“The Portable Bridge WIM”

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Agenda
Alabama
2018 Lift Axle Study

Mississippi
2018 Harvest Analysis

Installation

2006 FHWA SCAN Tour, Slovenia

Strain-gauge placement

0 Identify strain gauges per lane, orientation, depending on bridge structure, and on the underside of the bridge.
Installation

SiWIM App

Calibration
Lift Axle Utilization Loaded & Unloaded

<table>
<thead>
<tr>
<th>Location</th>
<th>Lift Axle Trips</th>
<th>Lift Axle Loaded</th>
<th>Lift Axle Unloaded</th>
<th>Lift Axle Conformance</th>
<th>Lift Axle Overloading</th>
</tr>
</thead>
<tbody>
<tr>
<td>US-31 Autauga County</td>
<td>605</td>
<td>238</td>
<td>367</td>
<td>67</td>
<td>30%</td>
</tr>
<tr>
<td>US-31 Autauga County</td>
<td>307</td>
<td>107</td>
<td>200</td>
<td>46</td>
<td>13%</td>
</tr>
<tr>
<td>US-31 Autauga County</td>
<td>398</td>
<td>139</td>
<td>259</td>
<td>100</td>
<td>20%</td>
</tr>
<tr>
<td>Total</td>
<td>1305</td>
<td>572</td>
<td>732</td>
<td>215</td>
<td>25%</td>
</tr>
</tbody>
</table>

Overloading on US-31 Autauga County

- Lift Axle Conformance
- Lift Axle Overloading
Incremental GVW overloading on 1-S-3 trucks with lift axle up (US-80 Montgomery County)

Incremental GVW overloading on 4-axle trucks (US-80 Montgomery County)

GVW overloading on 1-S-3 trucks with lift axle down (US-80 Macon County) 50% Min. Loading

Pre-Selection for Enforcement
Overloading of heavy vehicles with GVW over 7,000 pounds

<table>
<thead>
<tr>
<th>Lane 1 - Cleveland</th>
<th>301</th>
<th>8</th>
<th>2.7%</th>
<th>12</th>
<th>4.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane 2 - Rosedale</td>
<td>329</td>
<td>122</td>
<td>37.1%</td>
<td>191</td>
<td>58.0%</td>
</tr>
<tr>
<td>Both lanes</td>
<td>631</td>
<td>130</td>
<td>20.6%</td>
<td>203</td>
<td>32.2%</td>
</tr>
</tbody>
</table>

SR-8 Overloaded Vehicles per Lane

<table>
<thead>
<tr>
<th>Lane</th>
<th># of overloaded</th>
<th># of overloaded with 2 or more</th>
<th># of overloaded with 3 or more</th>
<th># of overloaded with 4 or more</th>
<th>% of overloaded</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lane 1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lane 2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Both lanes</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2018 Mississippi Harvest Study

SR-8 Asymmetrical Overloading & Overloaded Breakdown
All 5-axle semi-trailer over 84,000 pounds during the measurement (SR-8).

Overloading on all vehicles

Average number of vehicles vs. average daily ESAL per lane

SR-6 Heaviest Crop Truck

Tractor with trailer weighing 157,982 pounds

Harvester with 77,580 pounds.
2018 Mississippi Harvest Study

Heavily oversized harvester with 79,167 pounds

2018 Mississippi Harvest Study

When Empty – Overloaded on Front Axle.

2018 Mississippi Harvest Study

Exceptional transport with 8-axles and 148,392 pounds of GVW

Questions?