

Idaho Port-of-Entry Ramp Monitoring

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One of the effects of shrinking transportation budgets is the inability for state DOTs to rebuild key infrastructure as often as is needed. For many states this includes weigh stations and ports-of-entry. Many of these outdated facilities were originally built during an era of fewer and smaller trucks on the nation's highways. Short intake ramps for these facilities combined with today's much larger trucks and higher rural freeway speeds have created safety issues in several states when truck queues back up on an intake ramp. Frequently, these backups can extend onto the travel lanes of the freeway creating a dangerous situation. Often the extent of the backup cannot be seen from within the weigh station or port building. In the past port operators often relied on the facility serving the opposite direction to visually detect the backup and alert the operator of the problem via telephone. In Idaho this problem has been addressed at five locations through the deployment of technologies combined to alert port operators of a developing backup and allow visual verification of the intake ramp. Radar-based speed detection coupled with customized software generates an alarm in the weigh station alerting inspectors that speeds on the ramp have dropped below a predefined threshold. A closed-circuit television system then allows the inspector to verify the backup and close the port to further traffic if the situation warrants. The system also provides an automated mode wherein the port will close with no input from the inspector, although reopening requires the inspector to resume manual operation. Additional benefits include security applications associated with the PTZ equipped camera and recording of the camera feed for use by the department. This presentation will review the combination of elements that contribute to the problem and provide an overview of its extent. The system will then be explained in terms of the technology through requirements collection, design development, procurement/contracting, construction and testing. Locations in Idaho where this system is in operation will be identified including a location on I-90 at the Huetter port-of-entry just a few miles from Coeur d'Alene and the conference.