Marysville Cable Median Barriers Report

Doug MacDonald
Secretary

Paula Hammond
Chief of Staff

Dave McCormick, P.E.
Assistant NW Region administrator for Maintenance and traffic

Joint Transportation Committee
July 19, 2007
Cable Median Barriers Report

• Statewide data comparing cable median barrier and concrete barrier indicates that concrete barrier reduces the risk of cross-median collisions, but nearly doubles the overall risk of death or injury.

• The toll of median and cross-median fatal and disabling collisions has dropped sharply in locations where cable median barrier were installed.

• Apart from the 10-mile stretch of I-5 in Marysville, not a single crossover fatality has been recorded on Washington’s freeways in locations where cable median barrier have been installed.

• Excluding I-5 in Marysville, cable barrier has the lowest percentage of fatal and disabling collisions of all freeway median barrier types in Washington state.
The data shown within the segments where cable median barriers were installed/planned as of March 2007. Collision data is available through 2006. Vehicle Miles Traveled (VMT) is based on estimated ADT for the segments where cable median barriers were installed as of March 2007.

** 166.1 miles of segments where cable barriers were installed or in contract as of March 2007.
Cable Median Barriers Report

• From 2000, installation of cable median barriers on Washington state highways has grown more than 165 miles.

Source: WSDOT Headquarters Design Office
Cable Median Barriers Report

- This chart shows the number of median and cross-median fatal and disabling collisions for the state.
Cable Median Barriers Report

- Where cable median barriers have been installed, the number of fatal and disabling collisions after vehicle passed through cable median barrier has been very small.

Source: WSDOT Transportation Data Office and Headquarters Design Office
Cable Median Barriers Report

- Diagram of the recommendations for the Marysville I-5 median.
Cable Median Barriers Report

Median barrier installation recommendations based on historical crash rates.

<table>
<thead>
<tr>
<th>Crash rate †</th>
<th>Site characteristics</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>More than 1</td>
<td>No median barrier, median 30 feet Evaluate cost benefit of using a or wider and 6:1 or flatter slopes. cable median barrier.</td>
<td></td>
</tr>
<tr>
<td>More than 2</td>
<td>No median barrier, 30- to 50-foot wide median, 6:1 or flatter slopes, average daily traffic more than 75,000 vehicles and in rural/urban transition area.† Evaluate cost benefit of using a double run of cable, w-beam guardrail, thrie-beam guardrail or concrete median barriers.</td>
<td></td>
</tr>
<tr>
<td>More than 0.75</td>
<td>30- to 50-foot wide median, cable median barrier, 6:1 or flatter slopes, average daily traffic more than 75,000 vehicles per day and in rural/urban transition area.‡ Evaluate cost benefit of replacing a cable median barrier with w-beam, thrie-beam or concrete median barriers.</td>
<td></td>
</tr>
</tbody>
</table>