

ATTACHMENT C

RECENT EXAMPLE OF A BRIDGE PENETRATION

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Recommended Guidelines for the Selection of Test Levels 2 through 5 Bridge Railings



Malcolm H. Ray, P.E., Ph.D.
Christine E. Carrigan, P.E., Ph.D.
Olaf Johnson
RoadSafe LLC
12 Main Street
Canton, Maine 04221

On Wednesday, December 28th, 2011 Luigino and Vittorina Parissi were driving their pickup truck along the Ste. Anne de Bellevue Rd. in Quebec City when they lost control of the vehicle and left the roadway. The truck vaulted over a barrier on an overpass and fell onto railway tracks where it was then hit by a train (Figure 1). No one was injured on the Via Rail passenger train, but both occupants of the truck died in the crash.

Montreal police spokesman Andre Leclerc told reporters "a train in motion collided with that pickup truck on the track. ... Weather may be one of the factors because it was windy, it was snowing at the time." [CBC01]



Figure 1. Pickup Truck where it Crashed on Railroad Tracks

Technically the road section where the crash occurred was not a bridge but more like a box culvert since the barrier was a soil-mounted w-beam barrier as can be seen in Figure 2 and Figure 3. The crash is still of interest, however, since it illustrates the catastrophic potential of penetrating barriers in the vicinity of certain kinds of hazards like rail road tracks. After the crash occurred Transport Quebec installed a temporary concrete barrier at the location (Figure 4).



Figure 2. W-beam Guardrail Roadside Barrier, Angle 1 [Google Earth]



Figure 3. W-beam Guardrail Roadside Barrier, Angle 2 [Google Earth]



Figure 4. Temporary Concrete Traffic Barrier at Crash Location [CBC02]

GAZ01

<http://www.montrealgazette.com/news/killed+truck+flips+Montreal+overpass+onto+rail+tracks/5919774/story.html> - photos

CBC01

<http://www.cbc.ca/news/canada/montreal/story/2011/12/28/montreal-overpass-crash.html?cmp=rss> – main story details

CBC02

<http://www.cbc.ca/news/canada/montreal/story/2012/01/25/overpass-deaths-barrier-fixed.html> - new barrier installed, accessed 13th February, 2012