ACKNOWLEDGEMENTS

The 2018 Annual Report brought to you by the Kansas Department of Transportation (KDOT).
INTRODUCTION

The WICHway Traffic Management Center (TMC) was constructed in 2010 with an initial deployment of 6 cameras and 6 message boards. In less than 10 years, WICHway has grown significantly. WICHway’s purpose is to provide benefits to roadway users and first responders. At the end of 2018, WICHway coverage included approximately 53 miles of highways in the Wichita Metro Area. WICHway includes text and email alerts, roadside cameras, signs and an interactive map to help you travel in the Wichita region!

This is the sixth annual WICHway report. It summarizes key performance measures including incident and congestion metrics from January 1, 2018 to December 31, 2018. It includes information and contributions from the Kansas Department of Transportation (KDOT), Kansas Highway Patrol (KHP), Sedgwick County, City of Wichita, Wichita Area Metropolitan Planning Organization (WAMPO) and Federal Highway Administration (FHWA).
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EXECUTIVE SUMMARY

WICHway is the Kansas Department of Transportation’s (KDOT) Traffic Management Center (TMC) in the Wichita Metro Area. The TMC is co-located with Sedgwick County Emergency Communications allowing direct communication between 911 personnel, first responders, WICHway personnel and the public. This unique approach provides great opportunity to work together to improve congestion and safety in the region. The WICHway website - www.WICHway.org - provides public access to camera views, sign postings and incident information including text and email alerts.

WICHway’s mission is to provide real-time information to:

- help coordinate interagency response to incidents
- improve safety for highway drivers and first responders
- communicate travel time reliability
- reduce congestion delays

As of December 2018, WICHway includes 29 Dynamic Message Signs (DMS), 68 traffic cameras, and 77 traffic sensors. WICHway began tracking traffic incident and congestion metrics in July 2013 and publishes the data monthly and annually.

WICHway implemented a traffic incident management training program in the fall of 2013 and has regularly worked with first responders including Sedgwick County 911, EMS, Sheriff and Fire, Wichita Police and Fire, Kansas Highway Patrol and Motorist Assist at local incident management meetings. Incident management is a key component to the mission of WICHway. Efficient incident management improves safety, capacity and reliability of the roadway by reducing the risk of secondary collisions and delays to travelers.

Incident clearance time remains a primary measure of effectiveness for WICHway. Since 2013, the average incident clearance time has decreased by almost two (2) hours. Safely reducing the exposure of travelers and responders by shortening the total duration of the incident is essential to the safety of the public and first responders.
Reducing secondary crashes is important because it reduces the risk of death or injury to drivers and emergency responders. In 2018, a total of 49 secondary crashes were recorded comprising 6.5% of total logged crashes. 63% of the total secondary crashes occur in the first 30 minutes of the primary incident. Good Traffic Incident Management (TIM) is a key element in reducing the occurrence of secondary crashes.

Since 2013, 899 first responders in the Wichita area have completed the 4-hour Traffic Incident Management (TIM) training course developed by the Federal Highway Administration (FHWA) as part of the Strategic Highway Research Program (SHRP2). The primary reason for the decrease in average clearance time is TIM training and the voluntary adoption of TIM principles by first responders.

In 2014, WICHway began displaying travel times on DMS offering drivers the ability to avoid traffic congestion. On average, 20-30% vehicle diversion is realized during incidents when appropriate information is displayed on DMS and alerts posted on WICHway.

In 2015, a Benefit-Cost (B-C) analysis was conducted to estimate the monetary value of the return obtained from WICHway’s operations. The analysis indicates that for every $1 spent on the WICHway operations an approximate benefit of $12 is returned, primarily due to user delay costs.

Several ITS improvement projects in Wichita will upgrade the existing WICHway coverage. It is anticipated that by the end of 2019, WICHway will grow by 10 miles. Additional coverage is primarily along K-15. The K-15 project was a pilot inter-agency expansion project involving the City of Wichita, KDOT, Sedgwick County, and the City of Derby. WICHway includes text and email alert features allowing subscribers to be notified of major traffic incidents.

We trust that you will find the report valuable and encourage you to read the complete 2018 WICHway Annual report on our website at www.WICHway.org
BENEFIT-COST (B-C) RATIO

A Benefit-Cost (B-C) analysis is a good way to assess costs and benefits from a program and its associated operations strategies. Life-cycle costs for the selected ITS strategies are calculated and broken down as infrastructure and incremental costs. Infrastructure costs include basic equipment needed for the functioning of the system and may include computer hardware/software, video monitors, and labor to operate the system. Incremental costs include the costs necessary for deploying one additional device and integrating it into the existing system. These costs are annualized to provide an accurate comparison based on the expected useful life of the equipment, capital/replacement costs, and annual operation and maintenance costs. The benefits estimated are primarily the savings obtained from reduction in travel time delays and improvement in safety by overall reduction in the number of crashes and crash clearance times. The analysis was completed using the “Tool for Operations Benefit/Cost” developed by the Federal Highway Administration (FHWA) Office of Operations. 5

A comparison of pre-deployment data from a 2009 ITS pilot study in Wichita and 2015 deployment data yielded a total of $14,351,501 in annual benefits, $1,178,766 in annual costs and a subsequent B/C ratio of 12.18/1 (approximately 12:1) for the existing ITS operations in Wichita.
TRAFFIC INCIDENT MANAGEMENT TRAINING

Traffic Incident Management (TIM) is a comprehensive initiative focused on improving the safety, capacity and reliability of a roadway. TIM consists of coordinated efforts to restore roadway capacity as safely and quickly as possible. The course develops a common set of practices for all emergency responders working incidents.

<table>
<thead>
<tr>
<th>Responders</th>
<th>Yearly Total Trained</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2013</td>
</tr>
<tr>
<td>Law Enforcement</td>
<td>49</td>
</tr>
<tr>
<td>Fire/Rescue</td>
<td>379</td>
</tr>
<tr>
<td>Towing and Recovery</td>
<td>0</td>
</tr>
<tr>
<td>EMS</td>
<td>3</td>
</tr>
<tr>
<td>DOT/ Transportation</td>
<td>24</td>
</tr>
<tr>
<td>Other</td>
<td>1</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>456</td>
</tr>
</tbody>
</table>

Since inception in 2013, 899 traffic incident responders from multiple disciplines have completed the 4-hour TIM training course in the Wichita region.

Saves Lives
- Faster incident response and clearance times result in fewer secondary crashes
- Training results in less exposure of responders to traffic

Saves Money
- Fewer freight and traveler delays
- Fewer secondary crashes saves on insurance claims
- Less exposure lead to cost savings for incident personnel injuries

Saves Time
- Smarter response techniques cut congestion clearance time and decrease delays
**MOTORIST ASSISTANCE PROGRAM**

The Motorist Assistance Program (MAP) is a partnership between the Kansas Department of Transportation and the Kansas Highway Patrol. Wichita’s Motorist Assistance Program operates Monday through Friday, 5 am to Midnight, and 7 am to 11 pm on weekends.

“Theresa was so helpful and calming and I was just amazed at how quickly she took care of things. I had two little girls in the car who were worried about what was happening and she just took such good care of us. I don't have enough good things to say. Thanks so much!”

*Ruth Spencer*

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**MISSION**

*To improve traffic safety through timely, courteous, and cost-effective assistance to motorists whose vehicles are stranded or disabled along the roadway*

### Motorist Assist Summary

<table>
<thead>
<tr>
<th>Activity</th>
<th>Annual Totals</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2014</td>
</tr>
<tr>
<td>Public Contacts*</td>
<td>8,951</td>
</tr>
<tr>
<td>Service Rendered</td>
<td>6,035</td>
</tr>
<tr>
<td>Unattended Vehicles**</td>
<td>1,804</td>
</tr>
</tbody>
</table>

### Time

| Total Days Worked         | 1,208| 1,299| 1,369| 1,423| 1,318|
| Total Hours Worked        | 10,144| 10,474| 11,045| 11,298| 10,600|
| Total Miles Driven        | 249,073| 243,494| 242,926| 243,659| 219,488|

*Contact with at least one person. Multiple persons in an encounter are not counted individually

**Red tag placed on the vehicle found abandoned between the fences along a highway. Recovered stolen vehicles are excluded.**
INCIDENT SUMMARY

What is an incident? For our purposes, it’s an event occurring on the highway that affects the safety or capacity of the highway. This may be an accident, stalled vehicle, grass or vehicle fire, pedestrians on the roadway, or roadway debris. Quick detection and response is essential to minimizing the incident duration, preventing secondary accidents and lessening the effects of the initial incident. Detecting incidents such as Injury/Fatality (INJ/FAT) and Property Damage Only (PDO) accidents, and organizing appropriate responses is a primary focus of the WICHway system.

Total Incidents by Highway

2018 Incident Breakdown by Type

2018 Incident Breakdown by Type

**Incident** – an event occurring on the highway that affects the safety or capacity of the highway.
Over 51% of incidents occur during peak driving times, 7-9 am and 4-6 pm.
In 2018, Camera coverage increased by 10 miles, increasing our visibility of I-235 and south I-135.
In 2018, **November** had the highest number of both Injury/Fatality Accidents and Property Damage Only (PDO) Accidents. Accident Rates are significantly **lower** during the summer months (June-August) when school is not in session.
Incident clearance time is an important factor to consider with traffic management. The longer an incident remains on the roadway, the more it affects traffic (including congestion and secondary collisions) and safety of responders. Safely and quickly reducing traffic exposure to incidents by decreasing clearance time is an effective way to increase travel efficiency.

The average clearance time by month shown below excludes stalled vehicles, tow and construction incidents since these events often last multiple days and would be difficult to show in relationship to the other incidents.
The average incident clearance time for Wichita in 2018 was 45 minutes. The incident clearance time has remained relatively static since 2014 even with large construction projects on multiple highways throughout the Wichita region and an increase in WICHway’s device coverage. Wichita’s average clearance time excludes stalled vehicles, tow and construction incidents. Kansas law (K.S.A. 8-1102) allows motorists 48 hours to remove an abandoned vehicle before it will be towed, unless it creates a traffic hazard.

KC Scout’s 36 minute clearance time is the average time it takes to clear lanes for all lane-blocking incidents. Incident clearance time as reported by WICHway includes the time all emergency personnel, equipment and vehicles have left the scene.

Houston TranStar’s 32.7 minute clearance time did not specifically mention which incidents are included and whether or not the time was for complete removal from the roadway or only for lane-blocking incidents.

**Average Incident clearance time for Wichita in 2018 was 45 minutes, DECREASED almost 2 hours since 2013**

**2013 Average Incident Clearance Time was 2 hours 30 minutes**
CRASH SUMMARY

Unlike incidents which include all events occurring on the highway, crashes involve the collision of a vehicle with another vehicle, animal, pedestrian, debris or stationary object. In 2018, there were a total of 755 crashes logged in WICHway. Reducing the time it takes to safely remove a crash from the roadway is an important goal for the Wichita area. Identifying high incident areas is valuable when determining the need for safety improvements. These heat maps illustrate distribution of logged crashes in 2018.
Crash Clearance Times

Crash clearance time is an important factor to consider in traffic management and an improvement goal for the Wichita area. This graph illustrates the amount of time it takes to clear a percentage of all crashes. In 2018, 70% of all recorded crashes were cleared in less than 60 minutes, an increase from 69% in 2017. This graph includes both the injury and non-injury crash clearance times as logged by the TMC operators.

Cumulative Distribution of Crash Clearance Time

- 96% of Crashes Cleared <120 min
- 90% of Crashes Cleared <90 min
- 70% of Crashes Cleared <60 min
- 51% of Crashes Cleared <45 min

In 2018, 70% of crashes were cleared in less than 60 minutes, up from 69% in 2017.
Total Crashes by Highway

<table>
<thead>
<tr>
<th>Highway</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>US-54</td>
<td>81</td>
<td>76</td>
<td>72</td>
</tr>
<tr>
<td>ACCIDENT-PDO</td>
<td>219</td>
<td>220</td>
<td>273</td>
</tr>
<tr>
<td>ACCIDENT-INJ/FAT</td>
<td>59</td>
<td>63</td>
<td>63</td>
</tr>
</tbody>
</table>

Crash Clearance Time

<table>
<thead>
<tr>
<th>Highway</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>US-54</td>
<td>0.47</td>
<td>0.47</td>
<td>0.46</td>
</tr>
<tr>
<td>ACCIDENT-PDO</td>
<td>0:58</td>
<td>1:05</td>
<td>1:17</td>
</tr>
<tr>
<td>ACCIDENT-INJ/FAT</td>
<td>0.44</td>
<td>0.45</td>
<td>1.08</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highway</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>K-96</td>
<td>22</td>
<td>24</td>
<td>22</td>
</tr>
<tr>
<td>ACCIDENT-PDO</td>
<td>72</td>
<td>76</td>
<td>98</td>
</tr>
<tr>
<td>ACCIDENT-INJ/FAT</td>
<td>23</td>
<td>72</td>
<td>86</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highway</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-135</td>
<td>58</td>
<td>18</td>
<td>23</td>
</tr>
<tr>
<td>ACCIDENT-PDO</td>
<td>198</td>
<td>181</td>
<td>132</td>
</tr>
<tr>
<td>ACCIDENT-INJ/FAT</td>
<td>63</td>
<td>62</td>
<td>48</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highway</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-235</td>
<td>23</td>
<td>23</td>
<td>72</td>
</tr>
<tr>
<td>ACCIDENT-PDO</td>
<td>0.42</td>
<td>0.42</td>
<td>0.42</td>
</tr>
<tr>
<td>ACCIDENT-INJ/FAT</td>
<td>0.58</td>
<td>1.13</td>
<td>0.58</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Highway</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
</tr>
</thead>
<tbody>
<tr>
<td>I-135</td>
<td>62</td>
<td>48</td>
<td>48</td>
</tr>
<tr>
<td>ACCIDENT-PDO</td>
<td>0.37</td>
<td>0.40</td>
<td>0.52</td>
</tr>
<tr>
<td>ACCIDENT-INJ/FAT</td>
<td>0.38</td>
<td>0.55</td>
<td>1.04</td>
</tr>
</tbody>
</table>
Severity Levels

Minor – duration under 30 min.
Intermediate – duration of 30 min. to 2 hrs.
Major – duration greater than 2 hrs.

<table>
<thead>
<tr>
<th>Crash Severity</th>
<th>Total Crashes</th>
<th>Avg. Duration (hh:mm)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2016</td>
<td>2017</td>
</tr>
<tr>
<td>Minor</td>
<td>230</td>
<td>275</td>
</tr>
<tr>
<td>Intermediate</td>
<td>430</td>
<td>468</td>
</tr>
<tr>
<td>Major</td>
<td>13</td>
<td>29</td>
</tr>
<tr>
<td>Grand Total</td>
<td>673</td>
<td>772</td>
</tr>
</tbody>
</table>

2018 Total Crashes by Severity:
- Minor: 60%
- Intermediate: 36%
- Major: 4%

Injury Crashes by Severity:
- Intermediate: 81%
- Minor: 12%
- Major: 7%

Non-Injury Crashes by Severity:
- Intermediate: 55%
- Minor: 42%
- Major: 3%
Secondary Crashes

A Secondary Crash is a crash that occurs within the incident scene or queue, including the opposite direction, of a primary incident.

In 2018, a total of 49 secondary crashes were recorded and comprised 6.5% of logged crashes. This compares to 51 secondary crashes (6.6%) in 2017.

On average, 63% of the secondary crashes occur within 30 minutes after the start of a primary incident. Of the total secondary crashes, 21% were injury crashes.

A monthly breakdown of the secondary crashes indicates that October had the highest number of secondary crashes.
Reducing secondary crashes is an important part of road safety for the Wichita area. In 2016, WICHway began actively recording secondary crashes. By reducing secondary crashes, the exposure risk to first responders is reduced, safety for all road users increased, and additional congestion is prevented. In 2018, **63% of the total secondary crashes occurred within the first 30 minutes of a primary incident!**
Post DMS by Time of Day

DMS Utilization

WIChway utilizes 29 permanent DMS. In 2018, a total of 4,871 messages were posted.

November had the highest number of posted messages

Messages shown exclude travel times and test messages. Messages shown include modifications to previous messages.

*Closure messages include roadway closures for roadwork, incidents, and weather postings.

**Other Incidents include but are not limited to stalled vehicles, fire, and medical incidents.
WEBSITE – WICHWAY.ORG

Wichita’s internet gateway to the Traffic Management Center, WICHway.org, provides users, the public, media and first responders with real-time information including active incidents, camera views, posted message boards, live travel speeds and road conditions. Users can also find monthly and annual reports, contact information and links to additional websites. WICHway includes text and email alerts allowing subscribers to be notified of major traffic incidents such as accidents, closures, roadwork, etc. in the Wichita Metro Area.

“I would like to give you kudos for the WICHway site on the web. I think it is one of the best apps ever and I am telling lots of people about it. It will come in very handy with all that will be going on this year! Thank you for providing the information that you do.”

Becky Fields, Wichita

WICHway.org Desktop Webpage

WICHway.org Mobile View

WICHway.org is desktop and mobile friendly!
CONGESTION SUMMARY

Traffic congestion affects our daily lives as we travel along the roadways. Wichita’s Intelligent Transportation System (ITS) utilizes 77 traffic sensors to detect vehicle speeds, volume, lane occupancy and direction in 15-minute intervals, all of which is stored on local TMC data servers.

When a peak period is referenced, generally, they correspond to 7:15 to 8:15 am and 4:30 to 5:30 pm. The peak periods in this report were determined using data collected over the 12-month period.

The congestion index report informs commuters of travel time reliability on Wichita highways. The congestion indices used in this report are:

- Travel Time Index (TTI)
- Planning Time Index (PTI)
- Buffer Time Index (BTI)

All three travel time reliability indices are calculated measures of effectiveness used by the Federal Highway Administration (FHWA). 4

<table>
<thead>
<tr>
<th>WICHway Year</th>
<th>TTI AM</th>
<th>TTI PM</th>
<th>PTI AM</th>
<th>PTI PM</th>
<th>BTI AM</th>
<th>BTI PM</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>1.00</td>
<td>1.02</td>
<td>1.15</td>
<td>1.22</td>
<td>15%</td>
<td>19%</td>
</tr>
<tr>
<td>2014</td>
<td>1.00</td>
<td>1.01</td>
<td>1.18</td>
<td>1.25</td>
<td>18%</td>
<td>22%</td>
</tr>
<tr>
<td>2015</td>
<td>1.00</td>
<td>1.02</td>
<td>1.24</td>
<td>1.30</td>
<td>22%</td>
<td>25%</td>
</tr>
<tr>
<td>2016</td>
<td>1.00</td>
<td>1.02</td>
<td>1.19</td>
<td>1.34</td>
<td>19%</td>
<td>30%</td>
</tr>
<tr>
<td>2017</td>
<td>1.00</td>
<td>1.03</td>
<td>1.18</td>
<td>1.34</td>
<td>17%</td>
<td>28%</td>
</tr>
<tr>
<td>2018</td>
<td>1.00</td>
<td>1.01</td>
<td>1.21</td>
<td>1.22</td>
<td>20%</td>
<td>20%</td>
</tr>
</tbody>
</table>
Traffic Speeds & Average Annual Daily Traffic (AADT) by Route

The Average Annual Daily traffic (AADT) is a measure of the average annual number of vehicles that cross a point (in both directions) on a roadway segment during a day. Based on typical peaking characteristics, the capacity of a freeway lane is generally 20,000 vehicles per lane per day.

**I-135 Avg. 24-Hour Speed & AADT**

- **Average 24-Hour Speed**
- **AADT**

**I-235 Avg. 24-Hour Speed & AADT**

- **Average 24-Hour Speed**
- **AADT**

**I-135 or the “Canal route” connects north & south Wichita and links with three other major freeway and highway routes**

**I-235 is a north-south bypass on the west side of Wichita connecting I-135 at north and south of the Wichita metro area**

---

21
**K-96 Avg. 24-Hour Speed & AADT**

- **Average 24-Hour Speed**
- **AADT**

**K-96 is a bypass route connecting East US-54 (Kellogg) with North I-135 then continuing west to Hutchinson, Kansas**

**US-54 Avg. 24-Hour Speed & AADT**

- **Average 24-Hour Speed**
- **AADT**

**US-54 runs east-west through the heart of Wichita and has the highest Average Annual Daily Traffic (AADT) in Wichita**

*US-54/Eastern has lower speeds due to adjacent construction.*
I-135 Avg. AM Peak Hour Speeds

- NB Average AM Peak Hour Speed
- SB Average AM Peak Hour Speed

I-135 Avg. PM Peak Hour Speeds

- NB Average PM Peak Hour Speed
- SB Average PM Peak Hour Speed

Posted Speed Limit is 60 mph (70 mph at 61st St. N)

Weekday Peak Traffic Hours:
7:15 - 8:15 am
4:30 - 5:30 pm
**K-96 Avg. AM Peak Hour Speeds**

- EB Average AM Peak Hour Speed
- WB Average AM Peak Hour Speed

Weekday Peak Traffic Hours:
- 7:15 - 8:15 am
- 4:30 - 5:30 pm

**K-96 Avg. PM Peak Hour Speeds**

- EB Average PM Peak Hour Speed
- WB Average PM Peak Hour Speed

Posted Speed Limit is 65 mph
US-54 Avg. AM Peak Hour Speeds

[Graph showing AM peak hour speeds with green and blue lines.
Speed range from 40 to 70 MPH with posted speed limit of 60 MPH.]

US-54 Avg. PM Peak Hour Speeds

[Graph showing PM peak hour speeds with green and blue lines.
Speed range from 40 to 70 MPH with posted speed limit of 60 MPH.]

*US-54 at Eastern has adjacent construction

Weekday Peak Traffic Hours:
7:15 - 8:15 am
4:30 - 5:30 pm
*AM peak periods remained consistent but PM peak periods varied due to several construction projects; **N. Broadway East is for SB direction only

*Weekday Peak Traffic Hours:
7:15 - 8:15 am
4:30 - 5:30 pm
If it typically takes a driver 1 minute to drive between two points with no congestion, a TTI of 1.5 means on average, it will take the same driver 1 minute 30 seconds (1 minute x 1.5 = 1.5 minutes) to travel between the same two points during the peak periods.
Planning Time Index (PTI) AM Peak Hour

If travel during times of light traffic with little congestion takes 2 minutes, a PTI of 1.5 means the same trip will take a total of 3 minutes (1.5 minutes x 2 = 3 minutes), or 1.5 times longer.

2017 vs 2018 PTI Comparison

Morning Peak
2017: 1.18 min
2018: 1.21 min
+2.5%

Evening Peak
2017: 1.34 min
2018: 1.22 min
-9.0%

Planning Time Index Legend

- 1.00 – 1.30
- 1.31 – 1.60
- 1.61+

Planning Time Index (PTI) PM Peak Hour
If travel during times of light traffic with little congestion takes 5 minutes, a BTI of 40% means the traveler should plan an additional 2 minutes (5 minutes x 40% = 2 minutes) to make their destination on time.

**Buffer Time Index Legend**
- Green: 0% - 20%
- Yellow: 21% - 40%
- Red: 41%+

**2017 vs 2018 BTI Comparison**

**Morning Peak**
- 2017: 17%
- 2018: 20%
- Increase: +3.0%

**Evening Peak**
- 2017: 28%
- 2018: 20%
- Decrease: -8.0%
WICHWAY TOOLS & EQUIPMENT

WICHway utilizes an array of tools to monitor traffic, notify drivers of travel problems, assist responders at incidents and improve travel reliability in Wichita. Many of these tools are also available through the website, www.WICHway.org.

**WICHway Website**
Alerts and real-time information about traffic conditions and incidents available on desktop, tablets, and mobile devices.

**Traffic Management Center**
Control center for WICHway, Wichita’s Intelligent Transportation System.

**Closed-Circuit Cameras**
View live traffic and monitor incidents.

**Traffic Detectors**
Record live traffic data including speed, volume, lane occupancy and direction.

**Live Traffic Monitoring**
Operators view live traffic conditions and update devices with current information.

**Dynamic Message Sign (DMS)**
Alerts road users of current traffic conditions.
APPENDICES

Acronyms

ADT       Average Daily Traffic
AADT      Average Annual Daily Traffic
BTI       Buffer Time Index
CCTV      Closed-Circuit Television
DMS       Dynamic Message Sign
FHWA      Federal Highway Administration
ITS       Intelligent Transportation System
KDOT      Kansas Department of Transportation
KHP       Kansas Highway Patrol
MAP       Motorist Assistance Program
MAV       Motorist Assist Vehicle
MIST      Management Information System for Transportation
MUTCD     Manual on Uniform Traffic Control Devices
PDO       Property Damage Only
PTI       Planning Time Index
SHRP2     Strategic Highway Research Program
SWZ       Smart Work Zone
TIM       Traffic Incident Management
TMC       Traffic Management Center
TTI       Travel Time Index
VMT       Vehicle Miles Traveled

Sources

   https://ops.fhwa.dot.gov/plan4ops/topsbctool/