

MEMO

From: Mikey O'Connor  
To: Buffalo County Board  
RE: Testimony IN SUPPORT of amending the BOA Timeline  
Date: January 31, 2012

I support extending the timeline for the Board of Adjustments from 30 to 180 days in order to allow more time to study and understand the safety issues associated with dramatically increasing the truck traffic on state highways and bridges.

For example – I've had a civil engineer conduct an informal review of the Praag Valley dugway on Highway 88 and he agrees that portions of that road may not meet current road construction standards. Approving permits that include plans to significantly increase heavy truck traffic on this under-standard road may create a significant legal liability for the County or the State if that increased traffic results in crashes or fatalities on that route.

Here's what he had to say about the road after a very brief review:

It looks like there are a couple tight reverse curves on that roadway that may not meet the current design requirements that are outlined in the American Association of State Highway and Transportation Officials (AASHTO) Policy on Geometric Design of Highways and Streets, which is the primary source of guidelines for modern roadway design.

Current regulations have requirements on sight distance, stopping sight distance, horizontal curves, vertical curves, superelevation transitions and drop-off protection that may have not been accounted for when the road was originally built.

It is possible that some of the current regulations may not have even been in place when the road was built.

I think, from a safety standpoint, that it would be in the State's best interest to analyze the current roadway before committing to substantially increasing the volume of truck traffic.

Furthermore, the lifespan of pavement is designed using Equivalent Single Axle Loads (ESAL's), which are used to normalize the affects of traffic from trucks to the traffic of a standard automobile.

A pavement design is determined by estimating the anticipated traffic volumes (converted into ESAL's) that the road can expect to have over the course of its design life and developing a pavement section that can handle those demands.

Increasing truck traffic increases the ESAL's substantially because of the additional axles. If the roadway was designed with a pavement section that did not account for the increased number of ESAL's, then the pavement life can be expected to decrease substantially.

The result of this would be earlier-than-expected repair of the existing road and the additional costs to build a new road to a thicker, more expensive section.

In addition, a road with that much curvature could not be reconstructed under traffic, which means that all of the added truck traffic would have to be detoured onto another roadway, which may also not be designed to handle the increased loading.

This is on top of the fact that full closures of a roadway would have a major impact to the current users of the roadway because it would cause them to drive several miles out of their way to get to their destination. In general, I think you have reasonable grounds for concern.

I hope that you will vote in favor of extending the Board of Adjustments timeline in order to be able to do the studies required to understand health and safety issues such as this one.

