

Snow Plowed Onto Guard Rails Is Dangerous

Well over 20 years ago the University of Western Ontario Multi-Disciplinary Accident Research Team wrote a research paper entitled "Unsatisfactory Roadside Barrier System Performance in Real-World Collisions: Lessons to be Learned" (SAE, 1987).

One of the cases that we high-lighted in that paper was of snow that was plowed onto a guard rail that was placed in front of a bridge abutment. In cold weather the snow solidified into ice. An out of control vehicle travelled toward the guard rail but, instead of striking the "W" bar of the rail it rode over top of the ice/snow embankment and struck head-on into the concrete bridge abutment. This was a lesson to be learned.

Yesterday I happened to be travelling through the streets of London when I travelled northbound on Clarke Road toward the bridge that crosses the north branch of the Thames River. I took the two photos below showing the snow conditions of the east guard rail.





You can see that snow has been plowed onto the guard rail. As temperatures drop and the snow is compressed it becomes icy and very solid. A loss of control vehicle can easily climb such a hard bank and become projected into the river bank or river on the other side. The dimensions of the guard rail were designed of a particular height and stiffness to prevent such catapulting. As an example of a proper treatment the photo below shows a concrete median barrier on Highway 401 just east of the Highbury Ave interchange as you approach London, Ontario.



As can be seen in the photo above, snow has been plowed but it has also been mostly removed from beside the concrete barrier. Although not perfect is it much better than the condition shown in the previous two photos. Higher roadway volumes sometimes receive higher "levels of service" and Highway 401 is still under the control of the Provincial government so most things are still done properly.

My point is that through Ontario's deregulation of the maintenance regulation of its highways individual municipalities take control of how the roadways in their jurisdiction will be maintained. With differing results. The standardization of maintenance procedures that was mandated by Provincial policy now is watered down as each municipality become the "expert" how its roadways will be maintained. Many local experts are not experts, or simply change the rules to reduce costs and we get things like I am showing here. It is cheaper to simply leave the plowed snow against the guard rail with the hope that a loss of control event will not occur resulting in the catapulting that I warn against. Unfortunately, the legal departments of some municipalities can decide that it might be more cost effective to be involved in a few civil litigations against them than to pay the costs of proper roadway maintenance. Given that the municipalities also control police budgets, information about roadway problems sometimes does not get reported by official agencies. If it becomes the interest of insurers to stop conducting proper investigations you can see that the public suffers. I hope it will not come that.