Traffic Counts

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South Dakota LTAP

Reaching New Heights

34th Annual North Central Local Roads Conference
Rapid City, SD - October 16-17, 2019
Why do I need traffic counts

• #1 - A tool to make informed decisions
  - Surface Selection Tool
  - Maintenance Frequency

• “I get about 80 trucks a day on this road going 70mph plus”
Why do I need traffic counts

- **Subjective** refers to personal perspectives, feelings, or opinions entering the decision making process.
- **Objective** refers to the elimination of subjective perspectives and a process that is purely based on hard facts.
• **ADT** - Average Daily Traffic
  - Average # of vehicle (short duration)
  - ADT can be converted to AADT

• **AADT** - Annual Average Daily Traffic
  - Represents data for the entire year (more accurate)
  - AADT = ADT x Adjustment Factor
85th Percentile Speed

- 85% of vehicle traveling in this speed. Used as a guide in setting or adjusting the posted speed.
- small, portable and easy to deploy package
Features of a Radar Traffic Counter

• 2+ Weeks Run Time On Batteries
• Simple point and go installation
• Multilane Bidirectional Counting
• Approx: $3000 turn-key setup
Features of a Radar Traffic Counter

- Tube counters require work in the roadway to place and recover the equipment
- Tubes degrade if broken may be difficult to repair immediately
- Around 50,000 miles of gravel road
Loan Program

Loan Program - RoadVista 922 Retroreflectometer

SD LTAP recently acquired a retro-reflectometer and a radar traffic counter that will be available to any local public agency to loan. If you are interested in using either of these instruments, please contact Andrew.

The new traffic counter will be a fully integrated radar, so that means no more tubes! This will be very beneficial on gravel roads since there will be no tubes that get destroyed or the hassle of moving them when you have to blade. These radars can collect vehicle counts, speeds, and classification of vehicle. Not only are they more efficient but also safer!
Summary of gravel, AST and HMA surface life cycle costs related to ADT – *SDDOT Surface Selection Criteria Study*

- **Gravel** – cost effective to 150 ADT
- **AST (Blotter)** – cost effective to 650 ADT
- **HMA Pavement** – cost effective above 650 ADT
For Project: Brookings County
Project Notes: Merged
Location/Name: 05/07/2019 15:02
Report Generated: 01:00:00 through 05/06/2019 23:59:59
Speed Intervals 04/25/2019
Time Intervals 57 MPH
Traffic Report From 7176
85th Percentile Speed 83 MPH
85th Percentile Vehicles on 05/03/2019 19:14:07
Max Speed 8443
Total Vehicles 706
AADT: 706

Volumes - weekly counts

<table>
<thead>
<tr>
<th>Time</th>
<th>5 Day</th>
<th>7 Day</th>
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<tbody>
<tr>
<td>AM Peak</td>
<td>706</td>
<td>690</td>
</tr>
<tr>
<td>PM Peak</td>
<td>06:00</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>04:00</td>
<td>56</td>
</tr>
<tr>
<td></td>
<td>82</td>
<td>75</td>
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</tbody>
</table>

Speed

| Speed Limit: 55 |
| 85th Percentile Speed: 57 |
| Average Speed: 48.27 |

Count over limit

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<thead>
<tr>
<th>Monday</th>
<th>Tuesday</th>
<th>Wednesday</th>
<th>Thursday</th>
<th>Friday</th>
<th>Saturday</th>
<th>Sunday</th>
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<tbody>
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<td>143</td>
<td>121</td>
<td>327</td>
<td>331</td>
<td>205</td>
<td>244</td>
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<td>20.8</td>
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<td>14.9</td>
<td>19.9</td>
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<td>58.4</td>
<td>58.1</td>
<td>58.1</td>
<td>58.2</td>
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Avg Speeder

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<tr>
<td>VEH_SM</td>
<td>sedan,</td>
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<tr>
<td>VEH_MED</td>
<td>VEH_LG = truck</td>
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