

# Gorski Consulting Website

## Archived News - 2015 - March

March 30, 2015

### Trinity ET-PLUS Guardrail Terminals – Revelations From Real-Life Impacts



Did the ET-PLUS guardrail terminal perform properly in this real-life collision? This is the question that remains unanswered amongst the numerous real-life collisions that receive no publicity for the public's independent evaluation.

Discussion continues over the safety of Trinity ET-PLUS guardrail terminals that are installed in their hundreds of thousands throughout North American highways. While recent controlled testing by the U.S. Federal Highway Administration (FHWA) would appear to confirm that the altered design of Trinity Highway Products passes the



controlled testing protocol (NCHRP-350) developed for such barrier evaluation, nothing has been said about the functioning of these terminals in actual, real-life impacts. In fact, when such a real-life collision occurs, the damaged terminals are swiftly removed and replaced without publicity or comment.

Gorski Consulting has been able to track down several damaged ET-PLUS terminals that had not yet been replaced and we have prepared an article that discusses the details of our findings. Please visit the Articles webpage and review this revealing discussion.

**March 23, 2015**

### **CAA And News Media Continue Confusing Propaganda Regarding Worst Roads in Ontario**



Although the visible evidence clearly shows that numerous drivers sustained damage to the underside of their vehicles from crossing over this road surface, the road was not even mentioned in the 2014 CAA list of worst roads in Ontario.

At face value, the actions of the Canadian Automobile Association (CAA) and news media would appear to be helping the motoring public with their annual announcements of the “Worst Roads” campaign. At face value the idea of publicizing the existence of the worst roads in Ontario would seem virtuous and moral. However, if the worst roads are misidentified then the process is far from helpful to anyone. So, when the CAA asks individuals to go to their website and identify the worst road they can think of, are they truly identifying the worst roads? Neither the CAA nor any of the news agencies that publicize the campaign have ever demonstrated that this is the case.

It does not require much research to note that, when the average person complains about a particular road, they are often doing so because they have travelled on a road in their area and have found it offensive for one reason or another. That average person knows very little about how funds are allocated to repair one road or the next. Nor do they have any technical knowledge of why this happens. This is akin to sending that person into an operating room and giving that person the power to do whatever they want with a patient, without understanding what may be causing the ailment.

Without some reasoned, intellectual, experienced basis for claiming that one road is worse than another, the CAA and news media have collaborated in a “lynching” of the most obvious suspect, without reviewing or understanding the evidence.

### **General Motors Ignition Switch Defect Claims 74 lives and 126 Injuries – And Counting**



The latest report of mounting fatalities and injuries acknowledged by General Motors legal department is that 74 persons have been killed and there were an additional 126 injuries related to the ignition switch defect. These numbers may mean nothing as the

eventual numbers could be vastly higher if the remaining claims, not acknowledged by General Motors, succeed in court.



**March 21,2015**

**Evidence of Real-Life Impacts With ET-PLUS Guardrail Terminals Exists –  
However It Is Not Being Revealed**



Example of a damaged ET-PLUS guardrail terminal located in Kilworth, Ontario (West of London). These terminals may not function as designed in real-life collisions and the determination must be made from examining the results of real-life collisions, not controlled testing.

We happened to be travelling eastbound on Highway 401 to Toronto on Thursday, March 19th when we came across two incidents where Trinity ET-PLUS guardrail terminals had been struck and damaged. Clearly, these happenings are extremely important as North American authorities seem to be split in their determination whether the ET-PLUS terminals are defective and dangerous. Publicity of the results of controlled testing of the terminals earlier this month has focused on the passing grade given to them whereas absolutely nothing has been divulged regarding how these terminals actually perform in real-life collisions. One needs to question why, after years installation of hundreds of thousands of these units throughout North America, there has been nothing released regarding the real-life performance of the units in actual collisions.

In our travel on Highway 401 on Wednesday, we observed that repairs were being made to an ET-PLUS terminal on the north side of the westbound lanes, just east of Blandford Road (just east of Woodstock, Ontario). The extent of those repairs was blocked from our view by the various work trucks however it seemed evident that the work was substantial.

In a second incident, we had a clear view of the damage caused to an ET-PLUS terminal on the south side of Highway 401 about 3 kilometres west of Trafalgar Road (just west of Toronto). This terminal was clearly visible because it was adjacent to the eastbound lanes. We noted there was substantial damage however the guardrail did not slide through the terminal in the way it was designed to, and in the manner it is shown to function in videos of the controlled testing. Indeed, the guardrail buckled and jammed in the manner shown where many vehicles were harpooned in real-life collisions. Unfortunately we were not in a position to take a photograph of its state.

Yet, there it stood, a clear sign of its defective function, visible for all the thousands of drivers to see.

Curiously, we were contacted recently by a talk-in radio host in London, Ontario where we were asked about our opinion regarding the fact that the ET-PLUS terminals had passed the controlled testing that was requested by the U.S. Federal Highway Administration (FHWA). It seemed as if the results of this controlled testing was all that mattered while the importance of examining real-life collisions was minimized.



The safety of roadside barriers cannot be isolated to problems with the Trinity ET-PLUS terminal. In fact, the older ET-2000 terminal shares a similar design with the newer ET-PLUS and both can experience problems when the guardrail is not fitted into the channel in the manner of the controlled testing.

As an example, the photos below show an ET-2000 terminal located on Sunset Drive in St Thomas, Ontario. Note how the end of the guardrail is not fitted into the channel of the terminal.



Note how the end of the guardrail is protruding out of the channel of this ET-2000 terminal located on Sunset Drive in St Thomas, Ontario. Clearly, if this channel was struck by a vehicle there should be considerable concern that it would not function in the same manner as the controlled testing.





Note how the end of the guardrail is sticking out from the side of the channel within which it should rest. Clearly, when struck this guardrail will not slide through the channel of the terminal as it is designed to do. The harpooning of a striking vehicle is a very likely possibility.





Since the end of the guardrail is not anchored to the channel of the terminal it can slip out of position in either the ET-2000 or ET-PLUS terminals.

While we remain as objective bystanders in this debate we also remain bewildered and alarmed that the general population can be directed off course so easily by the media's focus on the results of the controlled testing. Yet, the malfunctioning of an ET-PLUS terminal, sitting within the view of thousands of drivers on the busiest highway in Canada, does not raise a single eyebrow of concern.

**March 20, 2015**

### **Rough Roads, Increasing Speed and Change in Test Vehicle Motion – Further Data**

In March of 2014 we uploaded two articles discussing the results from our testing on a road (Sunningdale Road, London, Ontario) that experienced upheaval of its surface due to winter frost. We reported the interesting fact that, as a vehicle's speed increases, the severity of its longitudinal motions (front/back) remain relatively constant however the severity of its lateral motion increases proportionally to the vehicle's increase in speed. As further verification of that fact we conducted further testing on April 5, 2014 and February 27, 2015. We have now uploaded an article to the Articles page of this website which discusses the results from all three testing sessions.

**March 11, 2015**

### **Gorski Consulting Continues Road Evaluations With Instrumented Test Vehicle**

On February 27, 2015, Gorski Consulting continued its road testing with a series of tests on Sunningdale Road between Highbury Ave and Clarke Road in north-east London, Ontario. This road segment has been the site of many previous tests because of its propensity to develop a "frost heave" wobble of its paved surface, as shown in the example photo below taken in the year 2011.





Example of frost heave of surface of Sunningdale Road in 2011.

Although the City of London has attempted to remedy the problem by re-paving the worst portion of the road segment, recent inspections in winter conditions demonstrate that the new pavement has also begun to disintegrate, as shown in the photo below.



View of the disintegration the surface of Sunningdale Road approximately one year after the surface was repaved.

As on previous occasions the testing on February 27, 2015, involved our test vehicle being instrumented with multiple video cameras that identify the precise location of the vehicle when vibrations are sensed.

The use of the accelerometer from an iPhone has proven to be accurate in documenting the accelerations experienced by the test vehicle as well as the motion of the vehicle along its three axes (longitudinal, lateral and vertical).

Because our testing has been performed over several years and under differing road conditions, including differences in the existence of frost heave, we have come to a better understanding of how road disturbances can affect vehicle motion and this knowledge helps in our reconstruction of real-life, loss-of-control, motor vehicle collisions.



Data processing is long and tedious work however we hope to display some further results in future articles on the Articles page of this website.

**March 2, 2015**

## **Response to Potentially Dangerous Guardrail Terminals Varied and Uninformed**



View of ET-PLUS guardrail terminal located on Wonderland Road in London, Ontario.

While citizens of Southern Ontario have suddenly been awakened to the fact that the roadsides of almost all their major highways are equipped with potentially dangerous guardrail terminals manufactured by Trinity Highway Products of Dallas, Texas, their responses to this fact are both varied and uninformed.

In Stratford, Ontario where local politicians have agreed to follow through with a class action law suit against Trinity, the response has been to consider replacing the small

number of ET-PLUS terminals that exist there. Meanwhile in jurisdictions such as London or Toronto, or highways under the jurisdiction of the Ontario Ministry of Transportation there has been total silence on the issue. In fact, even though Trinity was found liable by a U.S. federal jury, the City of London continued to install the ET-PLUS terminals in locations such as Clarke Road on the south side of the bridge to the north branch of the Thames River.

Meanwhile the extent of the average citizens' ignorance to the issue is exemplified in the comments made to various news articles such as one in the London Free Press on March 2, 2015.

For example, upon reading that the City of Stratford was considering replacement of the terminals, a reader wrote:

*“Instead of pissing away huge amounts of money on lawyers buy some plate steel and weld it on.”*

We understand the frustrations that citizens have with lawyers and their fees but what is meant by “...buy some plate steel and weld it on”? Clearly the writer has absolutely no appreciation of what is involved. And another wrote:

*“Did Stratford consider shopping Canadian first when it came to these guards and why this design? Whatever happened to barrels filled with sand?”*

Clearly this person does not understand the issue. And again, another wrote:

*“There is a reason that they build those rails to taper down into the ground. It's far better for the car to go over the rail than have the rail go through the car. The Idea that anybody would install a rail end like this is pure stupidity. Get crews out there ASAP, remove the end cap and taper the ends down to the ground. A properly equipped crew could correct these quickly with minimal cost. Whoever approved these should be fired immediately.”*

Again, while we cannot expect a high quality of understanding, these comments show an extreme lack of understanding of the problem. In our assessment it is not that we should blame the writers but instead we should recognize that very little useful information has



been passed onto the average citizen resulting in these bazaar comments. These are the persons that the elected officials must respond to and please if they are to be re-elected. Meanwhile the politicians themselves have very little understanding of the issue.

Meanwhile, hundreds and maybe even thousands of ET-PLUS installations exist in Southern Ontario. What next?

### **Court Costs – An Impediment to Social Justice**



Social justice is a medication that prevents anarchy. Social justice is achieved when citizens with grievances can have them adjudicated in a fair and unbiased court. Access to such a court cannot be theoretical but must be available in practice.

Civil litigation in the western world involves an additional penalty of “court costs” to the losing side. This becomes an impediment to justice when those costs are inflated. It is not unheard of that lawyers’ hourly rates can be \$500 or higher and that the lawyers who charge these rates actually do little of the work, as it becomes assigned to junior lawyers whose hourly rates are far less. All would appear to be fair when the court case

involves large corporations, associations and various governmental agencies as their pockets are deep. However, ordinary citizens who, in theory, have access to the courts are, in practice, are barred from them because of the inflated legal costs.

This problem became glaringly obvious recently when several families in south-western Ontario lost a legal battle against several large companies (K2 Wind, Armow, and St. Columban) who wanted to install large wind turbines in Lambton County. These companies have claimed court costs in the amount of \$340,000.

In our view, access to justice cannot be treated as a commodity, paid for by the highest bidder. Costs of \$340,000 to bring a matter to court are simply unreasonable. However such claims are not unheard of in civil litigation. When access to justice is denied the perception exists that there are no repercussions as those repercussions can be as distant as a tsunami wave. However, there are repercussions that any reasonable individual should be capable of understanding.



**March 1, 2015**

**After Over a Year of Existence, Local News Media Finally Inform the Residents of Southern Ontario of a Legal Battle Regarding Trinity Guardrail Terminals**



The ET-PLUS guardrail terminal manufactured by Trinity Highway Products of Dallas Texas, has been in the spot-light of American media for over a year. Yet, local news agencies in Southern Ontario have done nothing to inform the local population of the potential danger that might exist on the roadsides of Ontario highways.

Finally, after over a year of being in the spot-light of America news media, local news media in South-Southern Ontario have publicly acknowledged to their audience that a safety-related defect might exist in the numerous roadside guardrail terminals that cover almost every major highway in Southern Ontario.

The question remains, how could this happen? How can local news outlets in this modern age, and advanced society, get away with preventing their local audience from being informed about a potentially dangerous safety issue. Clearly, the ET-PLUS guardrail terminal manufactured by Trinity Highway Products of Dallas Texas, has been found guilty by a U.S. federal jury of essentially defrauding the U.S. Federal Highway Administration by not informing that agency of critical design changes that were made that researchers such as the those at the University of Alabama in Birmingham (UAB) determined made the ET-PLUS more hazardous to the public than its predecessor, the ET-2000. Since the ET-PLUS guardrail terminal was, by far, the predominant terminal installed throughout Southern Ontario it should have been obvious to any independent onlooker that citizens in Ontario should have been informed of what was occurring. Yet there was a total silence in Ontario's news world.

Now, on March 1, 2015, both the London Free Press and the London station of CTV News both ran stories that the City of Stratford had initiated a class-action law suit against Trinity Highway Products with respect to the installations of the ET-PLUS terminals within the City's boundaries. But where was this information to the public at a time when the public was potentially exposed to the alleged danger?

We can be assured that, when citizens die from a tainted water supply, a detective drug, or perhaps due to a serial killer wandering the streets, the news agencies of Ontario will wait a full year before informing the public of that fact. How comforting indeed.

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