



WAMPO Major State Corridors

Daily Vehicle Miles Traveled (VMT) and
Annual Average Daily Traffic (AADT) Report

June 2024

WAMPO Major State Corridors

2024 Daily VMT and AADT Report

Table of Contents

Background.....	3
Annual Average Daily Traffic (AADT)	4
Vehicle Miles Traveled (VMT)	6
Individual Corridor Reports	8
US-54	9
I-135	10
I-235	11
K-96	12
K-15	13
I-35	14
K-254	15
Data Source, Collection, and Methods	16

WAMPO Major State Corridors

2024 Daily VMT and AADT Report

Background

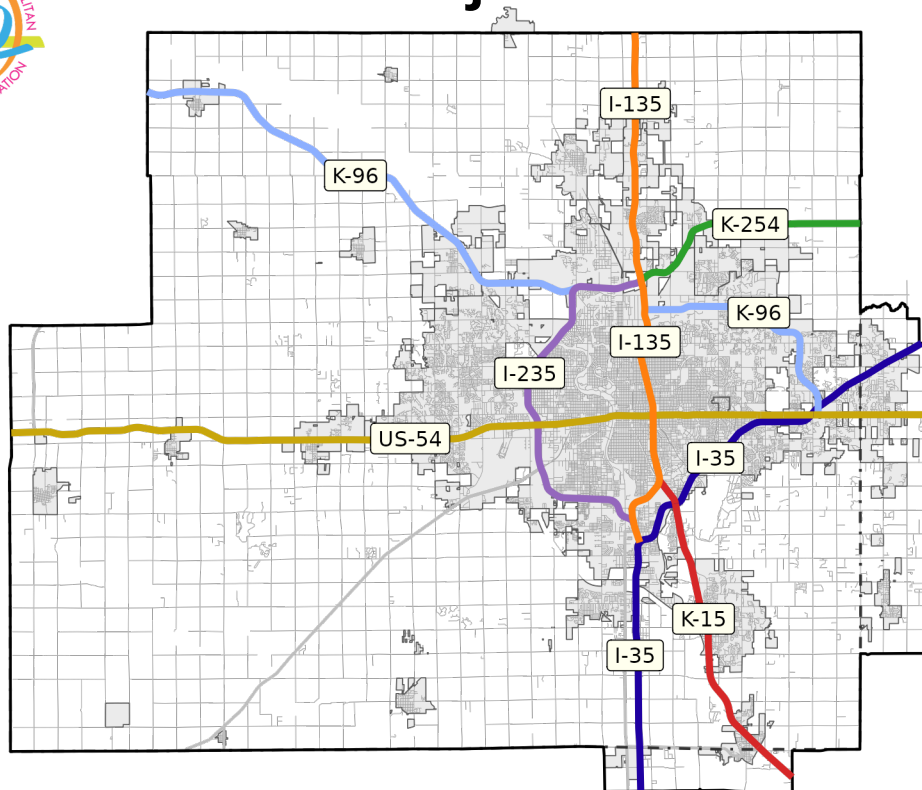
This report explores some of the major corridors in the WAMPO region. These roadways are vital for commuters, commerce, and emergency services, serving as conduits for economic activity and regional development. They also constitute the majority of the state and interstate highway system in the region. This report will focus on the 7 corridors shown below:



WAMPO Major State Corridors

- I-35
- K-254
- K-96
- I-235
- US-54
- K-15
- I-135

- Sedgwick County
- WAMPO
- Boundary



2023 Source Data

The issue date of this report is 2024. However, the most recent available data provided by the Kansas Department of Transportation (KDOT) is from 2023, and is utilized for many of the maps, tables, and charts throughout this report. For more information on the source data of this report please see the Data Source, Collection, and Methods section on page 16.

Key Corridor Metrics

The evaluation and comparison of these corridors' will primarily rely on two key metrics: Vehicle Miles Traveled (VMT), and Average Annual Daily Traffic (AADT). In this report, VMT will indicate the total distance traveled by vehicles on an entire length of a corridor. As opposed to AADT, which measures the average traffic volumes over a year, at a particular location, along a corridor.

WAMPO Major State Corridors

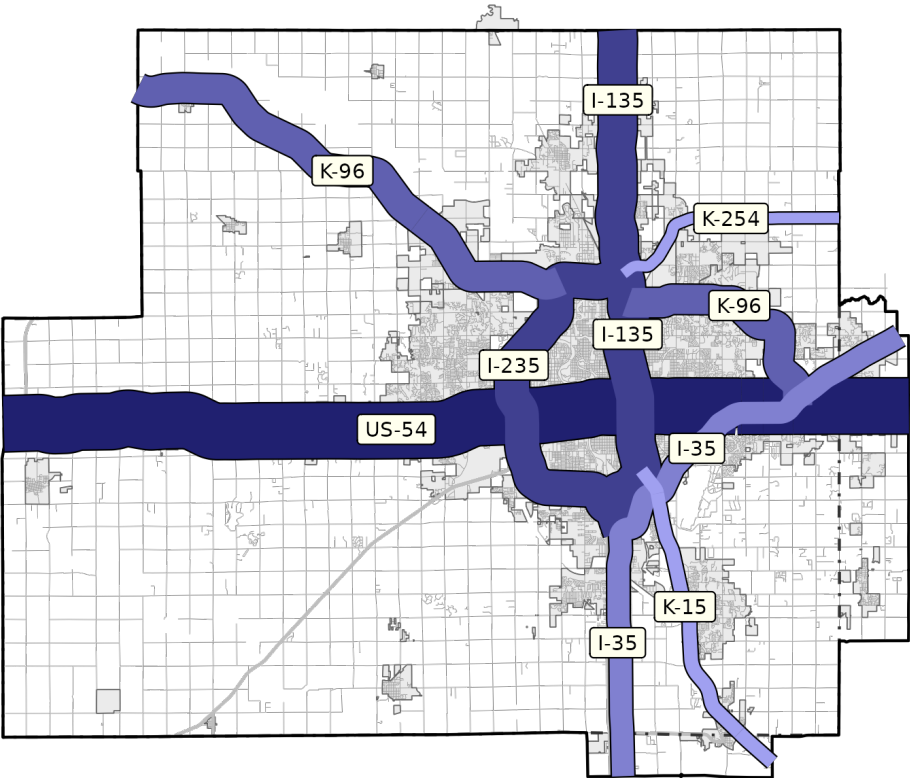
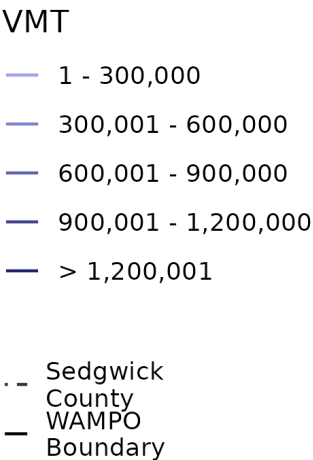
2024 Daily VMT and AADT Report

VTM Background

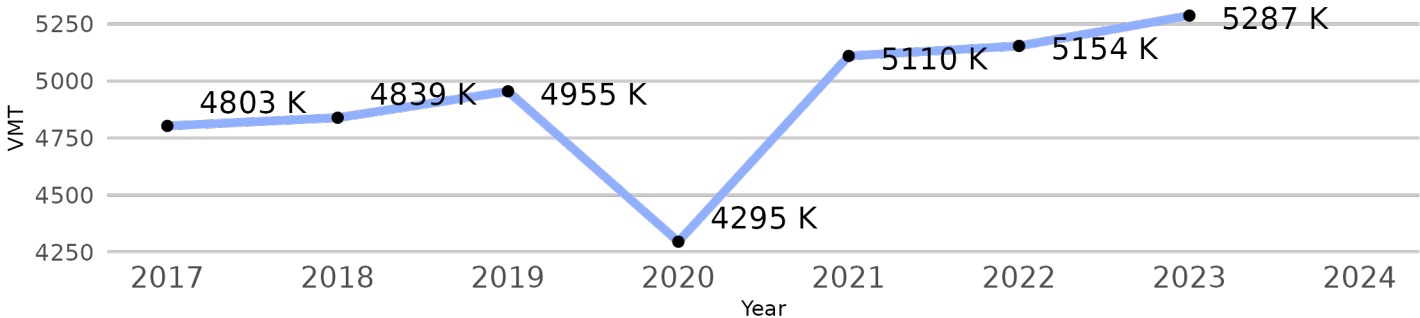
Vehicle Miles Traveled (VMT) is a measure used to quantify the total distance traveled by vehicles within a specified period, often over a day or year. Daily VMT specifically refers to the total mileage driven by vehicles in a single day on a given road, or in the case of this study, an entire corridor. Daily VMT is crucial for understanding the cumulative impact of transportation activities on infrastructure wear, fuel consumption, emissions, and overall road usage patterns. The map below varies the corridor width and color in relationship to its Daily VMT. The chart below looks at the cumulative VMT of all 7 corridors from the years 2017 to 2023.



WAMPO Major State Corridors 2023 Relative Daily VMT Corridor Comparison



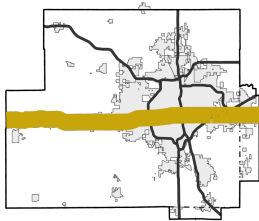
Combined Daily VMT of all 7 major corridors (in thousands)



WAMPO Major State Corridors

2024 Daily VMT and AADT Report

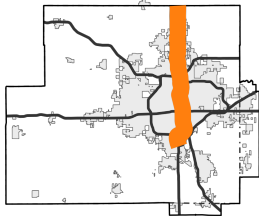
Daily Vehicle Miles Traveled by Corridor in Descending Daily VMT



US-54: Regional Length 39.1 Miles

2023 Daily Vehicle Miles

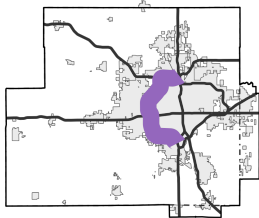
1,637 K



I-135: Regional Length 22.3 Miles

2023 Daily Vehicle Miles

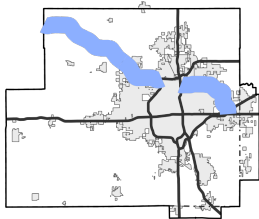
1,059 K



I-235: Regional Length 16.4 Miles

2023 Daily Vehicle Miles

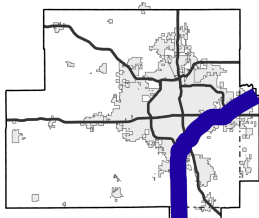
931 K



K-96: Regional Length 32.1 Miles

2023 Daily Vehicle Miles

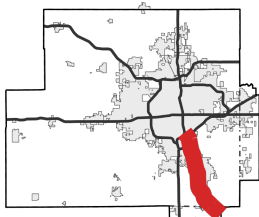
766 K



I-35: Regional Length 25.9 Miles

2023 Daily Vehicle Miles

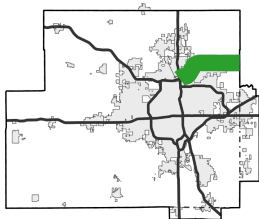
525 K



K-15: Regional Length 14.2 Miles

2023 Daily Vehicle Miles

234 K



K-254: Regional Length 10.4 Miles

2023 Daily Vehicle Miles

135 K

WAMPO Major State Corridors

2024 Daily VMT and AADT Report

AADT Background

Annual Average Daily Traffic (AADT) is a useful and basic measurement that describes traffic levels on a section of road. AADT estimates the total volume of vehicle traffic, in both directions, for a given location along a roadway on an average day during a given year. AADT is one of the most widely used data elements in transportation planning and traffic engineering. There are many uses for AADT in supporting various agency functions related to planning, design, operations, safety, and maintenance.

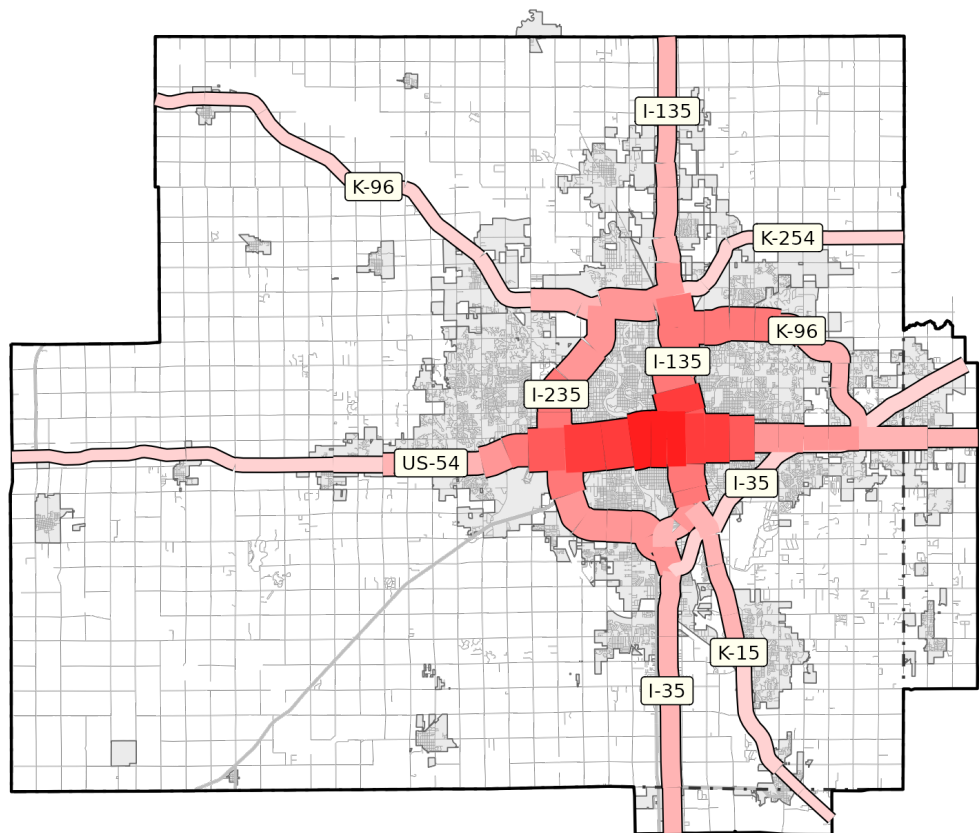


WAMPO Major State Corridors 2023 Relative AADT by road segment

AADT

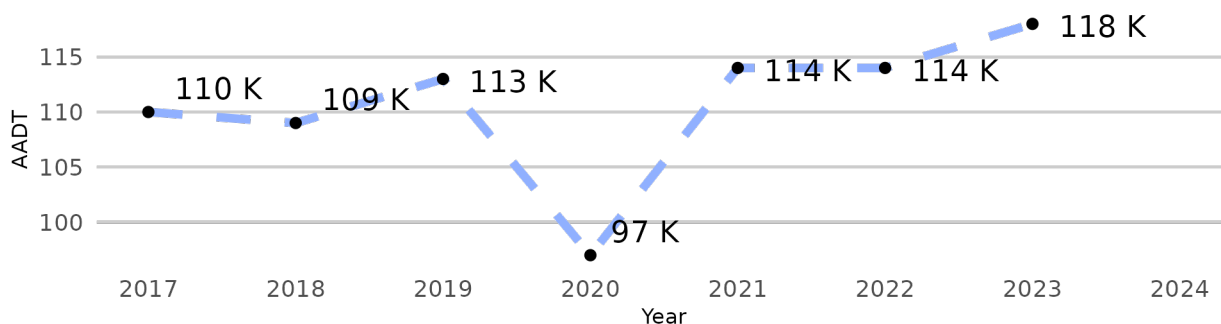
- 1 - 20,000
- 20,001 - 40,000
- 40,001 - 60,000
- 60,001 - 80,000
- 80,001 - 95,000
- 95,001 - 110,000
- > 110,001

--- Sedgwick
County
WAMPO
Boundary



WAMPO's Busiest 2023 Corridor Segment by AADT

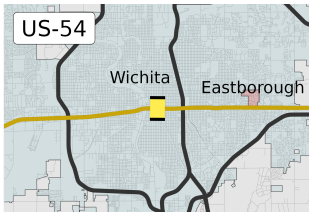
US54: S Main St to S Washington St



WAMPO Major State Corridors

2024 Daily VMT and AADT Report

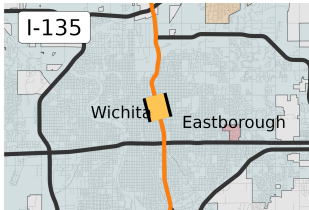
Peak Average Annual Daily Traffic Road Segments by Corridor



US54: S Main St to S Washington St

2023 Annual Average Daily Traffic

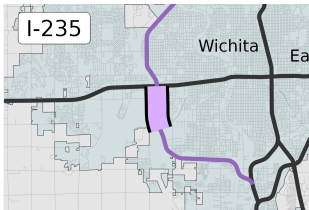
118,000



I-135: W Central Ave. to E 13th st.

2023 Annual Average Daily Traffic

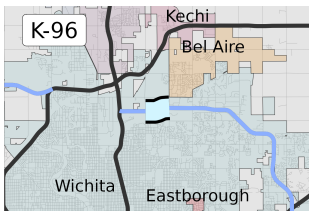
96,000



I-235: Southwest Blvd./KS-42 to I-235/US-54 Junction

2023 Annual Average Daily Traffic

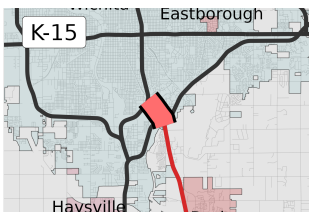
67,000



K-96: N Hillside to N Oliver

2023 Annual Average Daily Traffic

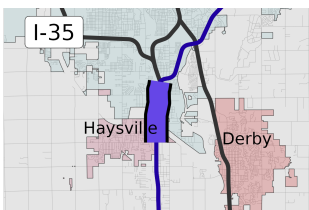
65,000



K-15: E Macarthur Rd/KTA Toll Booth to I-135

2023 Annual Average Daily Traffic

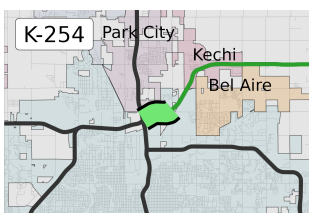
33,000



KTA/I-35: E 71st St. S to KTA/I-135 Junction

2023 Annual Average Daily Traffic

28,000



K-254: I-235/I-135/K-254 Interchange to Hillside st.

2023 Annual Average Daily Traffic

17,000

WAMPO Major State Corridors

2024 Daily VMT and AADT Report



Individual Corridor Reports

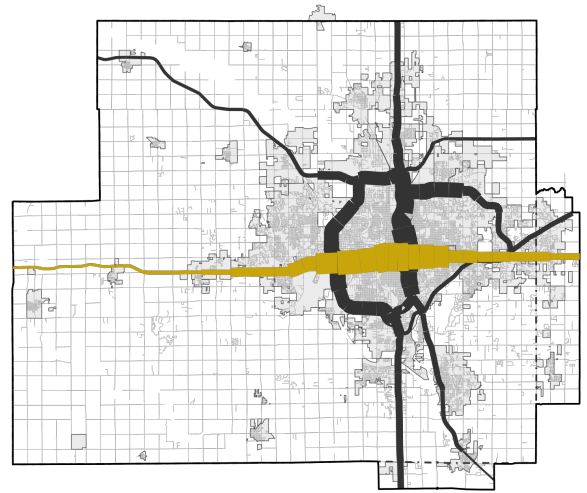
Trends in AADT and VMT from 2017 to 2023.

WAMPO Major Corridors

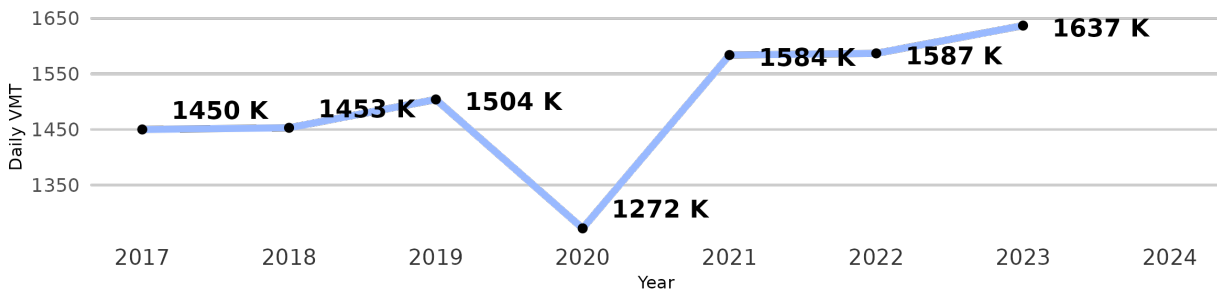
Individual Corridor Report: US-54

Regional Length: 39.1 Miles

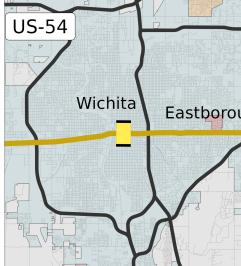
- » 2023 Peak AADT: 118,000 Vehicles
- » 2023 Daily VMT: 1,637,000 Vehicle Miles
- » 7-Year Daily VMT Growth: 32,000 Vehicle Miles/Year



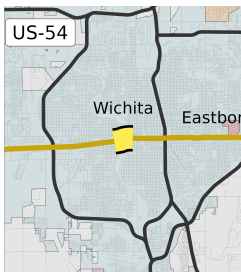
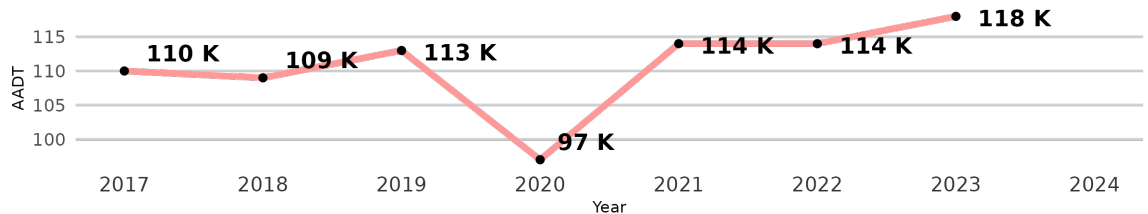
US-54: Daily VMT



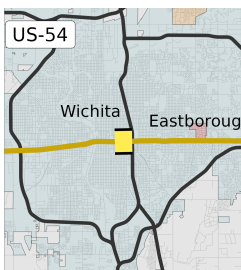
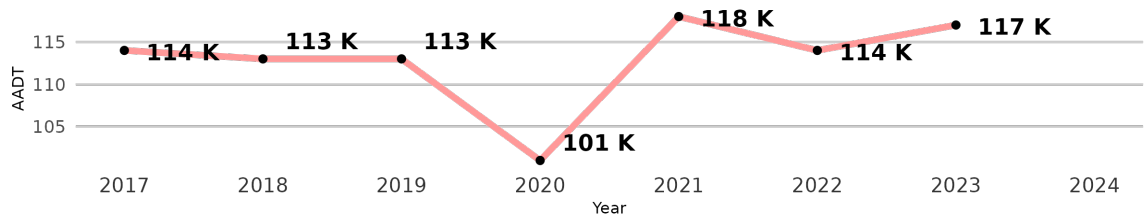
US-54: Top 3 Busiest Roadway Segments by Peak AADT



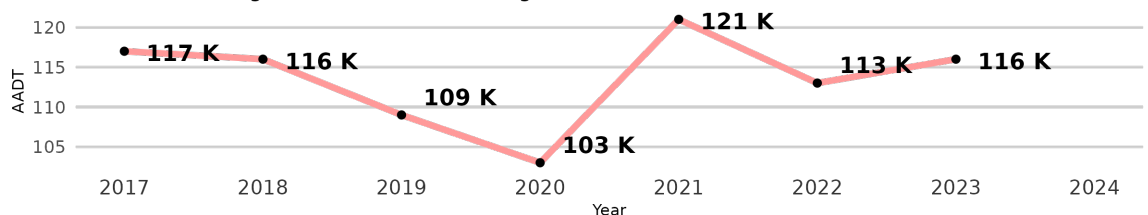
US54: S Main St to S Washington St



US54: S Seneca St to S Main St



US54: S Washington St to I-35 Interchange

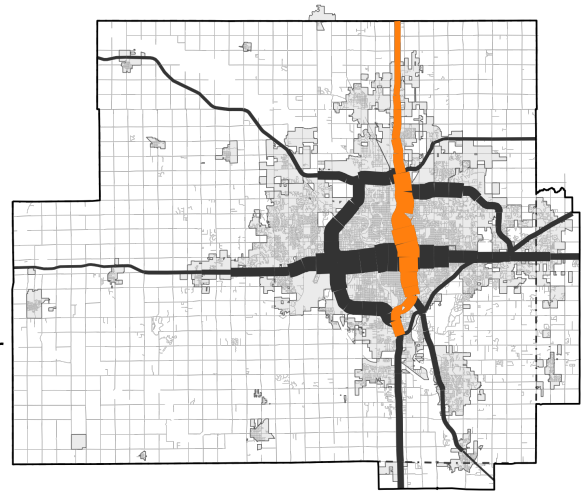


WAMPO Major Corridors

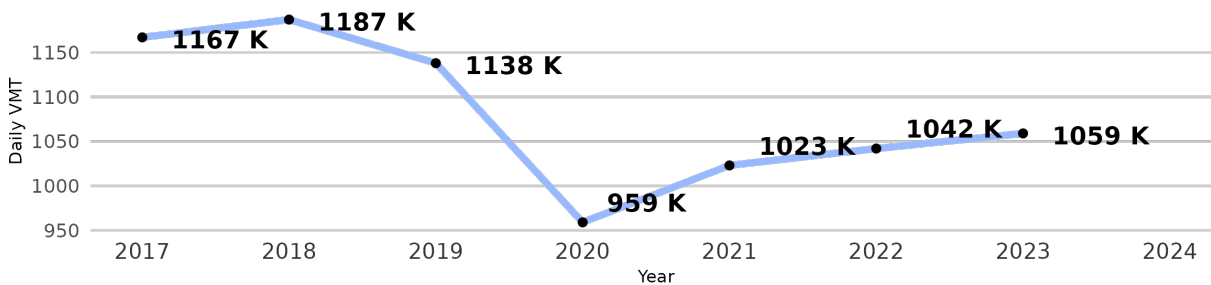
Individual Corridor Report: I-135

Regional Length: 22.3 Miles

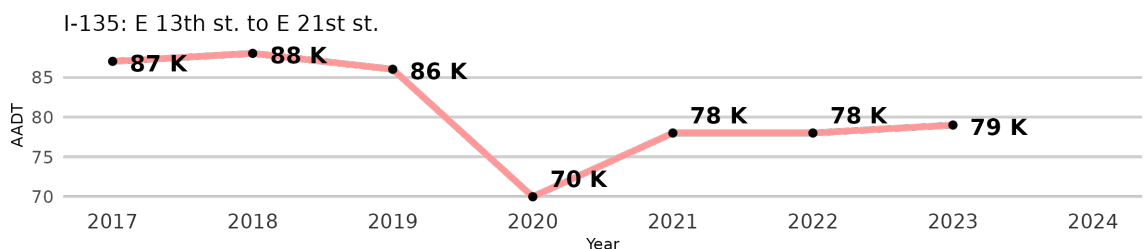
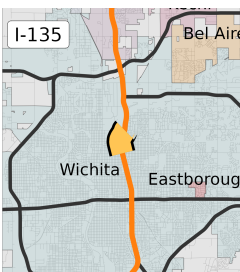
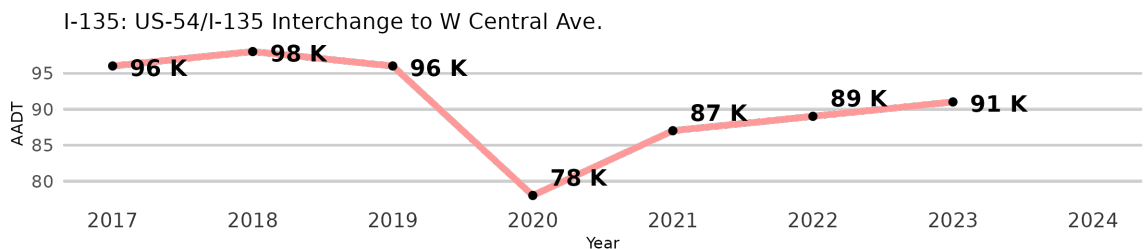
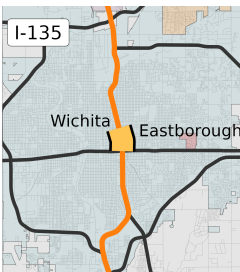
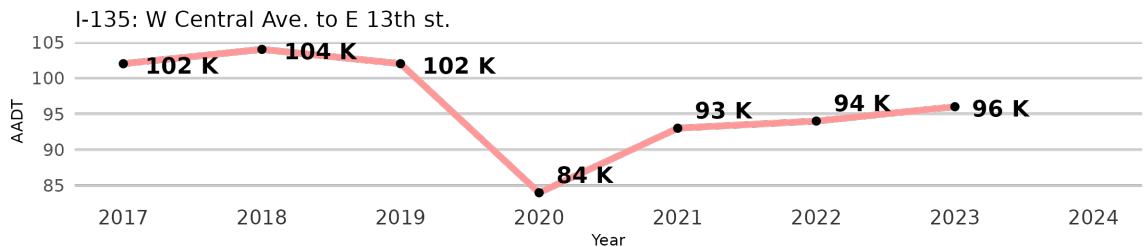
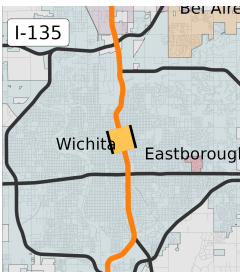
- » 2023 Peak AADT: 95,557 Vehicles
- » 2023 Daily VMT: 1,059,000 Vehicle Miles
- » 7-Year Daily VMT Growth: -26,000 Vehicle Miles/Year



I-135: Daily VMT



I-135: Top 3 Busiest Roadway Segments by Peak AADT

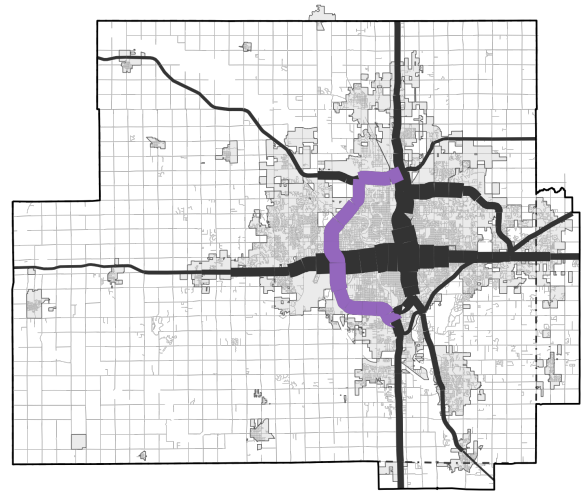


WAMPO Major Corridors

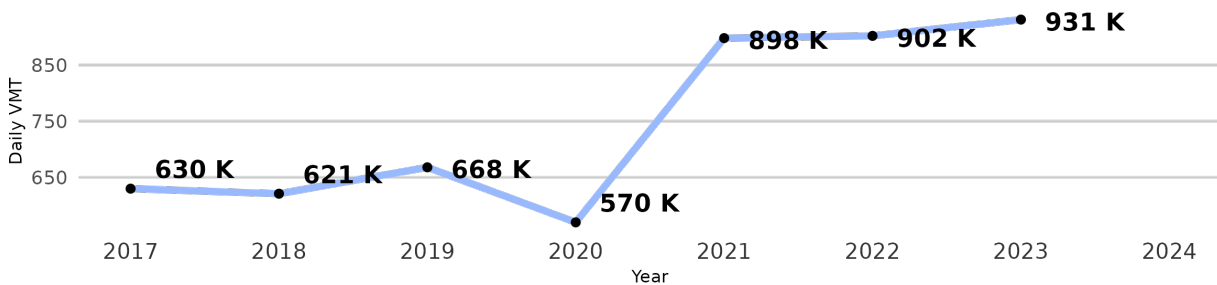
Individual Corridor Report: I-235

Regional Length: 16.4 Miles

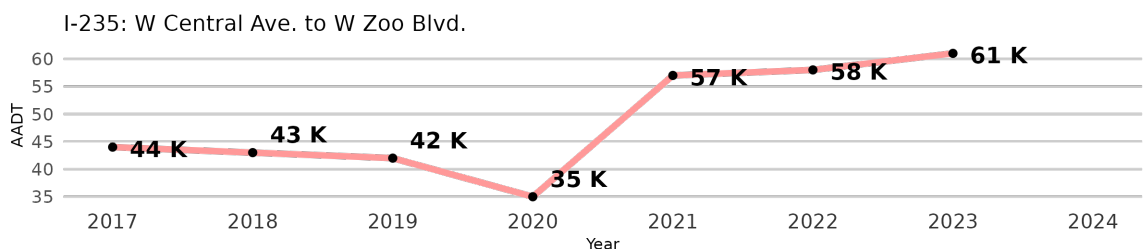
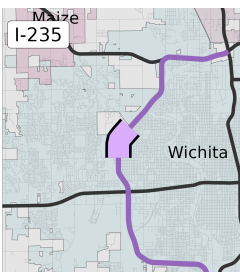
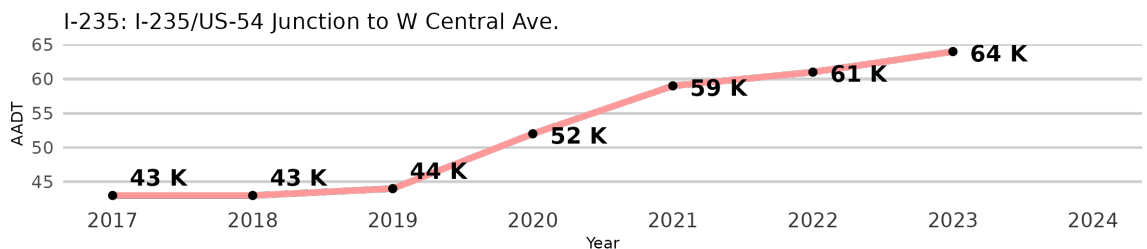
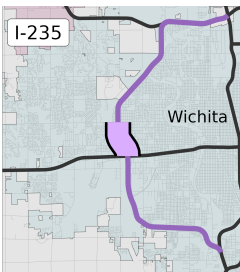
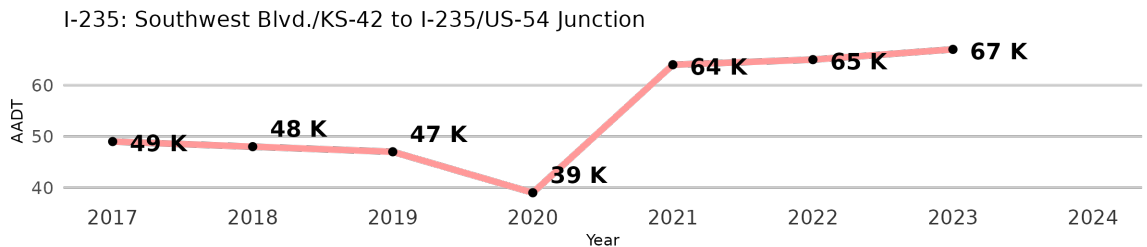
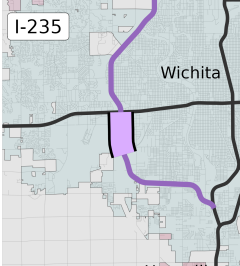
- » 2023 Peak AADT: 66,634 Vehicles
- » 2023 Daily VMT: 931,000 Vehicle Miles
- » 7-Year Daily VMT Growth: 61,000 Vehicle Miles/Year



I-235: Daily VMT



I-235: Top 3 Busiest Roadway Segments by Peak AADT

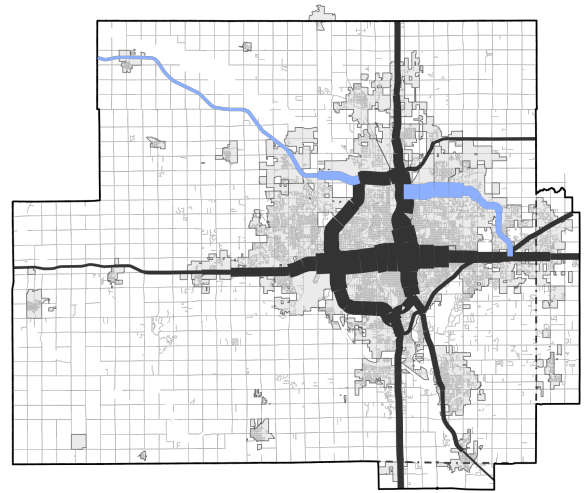


WAMPO Major Corridors

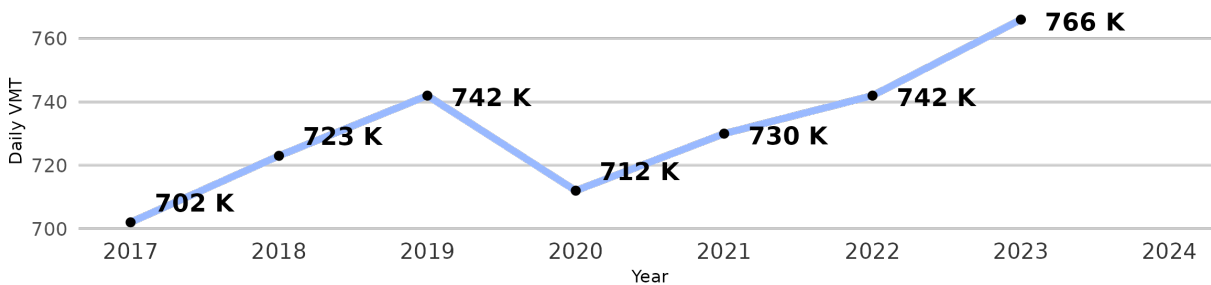
Individual Corridor Report: K-96

Regional Length: 32.1 Miles

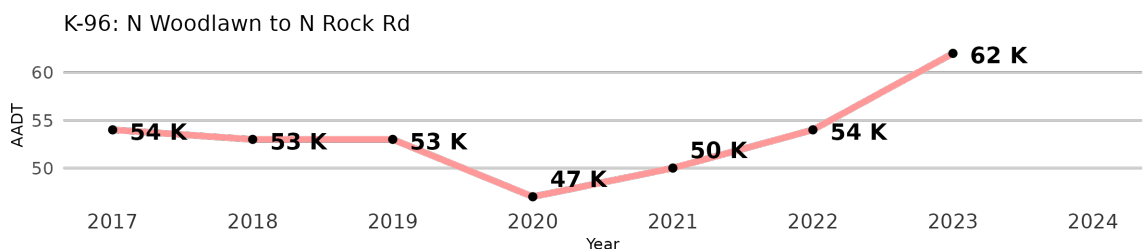
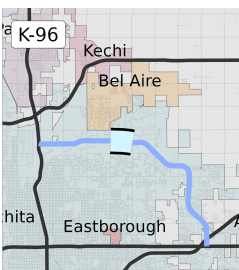
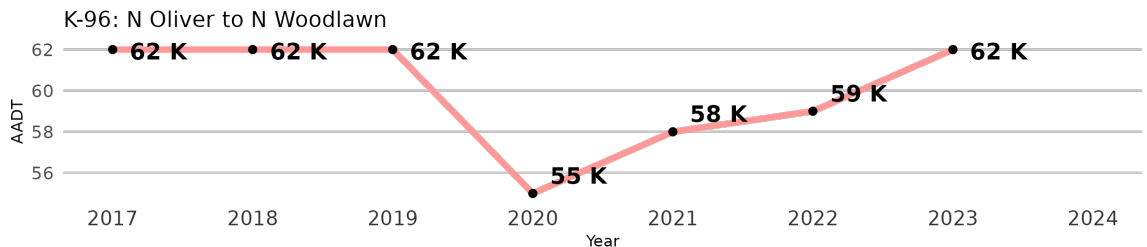
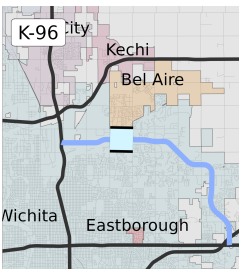
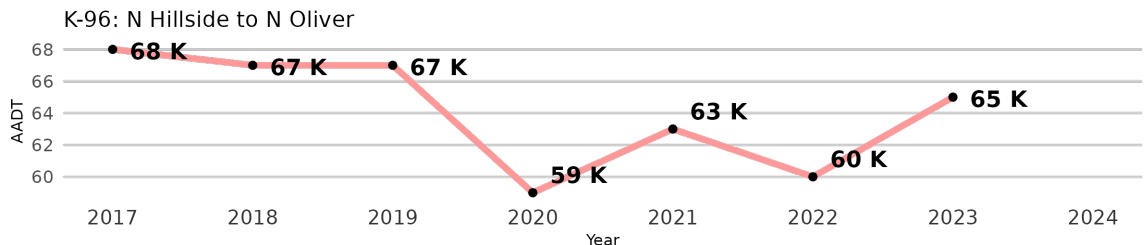
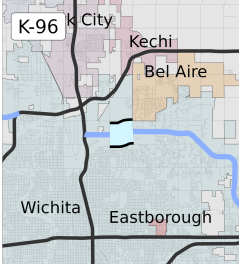
- » 2023 Peak AADT: 65,000 Vehicles
- » 2023 Daily VMT: 766,000 Vehicle Miles
- » 7-Year Daily VMT Growth: 8,000 Vehicle Miles/Year



K-96: Daily VMT



K-96: Top 3 Busiest Roadway Segments by Peak AADT

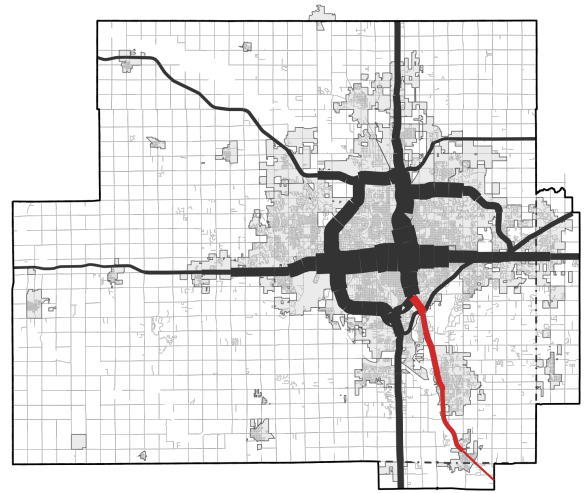


WAMPO Major Corridors

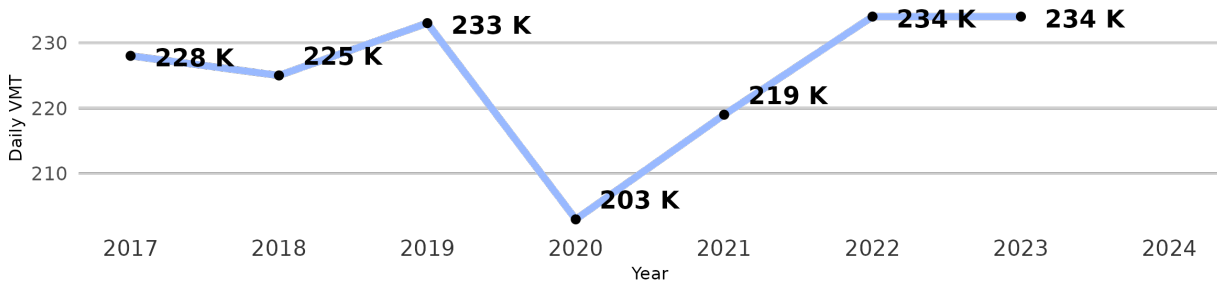
Individual Corridor Report: K-15

Regional Length: 14.2 Miles

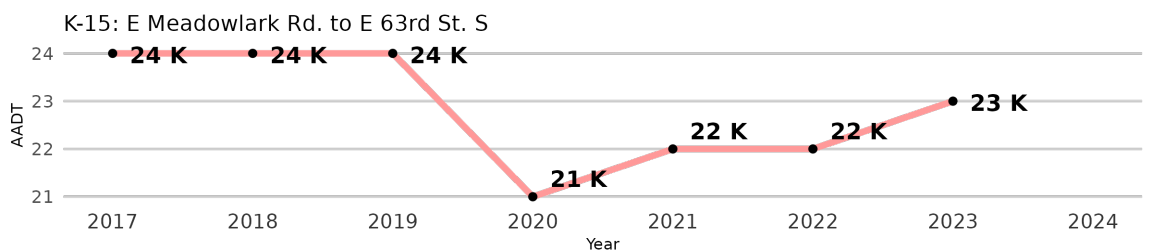
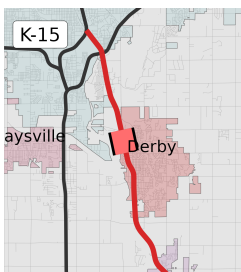
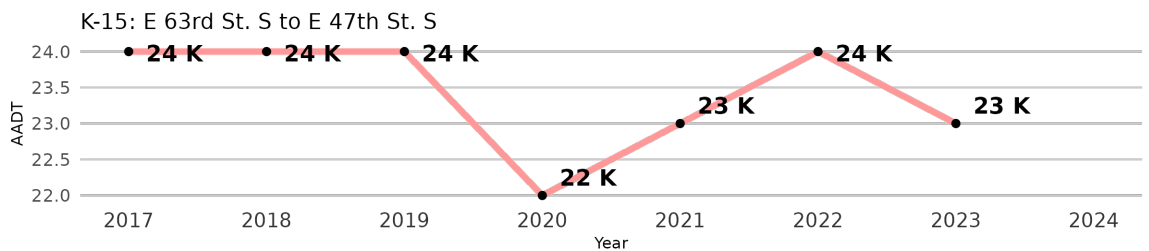
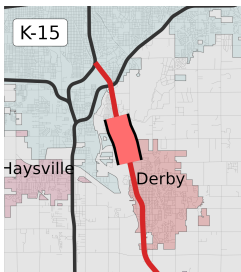
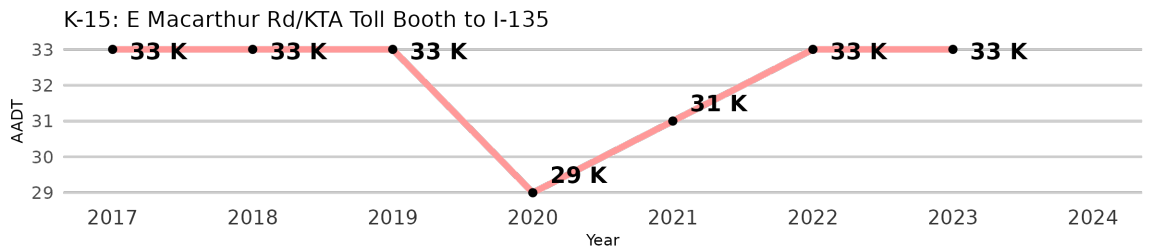
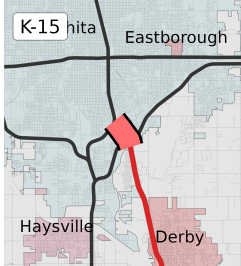
- » 2023 Peak AADT: 32,867 Vehicles
- » 2023 Daily VMT: 234,000 Vehicle Miles
- » 7-Year Daily VMT Growth: 1,000 Vehicle Miles/Year



K-15: Daily VMT



K-15: Top 3 Busiest Roadway Segments by Peak AADT

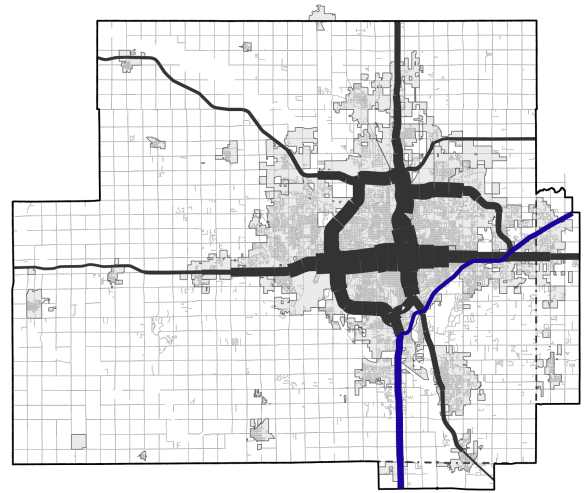


WAMPO Major Corridors

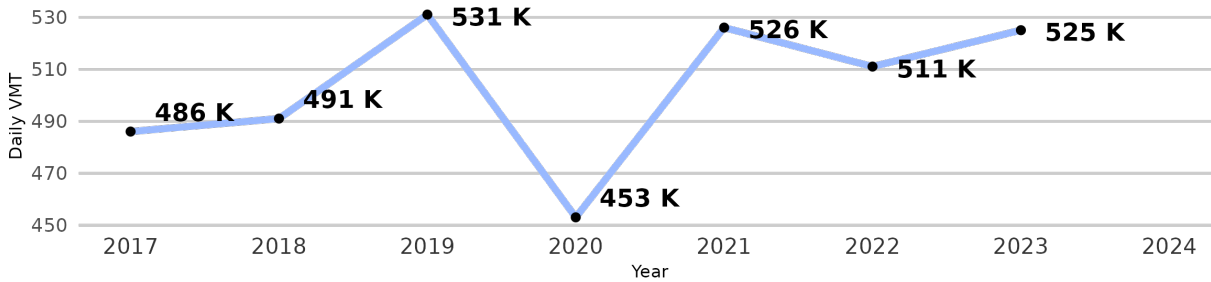
Individual Corridor Report: I-35

Regional Length: 25.9 Miles

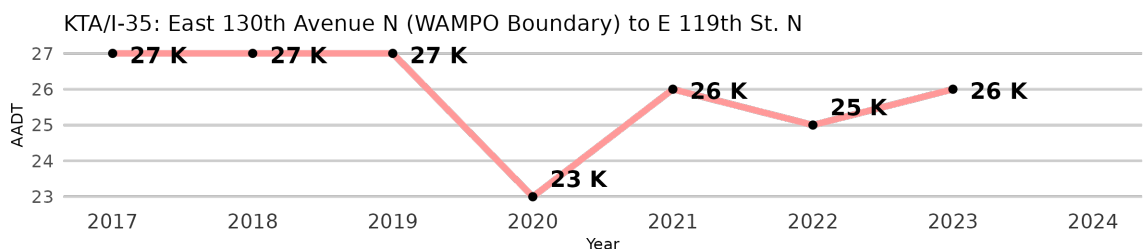
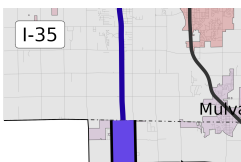
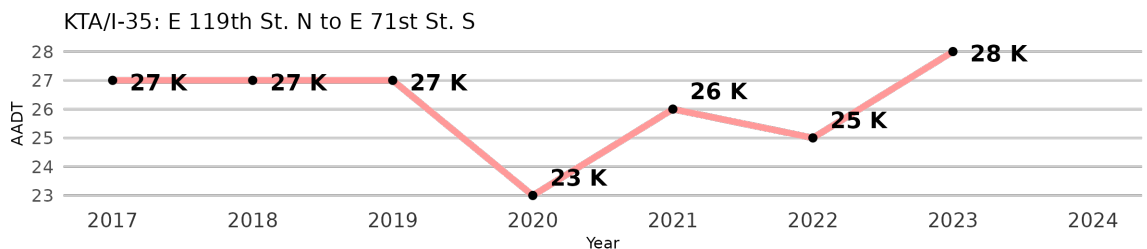
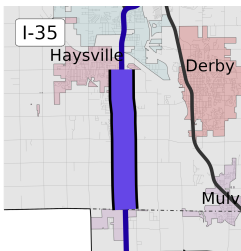
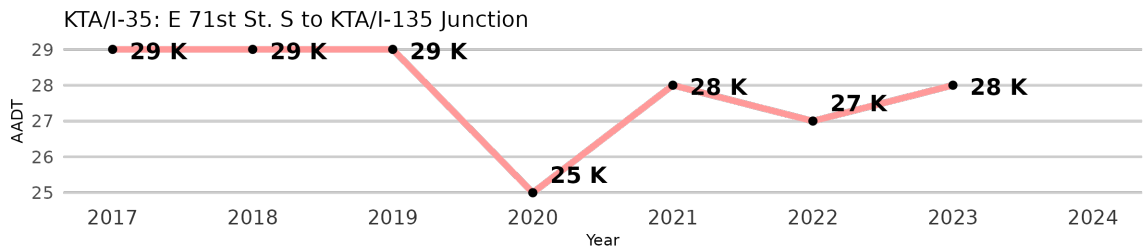
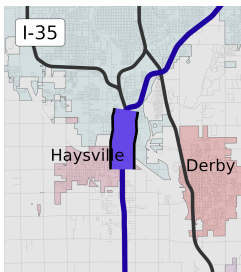
- » 2023 Peak AADT: 27,748 Vehicles
- » 2023 Daily VMT: 525,000 Vehicle Miles
- » 7-Year Daily VMT Growth: 5,000 Vehicle Miles/Year



I-35: Daily VMT



I-35: Top 3 Busiest Roadway Segments by Peak AADT

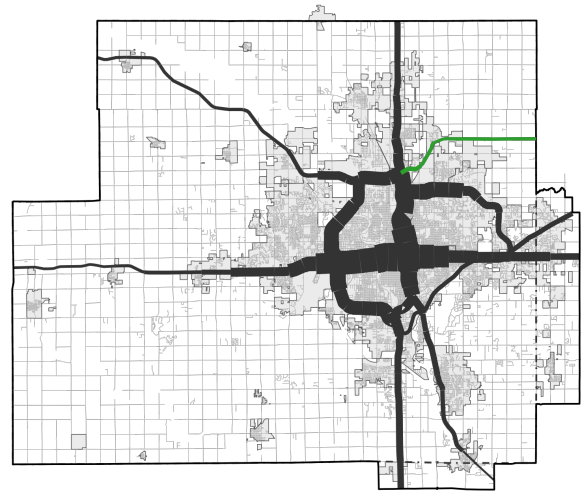


WAMPO Major Corridors

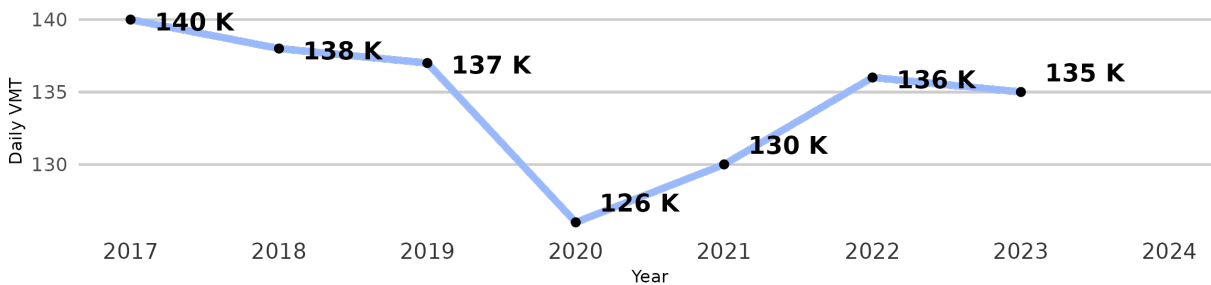
Individual Corridor Report: K-254

Regional Length: 10.4 Miles

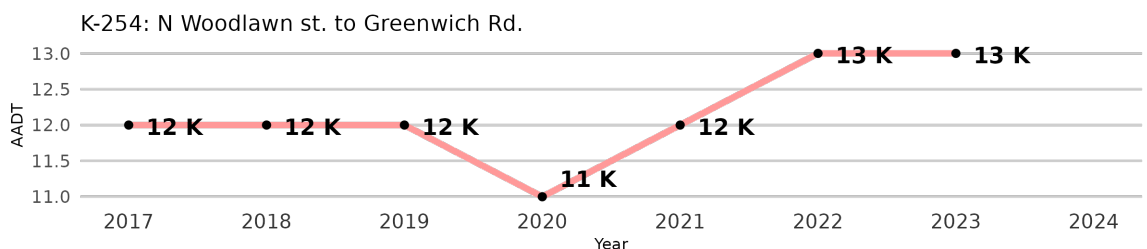
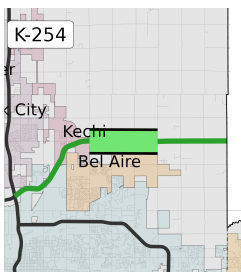
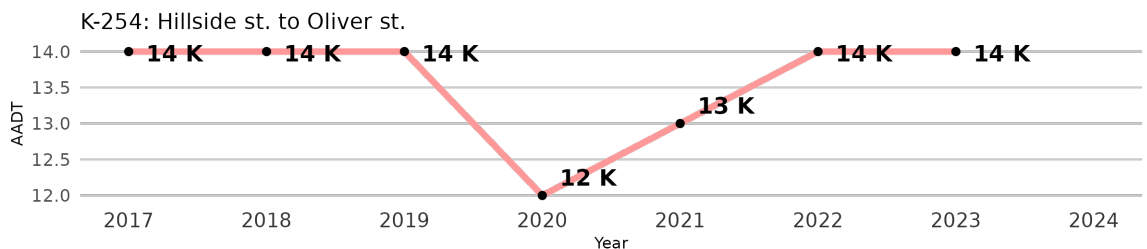
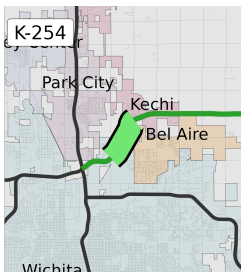
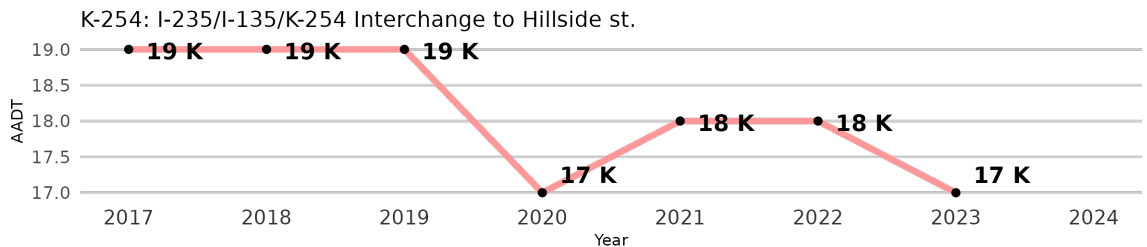
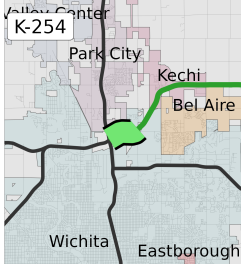
- » 2023 Peak AADT: 17,000 Vehicles
- » 2023 Daily VMT: 135,000 Vehicle Miles
- » 7-Year Daily VMT Growth: -1,000 Vehicle Miles/Year



K-254: Daily VMT



K-254: Top 3 Busiest Roadway Segments by Peak AADT



WAMPO Major State Corridors

2024 Daily VMT and AADT Report: Data Source, Collection, and Methods

Data Source

The development of Annual Average Daily Traffic (AADT) and Vehicle Miles Traveled (VMT) figures requires the collection of individual traffic count information from roadways across the region. The Kansas Department of Transportation (KDOT) performs this kind of data collection for the entire state.

Data Collection

The Kansas Department of Transportation (KDOT) collects short-duration traffic counts across the State with over 60,000 count locations. To handle the over 60,000 count locations, KDOT field employees collect traffic counts on a cycle for approximately 8,000 to 10,000 locations each year. The traffic count cycle is based on the functional classification of the roadways and is as follows:

- » U.S. and State Highways and ramps are collected every two (2) years.
- » Minor Arterials and Major Collectors are collected every three (3) years.
- » Minor Collectors are collected every six (6) years.
- » A sample of local roads is collected every nine (9) years.

In intervening years of traffic count collections, KDOT updates the original counts with growth factors developed from permanent counters on roads in the appropriate category. Locations that are not counted are populated from nearby counts or group averages. Averages of available data for similar or nearby segments are applied to the locations without counts. In addition to traffic counts provided by KDOT, the WICHway traffic operations centers, the City of Wichita, and Sedgwick County conduct traffic counts at specific locations within the WAMPO region.

Methods

KDOT's AADT data are developed internally by the Traffic and Field Operations Units in the Bureau of Transportation Planning. KDOT's AADT traffic count numbers are presented as bi-directional traffic volumes. The daily VMT was calculated by multiplying the length of the roadway segments provided with KDOT's AADT data set with that roadway segment's respective AADT value. The sum of these multiplications was calculated for each corridor and presented as daily VMT.