, collisions at or near intersections account for over 80% of all the collisions within the urban area. Uncontrolled intersections are problematic in rural intersections. Excessive speeds and the lack of signage to indicate right-of-way can make the intersections of rural county roads prone to collisions.

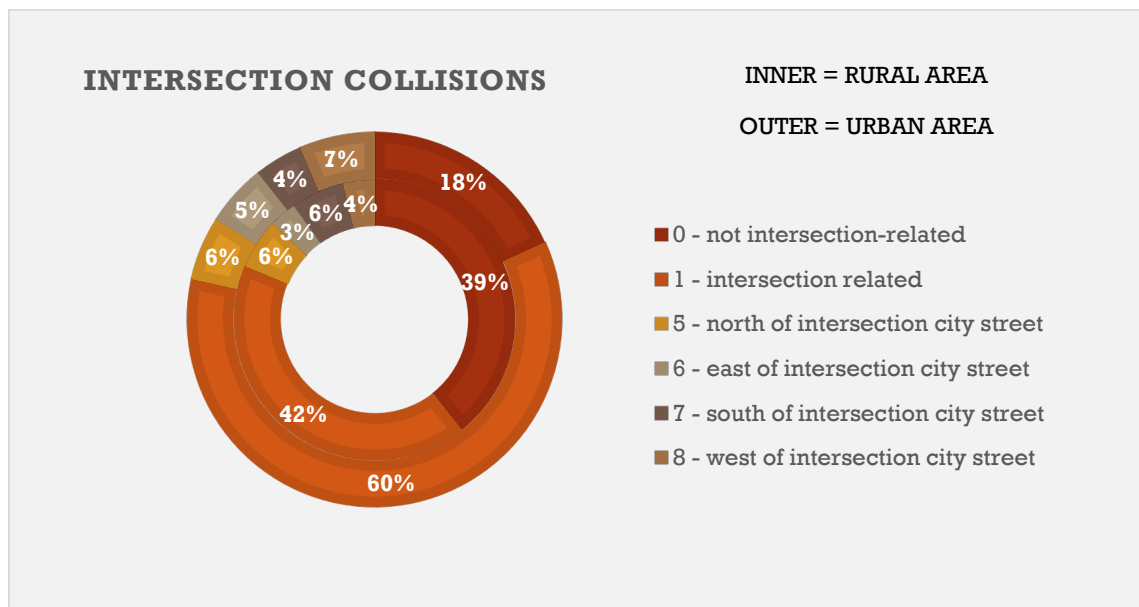


Figure 4. AST Intersection collisions by rural and urban areas

Figure 5 (page 12) is the map of those collisions occurring at or near intersections. This group accounts for 77.5% of all the collisions. Of the total fatality crashes, over half (58.1%) occurred at intersections. Intersection collisions are a major issue within the AST road network and will be discussed in more detail within the Emphasis Areas section.

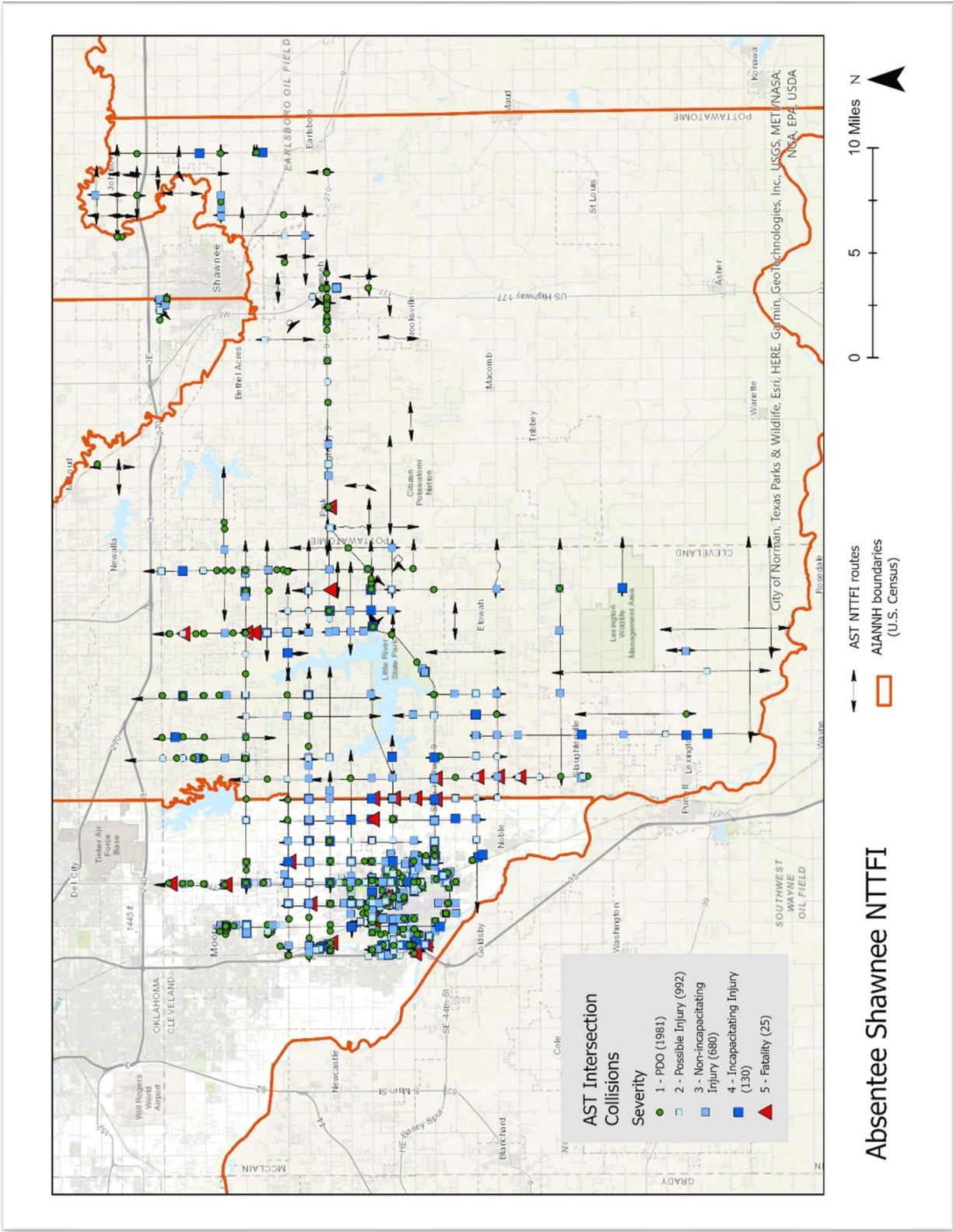


Figure 5. AST Intersection-related Collisions

Unsafe / Unlawful Behavior

ODOT crash data records identify those behaviors deemed unlawful or unsafe that contribute to collisions. Figure 5 is a table that summarizes the unsafe-unlawful behaviors that were identified within the crash data set. Inattentive driving was the most prevalent at 23.7% followed by failure to yield at 19.5%.

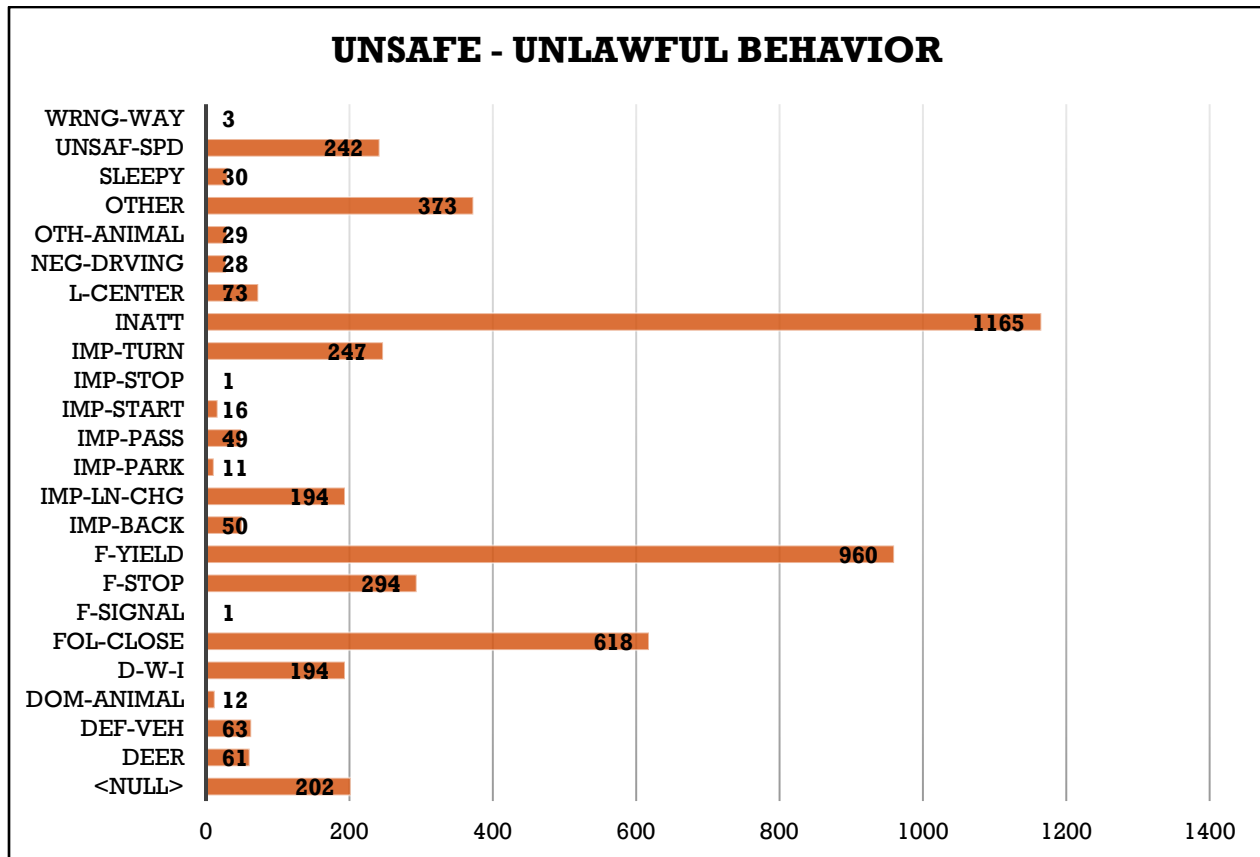


Figure 6. Unsafe / Unlawful Behaviors

AST Emphasis Areas Selections

Roadway Departures

Across the AST road network, RwDs are not prevalent but their prevalence among severe crashes warranted more analysis. At least half of all the RwD crashes occurred along the state highways. Table 3 shows the breakdown of the identified highways for the RwD crashes. It is worth noting that several of the <null> crashes also occurred along these state highways, but the highway name did not get recorded.

Table 3. *RwDs crashes by location and severity*

Hwy Name	Severity					Total
	1	2	3	4	5	
<Null>	184	118	145	50	12	507
SH-102	6	2	2		1	11
SH-270	1	1				2
SH-37	6					6
SH-39	5	4	6	3		18
SH-3E	4	5	8		1	18
SH-77H	13	9	7		1	32
SH-9	93	41	57	12	6	209
SH-9A	4	1	2	2		9
US-177	5	8	4	3	1	21
US-270	21	4	5			30
US-77	57	14	18	6	2	97
Total	399	207	254	76	24	960

Most of collisions occurred on SH-9. This highway is a known high-risk roadway, and ODOT has assigned roadway improvements within the last several workplans. As for the other roadway departures, the strategies below outline how the AST can address and coordinate with the counties, cities, and state to employ safety countermeasures where appropriate.

Strategies

Engineering

- Identify locations where greater incidences of RwDs occur
- Conduct a study of roadway deficiencies that are known to contribute to RwDs
- Conduct a study of driver conditions to determine the influence of driver behavior in RwDs
- Develop a Roadway Departure Strategic Plan
 - https://safety.fhwa.dot.gov/roadway_dept/docs/rwd_strategic_plan_version2013.pdf
- Implement known effective RwD countermeasures
 - https://www.fhwa.dot.gov/innovation/everydaycounts/edc_5/roadway_departures.cfm
- Correct roadway deficiencies shown to be linked to RwDs
- Improve signage at critical locations
- Apply high-friction surface treatments (HFST) at critical locations
 - https://safety.fhwa.dot.gov/roadway_dept/pavement_friction/high_friction/

Intersections

In order to determine the most at-risk intersections, ArcGIS tools were used to integrate the individual crashes that occurred at the same location (within 100 feet of one another) and then the collect events tool converted the points into weighted point data (ICOUNT). The purpose of this analysis is to reveal the locations of greater numbers of crashes. Figure 7 is a map that shows the high-incident intersections.

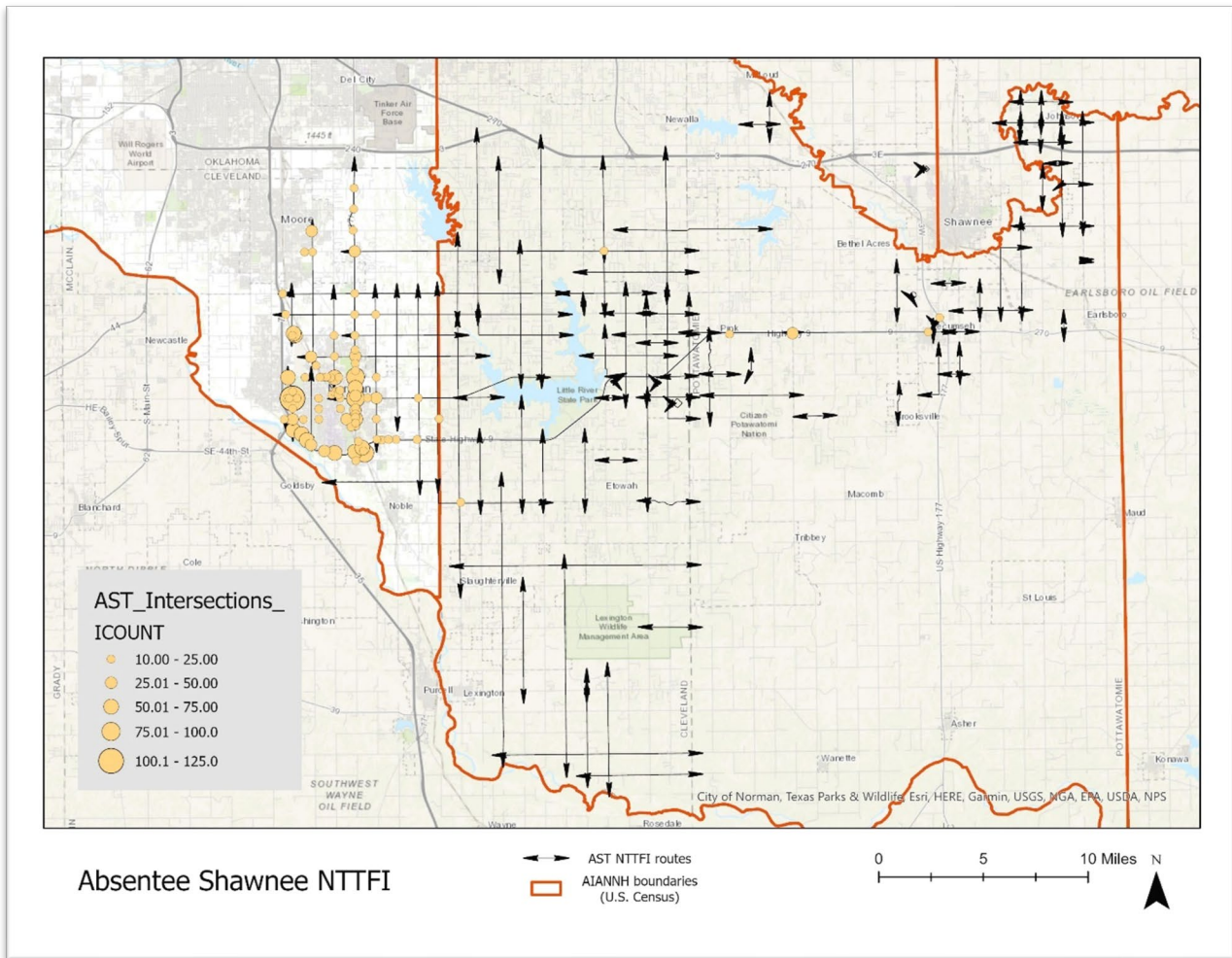


Figure 7. AST Intersection collisions – ICOUNTS

As would be expected, intersection collisions were most prevalent within the urban areas. Although the AST has not previously collaborated with the cities where AST routes overlay the local roads, transportation safety countermeasures would be worth exploring for these NTTFI routes that serve these communities. Table 4 lists the AST routes that have been identified as high-risk for intersection collisions. This list does not include any high incident locations along SH-9.

Table 4. AST NTTFI routes - high incident intersections

AST NTTFI ROUTE	ROAD NAME
8824, 8969, 9329	Peebly Rd & SE 149 th St
8973 & 9331	Etowah Rd & 72 nd Ave
8961	S Bryant
8962	24 th Ave NW
8972	Franklin St
9325	12 th Ave NE / SH 77H
9333	Alameda St
9334	Tecumseh Rd
9335	Rock Creek Rd

The FHWA provides resources and effective countermeasures for intersection related crashes, including innovative intersection solutions.

Strategies

Engineering

- FHWA Intersection Safety
 - <https://safety.fhwa.dot.gov/intersection/>
- Conduct a study of high-incident intersections to determine best countermeasures
 - Improve signage
 - Correct roadway deficiencies

Distracted Driving / Impaired Driving

Distracted Driving is an unsafe driving behavior that has grown with advancements in technology and reliance upon smart phones. According to the National Highway Traffic Safety Administration (NHTSA), distracted driving claimed over 3,142 lives in 2020, a number that has been trending upward over the last several years. In 2015, Oklahoma became the 46th state to ban texting while driving. However, law enforcement officials have stated that this ban is difficult to enforce given privacy laws and the ability of law enforcement to indisputably observe the behavior. INATTENTIVE behavior is the most cited unsafe / unlawful behavior, recorded for 23.7% of the crashes. The other contributing unsafe behaviors are failure to yield and following too closely, both of which are correlated to distracted driving.

Impaired Driving was cited for a very small percentage of the crashes (3.9%). Most of the crashes occurred within the City of Norman, especially near the campus of the University of Oklahoma. The survey responses track with the crash data, indicating that distracted driving is a major concern within the AST road network.

Strategies

Education

- Incorporate existing resources into education programs and community outreach
 - Parents are the Key: <https://www.cdc.gov/parentsarethekey/>
 - Alive at 25: <https://www.oksafety.org/aliveat25>
 - NHTSA: <https://www.nhtsa.gov/risky-driving>
- Continue to develop and improve programs to discourage DUI and distracted driving for the tribal and surrounding communities

Enforcement

- Develop a tribal road safety program using the guidelines as outlined in the Roadway to Safety Tribal Communities Toolkit
 - <https://www.cdc.gov/motorvehiclesafety/native/toolkit.html>
 - Collaborate with county, state, and other local law enforcement officials

Pedestrian / Bicycle

Across the country, pedestrian safety is common to all Tribes, regardless of population or land holdings. Native Americans have the highest pedestrian fatality risk of any racial group. The lack of pedestrian infrastructure contributes to the risk. The AST road network is atypical of other tribal areas because it includes the urban area of Norman where 94 of the 103 (91.3%) pedestrian/bicycle collisions occurred. These collisions are primarily attributed to inattentiveness or failure to yield. Again, the AST has the opportunity to work with the City of Norman to address pedestrian/bicycle safety concerns along those routes within the NTTFI.

The rural pedestrian/bicycle collisions are scattered throughout the AST road network with various contributing factors. The Oklahoma Highway Safety Office (OHSO) has an interactive crash map that provides details about crashes throughout the state, including those that involve pedestrians and bicyclists. Unfortunately, rural pedestrian crashes are often the result of the pedestrian under the influence, as is the case for the AST pedestrian severe collisions. Education and enforcement are the keys to preventing those crashes that are the result of human behaviors.

Strategies

Engineering

- Identify locations where pedestrian crossings are needed
 - Apply Pedestrian and Bicycle Safety Countermeasures
 - <http://pedbikesafe.org/>
- Research various pedestrian crossings and implement the best options into design plans
- FHWA Pedestrian and Bicycle Program:
https://www.fhwa.dot.gov/planning/processes/pedestrian_bicycle/

Education & Enforcement

- Integrate pedestrian and bicycle safety into existing community programs

- Develop tribal programs focused on pedestrian / bicycle safety for pedestrians and bicyclists
- Collaborate with local law enforcement to prevent and counteract behaviors that lead to conflicts between drivers and non-drivers

Speed

Speeding is an aggressive driving behavior that results from traffic, running late, anonymity, and a disregard for others and for the law. According to NHTSA, speeding is involved in nearly one-third of all motor vehicle fatalities., and nearly half occur on lower speed collector and rural roads. Speed is complex because it involves driver behavior plus Engineering, Education, and Enforcement. Speed is heavily influenced by the age of the driver (higher fatalities among younger male drivers) and alcohol-impairment.

According to OHSO, unsafe speeds accounted for 8,901 crashes in 2019 in Oklahoma. Nearly 40% resulted in a serious or fatal crash. Of the 4,916 crashes within the AST dataset, 242 (4.9%) cited speed as the primary contributing factor. Seventy-four resulted in severe collisions of which 9 were fatalities. Once again, the speed related crashes were prevalent along the state highways. However, several severe speed collisions occurred along Peebly Rd, north of the Little Axe area.

Strategies

Engineering

- Establish speed limits that are appropriate to the primary purpose of the road
- Design roads that produce desired speeds
- Implement countermeasures that induce drivers to travel at the desired speed
 - FHWA
 - <https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/812202-countermeasures-that-work-8th.pdf>
- Conduct Road Safety Audit of high risk roads
 - Assess road design and engineering measures for safe and reasonable speed limits

Education & Enforcement

- Incorporate existing resources into education programs and community outreach
 - Parents are the Key: <https://www.cdc.gov/parentsarethekey/>
 - Alive at 25: <https://www.oksafety.org/aliveat25>
 - NHTSA: <https://www.nhtsa.gov/risky-driving/speeding>
 - Obey the Sign or Pay the Fine
 - Stop Speeding Before It Stops You
- Continue to develop and improve programs to discourage risky driving behaviors
- Develop and implement enforcement efforts that target speeding
- Purchase and train law enforcement officers on the use of speed-measuring devices (i.e., radar and lidar)
- Collaboration among law enforcement agencies

Site Specific Implementation

Little Axe Area

The Little Axe area is part of Norman proper and therefore receives services available through the City of Norman. However, it is a rural area that is defined by the Little Axe School District. Little Axe schools lie just north of SH 9, but the school bus routes run throughout the rural area. Figure 1 shows boundaries of the Little Axe school district with the crash data. Excluding those crashes that occurred along SH 9, the school district experienced 139 crashes. Forty-six of these were severe, including 3 fatalities.

The AST would be willing to work with the Little Axe School District, the City of Norman, and the counties to make safety improvements near the schools or along the bus routes.

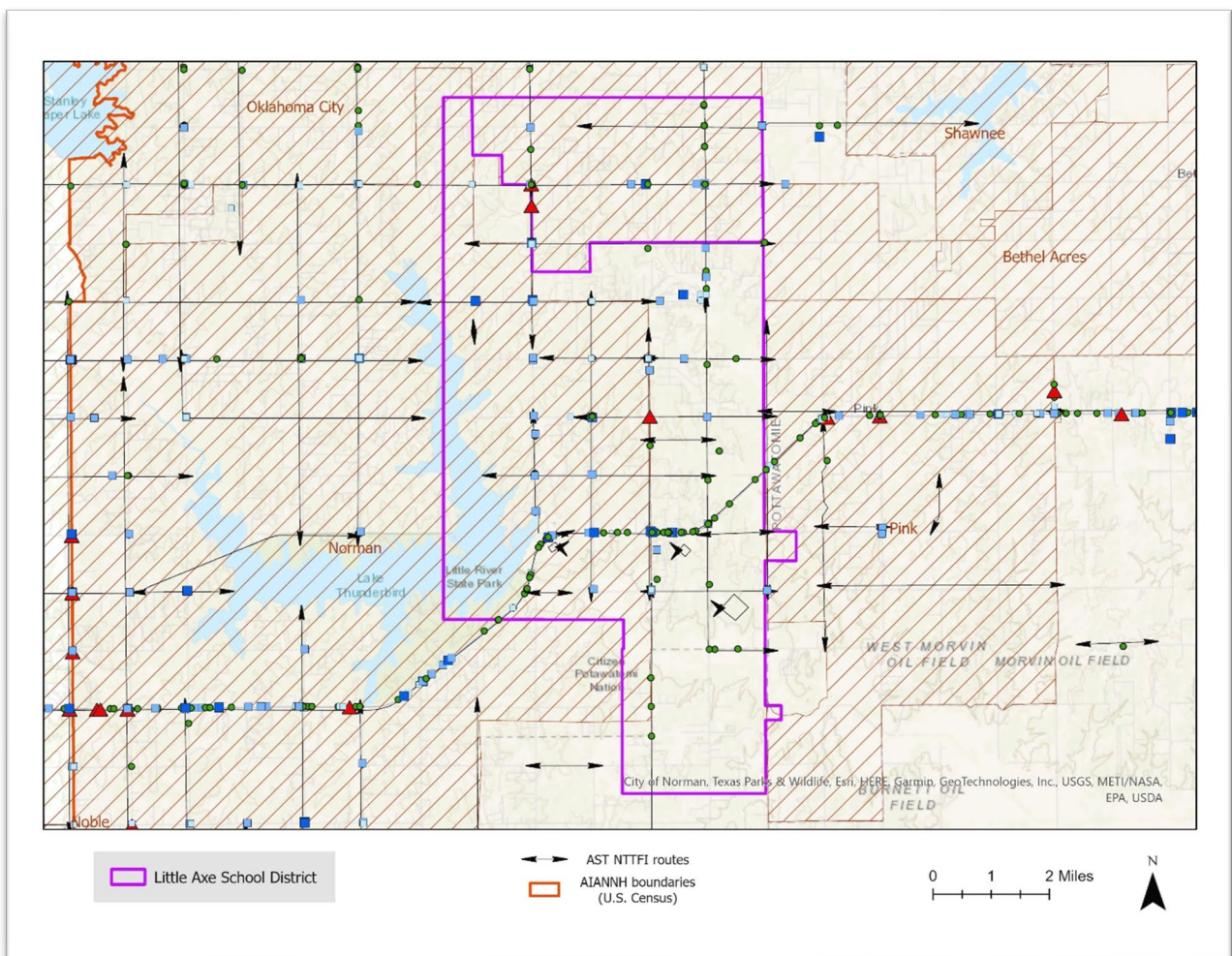


Figure 8. Little Axe School District boundaries

Rural Areas of Concern

Peebly Rd

Peebly Rd was identified within the survey and the public meeting as a safety concern. The crash data confirmed these concerns. Seventy-eight (78) crashes were recorded along Peebly Rd. Twenty-four of these were severe and included 3 fatalities. One of the fatalities involved a pedestrian. Over half (56.4%) of the crashes involved roadway departures. Speed contributed to 11 of the crashes. A map of Peebly Rd can be found within Appendix B.

Table 5. Collisions about Peebly Rd (2017-2021)

Collision Type	Severity					Total
	1	2	3	4	5	
ANGLE-TURNING	6					6
ANIMAL	7	1	1			9
F-O CULVERT	2				1	3
F-O DITCH	1	2	1			4
F-O EMBANKMENT	1		1			2
F-O FENCE			2			2
F-O GROUND			2			2
F-O GUARDRL-END	1					1
F-O OTHER	1					1
F-O POLE-OTHER	1					1
F-O TRAFF-SIGN			1			1
F-O TREE	3	1				4
F-O UTIL-POLE	4	2			1	7
HEAD-ON			1			1
OTHER	2	1	3			6
PEDESTRIAN				1	1	2
REAR-END	2	5	1			8
RIGHT-ANGLE	7	1	1	1		10
ROLLOVER			3			3
SIDESWIPE-OPP	2		1			3
SIDESWIPE-SAME		1	1			2
Total	40	14	19	2	3	78

72nd Ave SE from SH 9 to Slaughterville

From SH 9 to Slaughterville, 72nd Ave SE runs south for 6.5 mi and is riddled with crashes, all of which are intersection related. This section of roadway is identified as NTTFI Route 9331 and saw 30 collisions, 5 of which were severe and included 3 fatalities. Figure 9 is a map of this roadway of concern. A table of the collisions can be found in Appendix B.

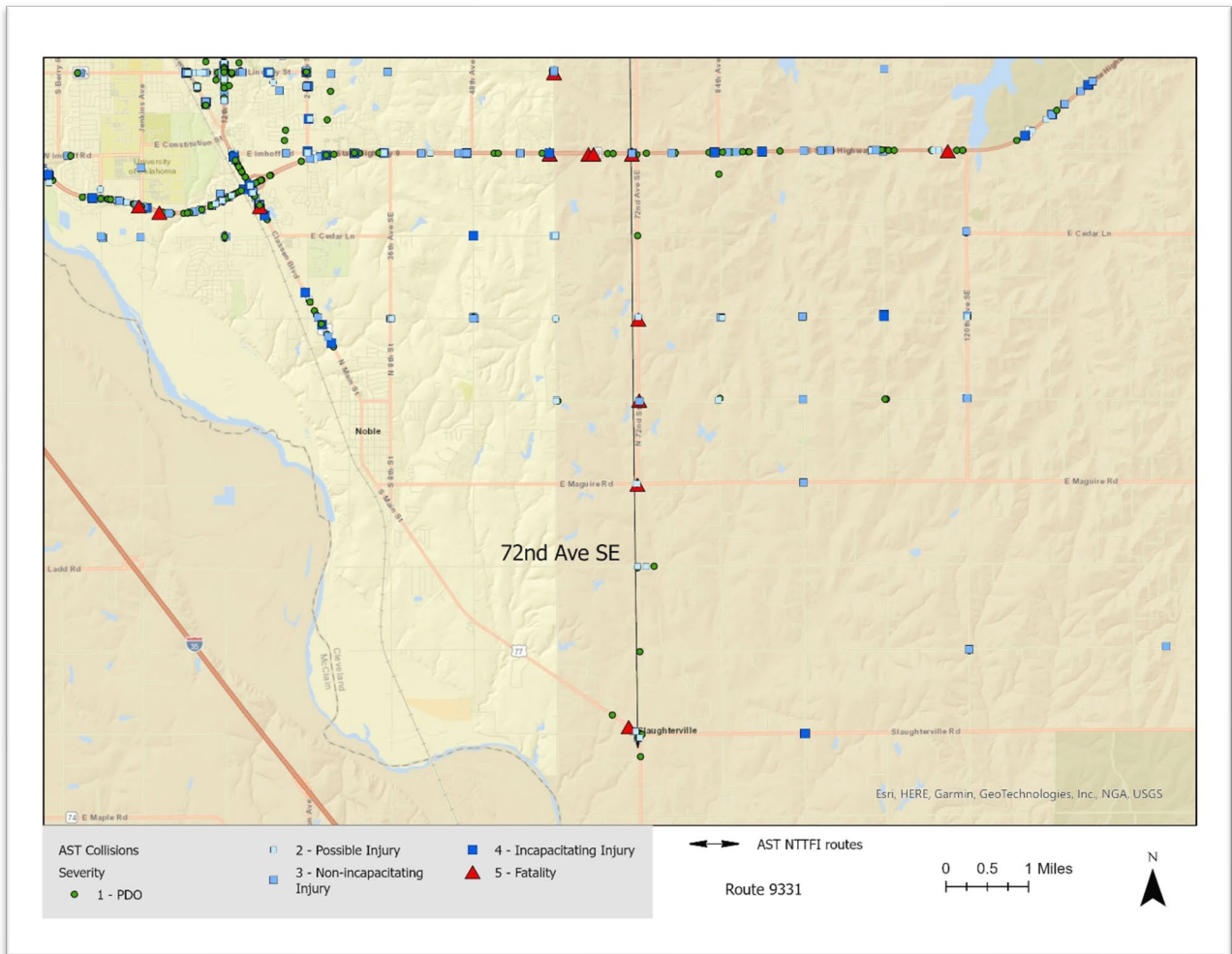


Figure 9. Crashes along 72nd Ave SE

East of Lexington

Several collisions have occurred east of the town of Lexington along SH 39. SH 39 is not part of the AST NTTFI, but the intersecting roadways are in the NTTFI. At the intersection with 96th St (NTTFI Route 9336) and SH 39, 8 collisions were recorded resulting in 3 severe. Collisions occurred at the other intersecting roadways: 144th St (NTTFI Route 9339) and 156th St (NTTFI Route 9340). A map of the crashes east of Lexington have been included within Appendix B.

Cities of OKC, Moore, Norman, and Noble

The AST has NTTFI routes that run throughout the cities of Oklahoma City, Moore, Norman, and Noble. These routes fall within an urban context and thus the AST has the unique opportunity to partner with the cities for transportation safety improvements. The AST has an established working relationship with Cleveland County. At the public meeting, the county

officials offered to connect with the cities for those roadways that fall within the city-maintenance jurisdictions.

Figure 10 is a map showing the NTTFI routes and the municipal boundaries. A crash data map is included within Appendix B. It is the goal of the AST to foster and continue relationships with the counties and cities for the benefit of AST tribal members and residents of Oklahoma.

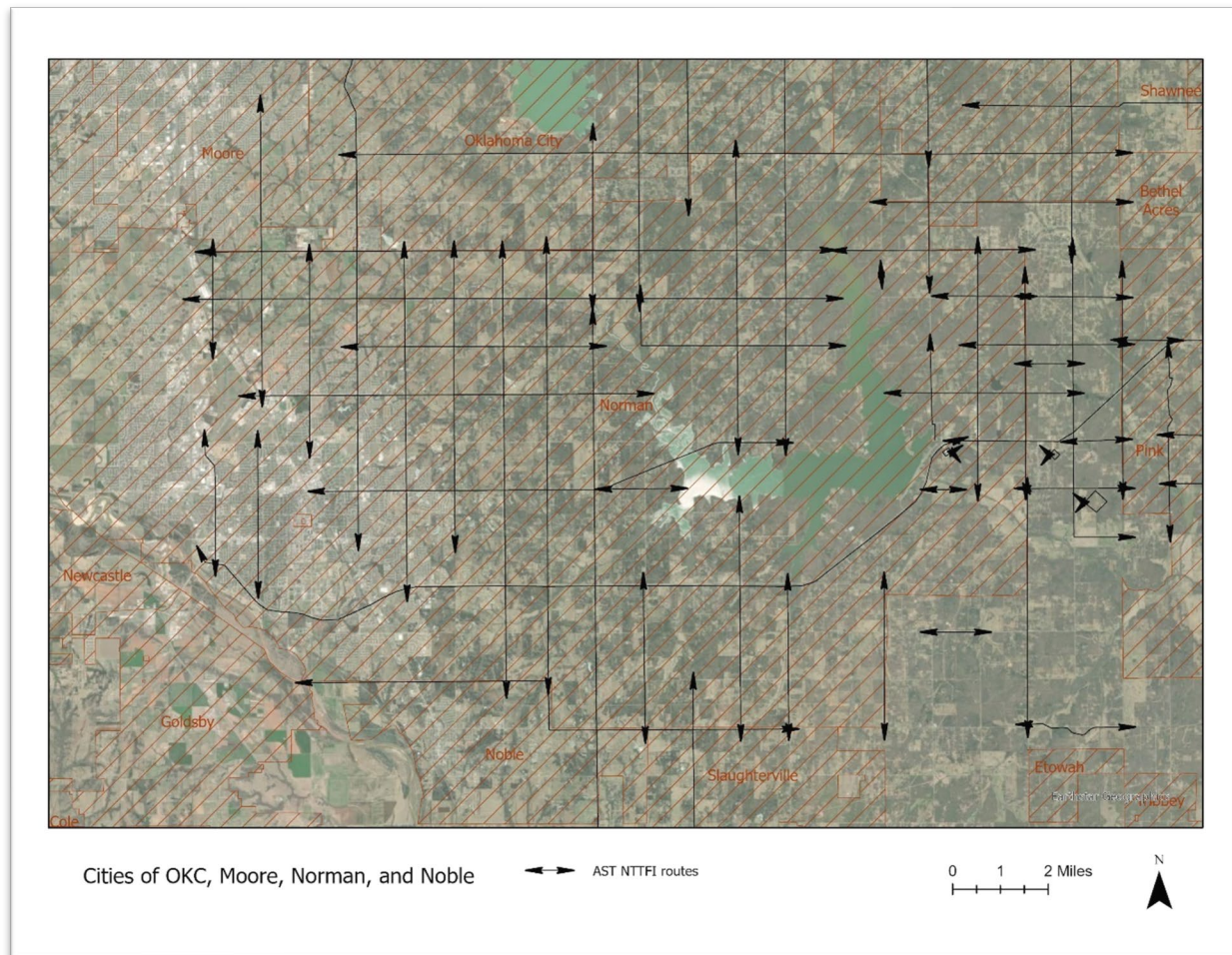


Figure 10. AST NTTFI routes and municipal boundaries

Strategies

Engineering

- Conduct an intersection safety evaluations of the high-risk intersections
- Conduct a Road Safety Audit (RSA) of roadways of concern
- Coordinate and collaborate with ODOT and the Counties and Cities for potential safety improvement projects
 - Correct roadway deficiencies
 - Implement known effective countermeasures

Additional Transportation Safety Funding Sources

The purpose of the transportation safety plan is to identify concerns and explore countermeasures to reduce crashes and encourage safe driving behaviors. This plan has been funded with TTP safety funds, but the plan is not to be developed with a focus on any single funding source. The Federal-Aid Highway Program supports the interstate highway systems, state highways, and local roads by providing financial assistance for construction, maintenance, and operations of the road networks. Below are some of the safety funds that are available.

Transportation Safety Resources

- State and Community Highway Safety Grant Program (Section 402)
 - <https://www.ghsa.org/about/federal-grant-programs/402>
- NHTSA Highway Safety Grant Program
 - <https://www.nhtsa.gov/highway-safety-grants-program>
- Alcohol-Impaired Driving Countermeasures Incentive
 - <https://www.nhtsa.gov/risky-driving/drunken-driving>
- Highway Safety Improvement Program (HSIP)
 - <https://safety.fhwa.dot.gov/hsip/>
- Child Safety – Booster Seat
 - <https://www.nhtsa.gov/equipment/car-seats-and-booster-seats>
- Occupant Protection
 - <https://www.nhtsa.gov/occupant-protection>
- Motorcyclist Safety
 - <https://www.nhtsa.gov/road-safety/motorcycle-safety>
- Safe-Routes-to-School
 - <http://www.saferoutesinfo.org/>
- Oklahoma DOT Transportation Alternatives Program
 - [https://www.ok.gov/odot/Doing_Business/Local_Government_Resource_Center/Transportation_Alternatives_Program_\(TAP\)/index.html](https://www.ok.gov/odot/Doing_Business/Local_Government_Resource_Center/Transportation_Alternatives_Program_(TAP)/index.html)
- Safe Streets for All
 - <https://www.transportation.gov/grants/SS4A>

Conclusion

This Transportation Safety Plan was developed based on the National Tribal Transportation Safety Plan emphasis areas and results of crash data within the jurisdictional area of the Absentee Shawnee Tribe of Oklahoma. Strategies for addressing the emphasis areas were derived from the Es: Engineering, Enforcement, Education, and Emergency Medical Services. The AST Transportation Safety Plan is intended to be a dynamic document that can and will adapt to roadway improvements, legislation changes, and technological advances. The purpose of this plan is to guide the AST with transportation safety improvements and position them for competitive funding opportunities.

References

Federal Highway Administration. USDOT. Developing Safety Plans: A Manual for Local Rural Road Owners. US Department of Transportation. <http://safety.fhwa.dot.gov>.

Federal Highway Administration. USDOT. Office of Safety. <http://safety.fhwa.dot.gov/>.

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Oklahoma Department of Transportation. Statewide Analysis for Engineering & Technology (SAFE-T). <http://www.oksafe-t.org>.

Oklahoma Highway Safety Office. <http://ohso.ok.gov/>.

List of Preparers

This document has been developed and prepared by

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Appendix A
Transportation Safety Survey

Appendix B
Site Specific Maps and Data

Appendix A
Transportation Safety Survey

OCCUPANT PROTECTION

Answer Choice	Response Count	Response Percentage
Adequately Addressed	12	25%
Minor Concern	11	23%
Major Concern	13	27%
Top Priority	11	23%
Total Responses	47	

OCCUPANT PROTECTION: Please share concerns you have about buckling up babies, children, and other passengers.

all toddlers and children should be in a carseat

seatbelts can save lives when an individual is buckled in

seatbelts and car seats saves lives. But the high end car seats are to expensive for most parents

Seat belts should always be utilized and Child/ baby care seats are not optional. Help making sure people have access to child restraints that are having financial difficulty could be beneficial.

ROADWAY DEPARTURES

Answer Choice	Response Count	Response Percentage
Adequately Addressed	10	21%
Minor Concern	5	10%
Major Concern	20	42%
Top Priority	12	25%
Total Responses	47	

ROADWAY DEPARTURES: Please share any specific roadways that you know are dangerous, especially those with crashes where cars leave the roadway.

peebly rd

180th rd sides of roads are hazardous

to many to list

Absentee Shawnee
Transportation Safety Survey

July 2022

IMPAIRED DRIVING

Answer Choice	Response Count	Response Percentage
Adequately Addressed	9	19%
Minor Concern	11	23%
Major Concern	16	34%
Top Priority	11	23%
Total Responses	47	

IMPAIRED DRIVING: Please share concerns you have about where and why people drive while impaired.

drunk drivers kill innocent drivers

need more police in the rural areas

the casino in the Little Axe area. HWY 9 is a dangerous road lots of accidents even when alcohol is not involved

DISTRACTED DRIVING

Answer Choice	Response Count	Response Percentage
Adequately Addressed	6	12%
Minor Concern	6	12%
Major Concern	23	48%
Top Priority	12	25%
Total Responses	47	

DISTRACTED DRIVING: In this age of cell phones, how do you think we can decrease distracted driving?

no cell phones in car will get a ticket? ???

when cell phones first came out the laws were very strict and law enforcement would issue a citation if you were caught using cell phone while driving. now law enforcement are on the phone and do not pay attention if you are on the phone.

Absentee Shawnee
Transportation Safety Survey

July 2022

PEDESTRIANS

Answer Choice	Response Count	Response Percentage
Adequately Addressed	10	21%
Minor Concern	20	42%
Major Concern	12	25%
Top Priority	5	10%
Total Responses	47	

PEDESTRIANS: Where do you think pedestrians are most vulnerable? Where do you think that more pedestrians pathways (crosswalks) should be installed.?

not sure as live in a rural area

when they don't use crosswalks. our crosswalks need to be repainted

AVAILABILITY OF PUBLIC SAFETY SERVICES

Answer Choice	Response Count	Response Percentage
Adequately Addressed	17	36%
Minor Concern	10	21%
Major Concern	8	17%
Top Priority	12	25%
Total Responses	47	

AVAILABILITY OF PUBLIC SAFETY SERVICES: How do you feel about response times and the availability of emergency services?

in the rural area it takes more time for emergency services to react, plus all address and roads are not updated as they should be

not understanding question

SPEED

Answer Choice	Response Count	Response Percentage
Adequately Addressed	9	19%
Minor Concern	14	29%
Major Concern	15	31%
Top Priority	9	19%
Total Responses	47	

SPEED: What speeding hazards have you observed in your areas?

doesnt matter what you do people will speed in any area.

no one obeys

Absentee Shawnee
Transportation Safety Survey

July 2022

YOUNGER DRIVERS / OLDER DRIVERS

Answer Choice	Response Count	Response Percentage
Adequately Addressed	6	12%
Minor Concern	19	40%
Major Concern	15	31%
Top Priority	7	14%
Total Responses	47	

YOUNGER DRIVERS / OLDER DRIVERS: Please comment on any observations of and resources available to younger (16-20) & older (65+) drivers,

younger drivers are always on their cell phone and or playing around. Not being responsible

elderly drivers should retest at age 60,65,70,71 and so fourth.

ANIMAL - VEHICLE CRASHES

Answer Choice	Response Count	Response Percentage
Adequately Addressed	9	19%
Minor Concern	19	40%
Major Concern	12	25%
Top Priority	7	14%
Total Responses	47	

ANIMAL-VEHICLE CRASHES: Are animal-vehicle crashes a concern? If so, where do they tend to occur?

there are so many stray animals in the area, sometimes it can not be helped as they are just wondering the street

yes any place on Hwy 9

they do happen and sometimes there is nothing you can do. paying attention helps eliminate most of the accidents and certain times of the year animals are more active around roads

LOCATIONS OF CONCERN

peebly road

180th rd

Harrah Newalla rd

the 90 degree turn on 156 ave. by thunderbird lake

**Absentee Shawnee
Transportation Safety Survey**

July 2022

RESPONDENTS

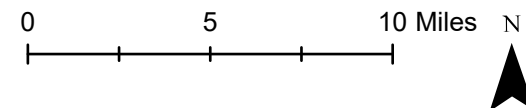
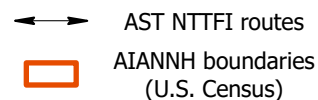
Role within the AST community (you may select multiple options):

Answer Choice	Response Count	Response Percentage
Tribal Member	17	36%
Tribal Employee	30	63%
Other	0	0%
Total Responses	47	

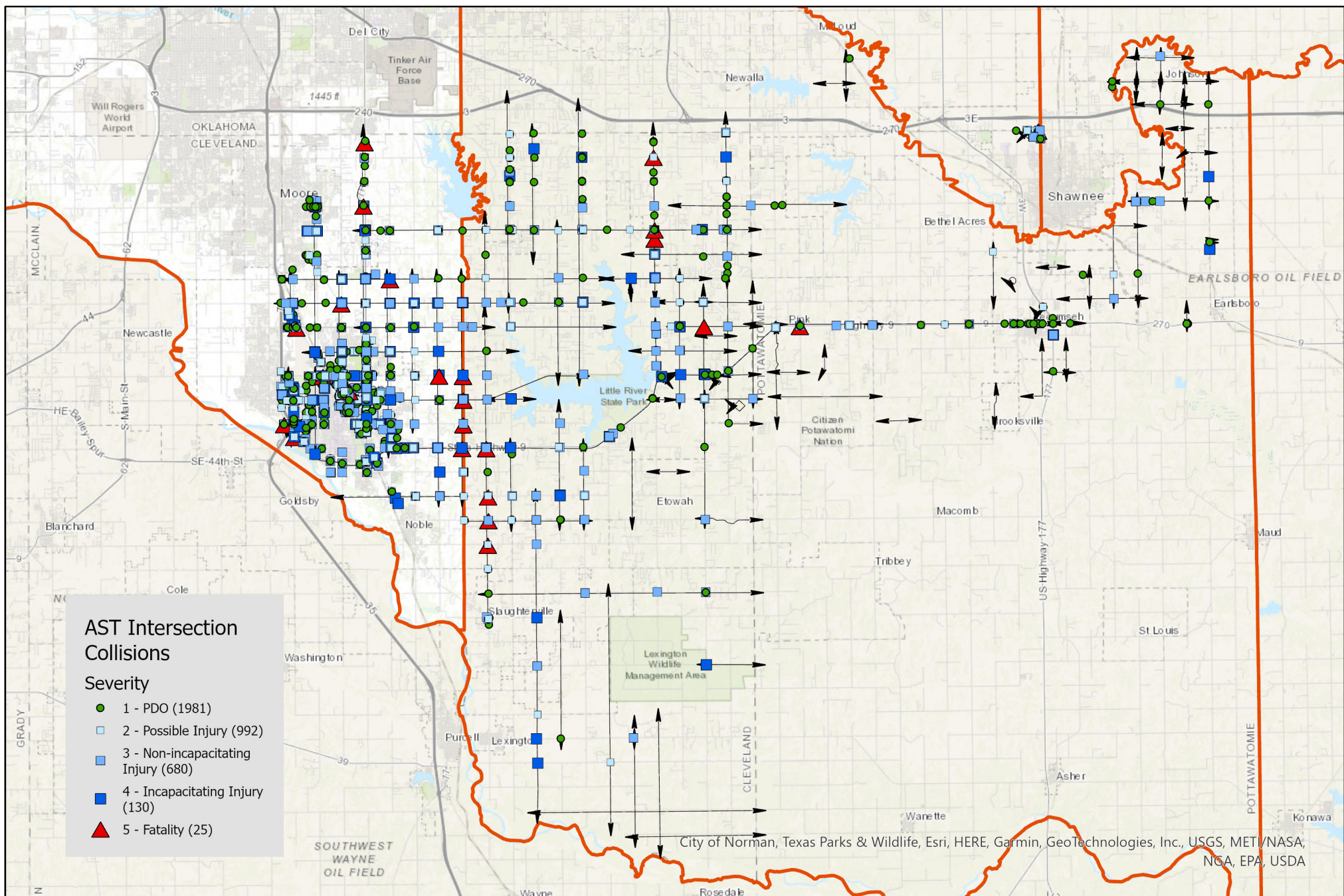
Community of Interest:

Answer Choice	Response Count	Response Percentage
Little Axe	28	59%
Shawnee	16	34%
Other	3	6%
Total Responses	47	

Appendix B
Site Specific Maps and Data



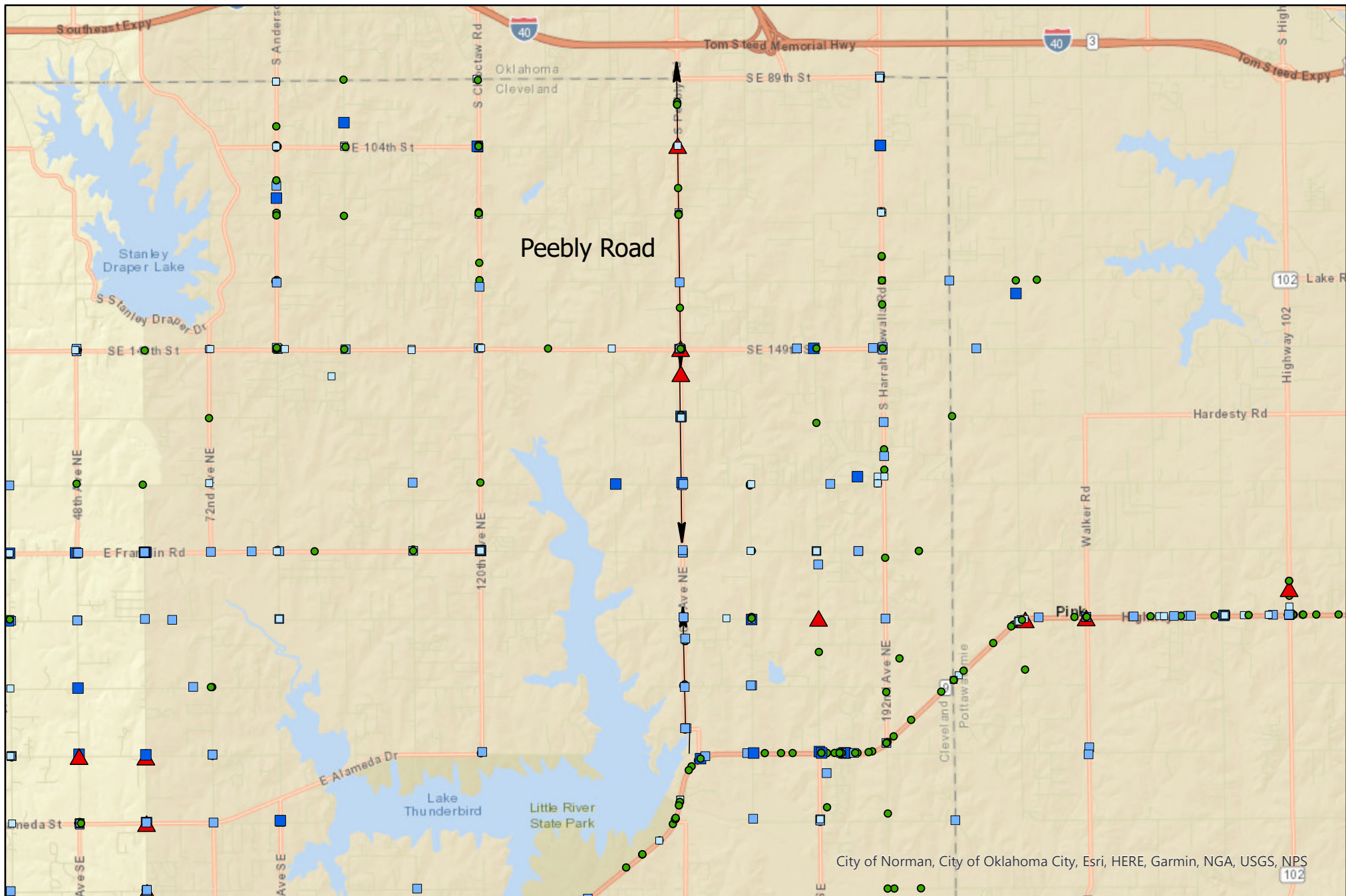
Absentee Shawnee NTTFI



Absentee Shawnee NTTFI

← → AST NTTFI routes
 AIANNH boundaries (U.S. Census)

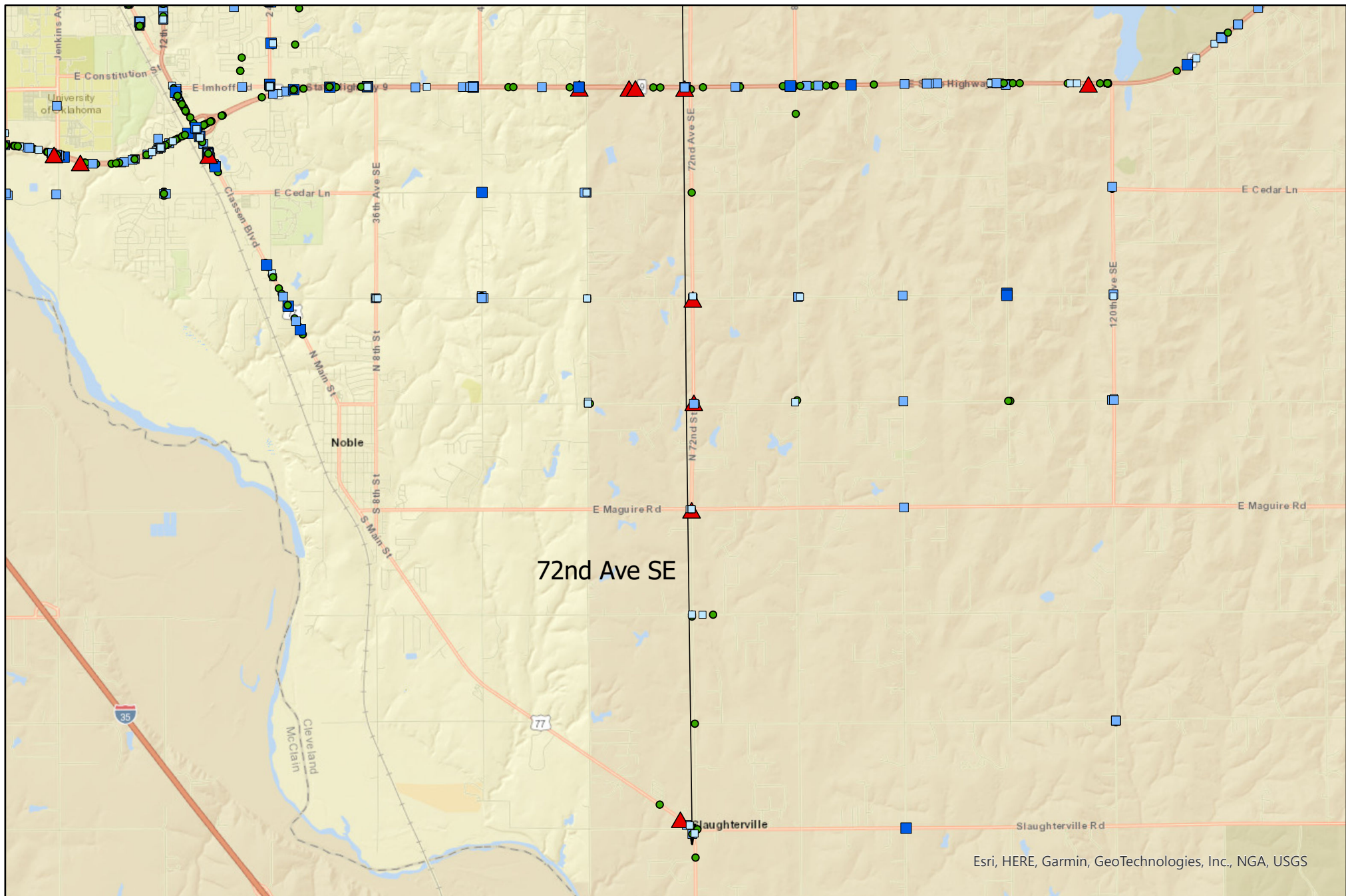
0 5 10 Miles N



Routes 8824 & 9329

0 1 2 Miles





AST Collisions
Severity

- 1 - PDO

- 2 - Possible Injury
- 3 - Non-incapacitating Injury

- 4 - Incapacitating Injury
- ▲ 5 - Fatality

↔ AST NTTFI routes

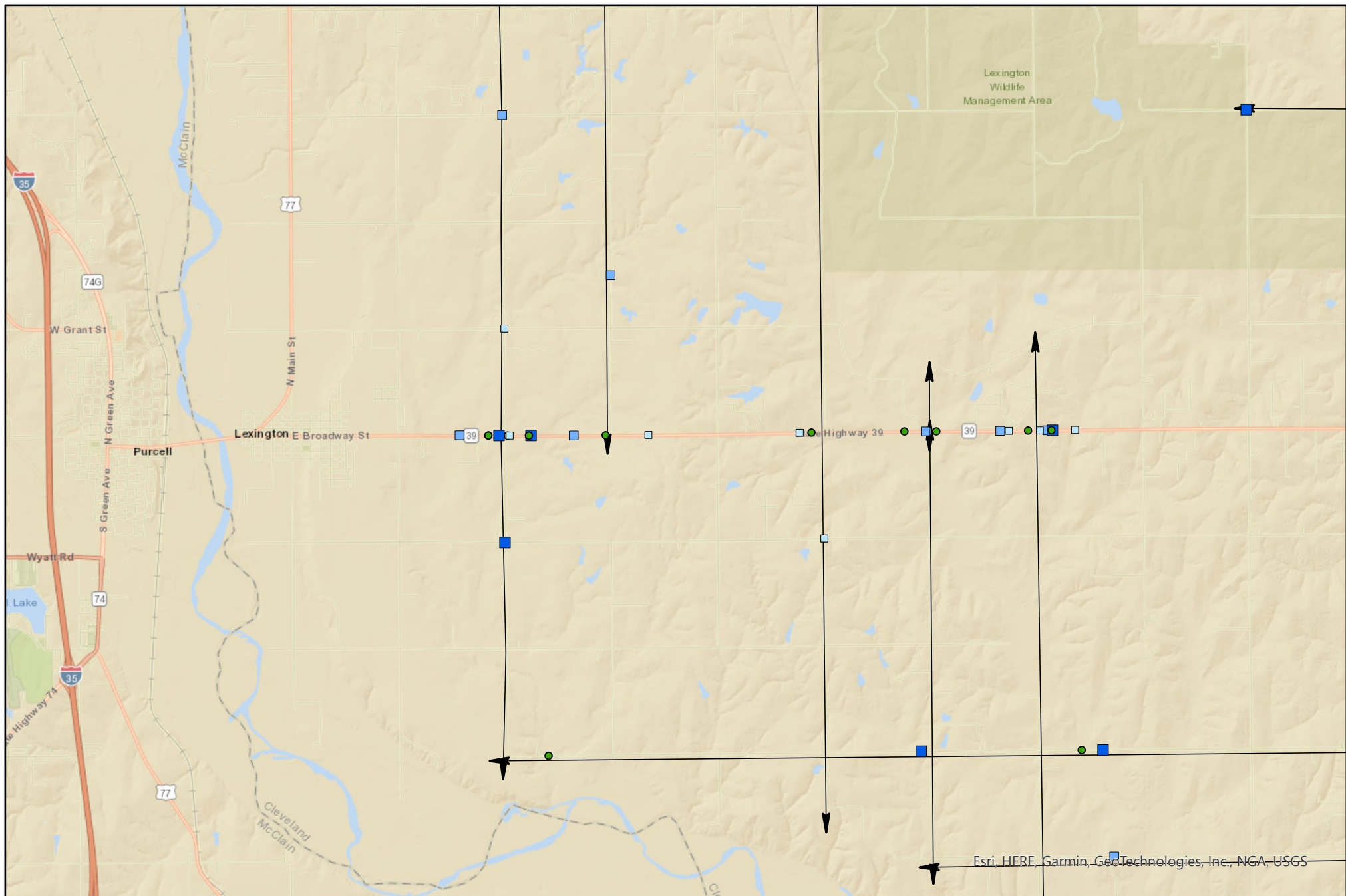
Route 9331

0 0.5 1 Miles



Crashes along 72nd Ave SE (from SH 9 south to Slaughterville)

Int_Rel	Type_of_Collision	Severity	Unsafe_Unlawful	Roadway_Departure
1	F-O FENCE	1	F-YIELD	Fixed Object
6	SIDESWIPE-OPP	1	L-CENTER	Roadway Departure Right
1	RIGHT-ANGLE	1	F-YIELD	No Roadway Departure
1	ANGLE-TURNING	1	F-YIELD	No Roadway Departure
1	REAR-END	1	INATT	No Roadway Departure
7	F-O FENCE	1	D-W-I	Roadway Departure Left
1	ANGLE-TURNING	1	F-YIELD	No Roadway Departure
1	RIGHT-ANGLE	1	F-YIELD	No Roadway Departure
1	RIGHT-ANGLE	1	F-YIELD	No Roadway Departure
1	REAR-END	1	IMP-TURN	No Roadway Departure
1	ANGLE-TURNING	1	F-YIELD	No Roadway Departure
1	RIGHT-ANGLE	2	F-YIELD	No Roadway Departure
1	RIGHT-ANGLE	2	F-STOP	Fixed Object
1	RIGHT-ANGLE	2	F-YIELD	No Roadway Departure
6	ROLLOVER	2	F-YIELD	Fixed Object
1	RIGHT-ANGLE	2	F-YIELD	Roadway Departure Right
1	RIGHT-ANGLE	2	F-YIELD	No Roadway Departure
1	RIGHT-ANGLE	2	F-STOP	No Roadway Departure
8	F-O CULVERT	2	<Null>	Roadway Departure Right
1	RIGHT-ANGLE	2	F-YIELD	No Roadway Departure
5	F-O DITCH	2	INATT	Fixed Object
1	RIGHT-ANGLE	2	F-STOP	No Roadway Departure
1	RIGHT-ANGLE	2	DEF-VEH	No Roadway Departure
1	RIGHT-ANGLE	2	F-YIELD	Fixed Object
1	RIGHT-ANGLE	2	F-YIELD	No Roadway Departure
1	RIGHT-ANGLE	3	F-YIELD	Roadway Departure Left
1	REAR-END	3	INATT	No Roadway Departure
5	F-O TRAFF-SIGN	5	UNSAF-SPD	Roadway Departure Left
1	RIGHT-ANGLE	5	F-STOP	Roadway Departure Right
1	PEDAL-CYCLE	5	F-YIELD	No Roadway Departure



AST Collisions
Severity

● 1 - PDO

□ 2 - Possible Injury

□ 3 - Non-incapacitating Injury

■ 4 - Incapacitating Injury

▲ 5 - Fatality

↔ AST NTTFI routes

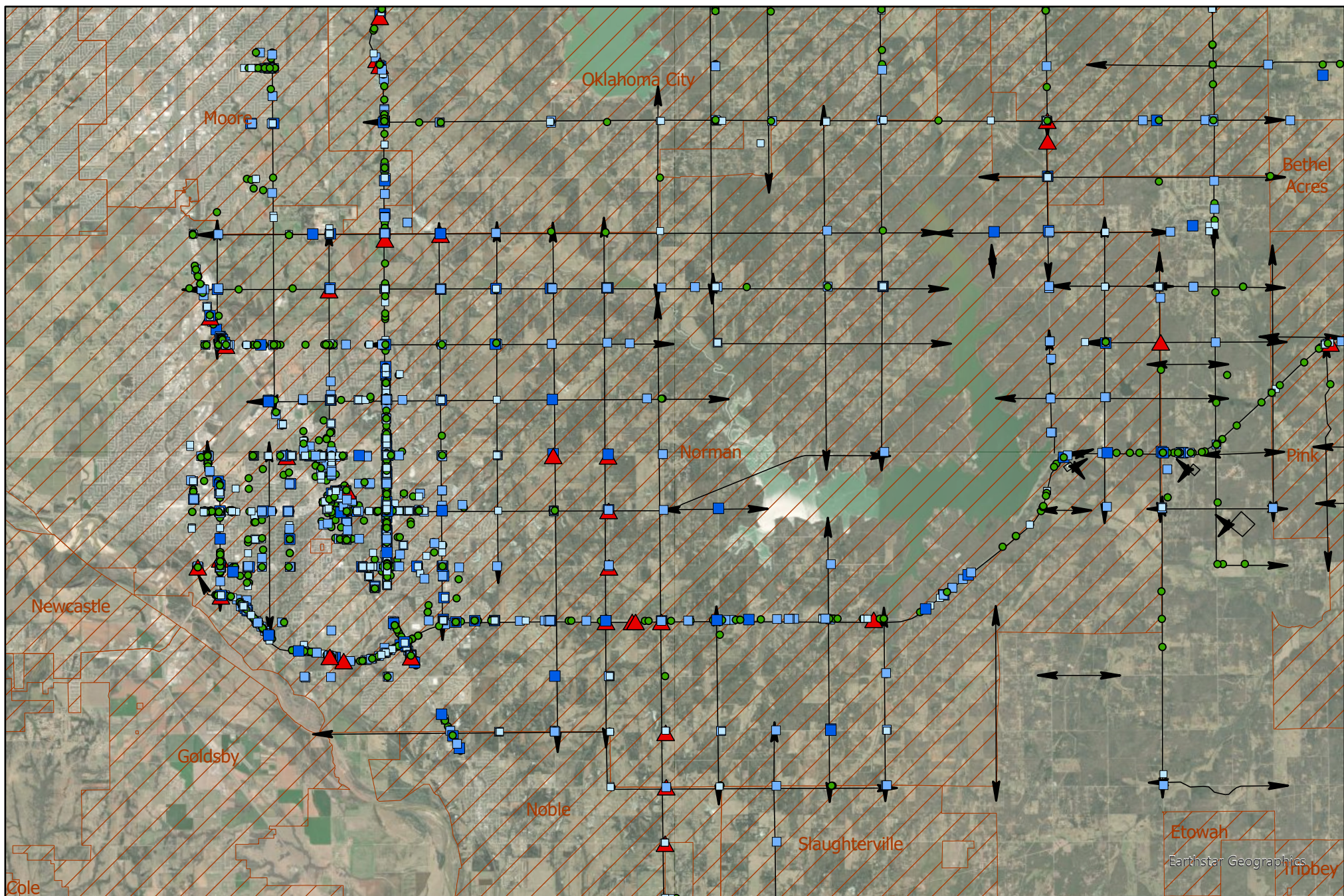
Routes 9936, 9939, 9340

0 0.5 1 Miles

N



Esri, HERE, Garmin, GeoTechnologies, Inc., NGA, USGS



AST Collisions

Severity

● 1 - PDO

□ 2 - Possible Injury

□ 3 - Non-incapacitating Injury

■ 4 - Incapacitating Injury

▲ 5 - Fatality

↔ AST NTTFI routes

Cities of OKC, Moore, Norman, and Noble

0 1 2 Miles

N

