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|  | DRIVER (SPEED) FEEDBACK SIGNS | | Issued: DEC 2010 |
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| RECOMMENDED PRACTICES | PART | HIGHWAY SIGNS | |
| | SECTION | MISCELLANEOUS | |
| | SUB-SECTION | TEMPORARY | |

General

Driver (Speed) Feedback Signs are signs designed to relay vehicle specific information back to motorists. The most common form of Driver Feedback Sign utilizes a radar assembly or other device for detecting the speed of approaching vehicles and relays that information to motorists through a changeable message display. Studies have found that Driver Feedback Signs used in this manner can be effective in reducing mean and 85th percentile speeds in a variety of situations, especially when the locations speed limit is posted in conjunction with the Driver Feedback Sign.

While studies have shown that Driver Feedback Signs can be effective in reducing operating speeds in the long term, the greatest speed reductions are gained shortly after a Driver Feedback Sign is installed. Permitting permanent installations may lead to a proliferation of Driver Feedback Signs which could lessen the visual impact of the signs when they are needed most. To maximize effectiveness, Driver Feedback Signs should only be used on a temporary basis at locations where they are most needed.

Sign location has a significant impact on the effectiveness of Driver Feedback Signs. Driver Feedback signs offer the greatest benefit when they are placed at a point where there is a reduction in the posted speed limit. Examples include highway transition zones, school zones, playground zones and construction zones. It is

expected that operating speeds will gradually increase as the motorists travel further downstream of a Driver Feedback Sign. Driver Feedback Signs should only be expected to provide a reduction in operating speeds at the point where the sign is placed. If excessive operating speeds over a large distance of highway are a concern, other speed mitigating techniques should be considered.

Driver Feedback Signs must be approved by the nearest Alberta Transportation district office prior to installation. Any parties wishing to place a Driver Feedback sign within the highway right-of-way must first submit an application to Alberta Transportation.

After reviewing an application, Alberta Transportation may issue a Letter of Approval allowing for the placement of signs within the highway right-of-way.

A listing of Alberta Transportation district offices and an example of the sign application is available at the following location:

<http://www.transportation.alberta.ca/613.htm>

Standard

A typical Driver Feedback Sign consists of a radar assembly and a changeable message sign capable of displaying motorists' current speeds as recorded by the radar assembly mounted together with a sign displaying the speed limit at the location.

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Driver Feedback Signs may be part of a portable trailer assembly or temporarily mounted on a post, examples of each are shown below:



Guidelines for Use

Eligibility

Driver Feedback Signs may be installed on a temporary basis (30 days or less) at locations where the posted speed limit transitions from a higher speed limit to a lower speed limit and excessive speeding has been identified as a safety hazard or potential safety hazard at the location. Driver Feedback Signs should always be accompanied by a Maximum Speed Sign (RB-1) or a condition specific speed sign such as the School Zone Sign (WC-1) and its accompanying 30 km/h tab.

Driver Feedback Signs placed in construction zones must be approved as part of the site's traffic accommodation strategy. The guidelines for traffic accommodation in work zones are contained in Alberta Transportation's *Traffic Accommodation in Work Zones, 2008 Edition*.

Operation


Driver Feedback Signs must have the following operating features:

- Blank display (programmable for time of day if required at the location);
- Speed feedback display;
- Flashing speed feedback display;
- Maximum speed display threshold;
- Adjustable brightness level (to minimize glare at night).

A blank display must be shown at all times when the reduced speed limit is not in effect (i.e., when placed in a school zone, the display must be turned off outside of school hours). When in operation, Driver Feedback Signs must display vehicle speeds that are at or below the posted speed limit in solid (non-flashing numerals). Speeds that exceed the posted speed limit by 5 km/h or more may be displayed in flashing numerals to bring increased attention to the sign.

Driver Feedback Signs must be programmed to not display speeds that are well in excess of the posted speed limit to discourage motorists from "racing" the speed display. The maximum speed that a Driver Feedback Sign may display is outlined in the table below:

| Posted Speed Limit | Maximum Speed Display Threshold |
|--------------------|---------------------------------|
| 30 km/h or less | 50 km/h |
| 40 km/h | 60 km/h |
| 50 km/h | 80 km/h |
| 60 km/h | 90 km/h |
| 70 km/h | 110 km/h |
| 80 km/h | 120 km/h |
| 90 km/h or more | 130 km/h |

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When speeds greater than the maximum speed display threshold are detected, the sign may:

- Display a blank message;
- Display value of the maximum speed display threshold; or
- Display a text message such as “slow down” or “too fast”.

Sign Removal

Driver Feedback Signs placed at locations with a temporary reduction in the posted speed limit (i.e., construction zones) must be removed once the temporary speed limit is removed or earlier if indicated in the site’s traffic accommodation strategy.

Driver Feedback Signs placed at locations with a permanent reduction in the posted speed limit must have the display turned off, or have the sign removed when the desired speed compliance is achieved. The compliance level can be measured by either of the following or combination of them: Public feedback on speed reduction, Regional/District office or MCI observations, speed study, and law enforcement. The sign loses its advocacy if it is set for a longer term. Some municipalities are using this sign on a permanent basis. It is recommended to install this sign as a temporary measure, however, municipalities are allowed to place the sign on a permanent basis. At these locations, Driver Feedback Signs should only be used as a tool to monitor operating speeds and/or as a method of alerting motorists to a recent change in the traffic control scheme (i.e., new school zone or playground zone, introduction of a new transition zone, etc).


Guidelines for Placement

Post Mounted Signs

If a Driver Feedback Sign is temporarily mounted on a post, it shall be placed on the right hand side of the road. Sign placement shall follow the guidelines outlined in the *Recommended Practice Guideline - Placement of Signs*. It may be possible to use existing structures to mount a Driver Feedback Sign and should be evaluated on a case by case basis.

Portable Trailers

Driver Feedback Signs that are part of a portable trailer assembly are considered to be a hazard as defined by Alberta Transportation’s *Roadside Design Guide*, and each site will need to be evaluated individually to determine the best location and protection that minimizes the safety risk associated with placing a trailer mounted sign within the clear zone of a highway. If on a construction site, the placement will also have to be outlined in the site’s traffic accommodation strategy.

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References to Standards

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| <i>Recommended Practices</i> Section: General | Placement of Signs |
| <i>Traffic Accommodation in Work Zones, 2008</i> Section I | 9. Traffic Control Devices |
| <i>Roadside Design Guide</i> Chapter H8 Chapter H10 | Signs Supports and Poles Work Zone Considerations |