

Truck Impact on Roads

Note: This document is intended for your use as a sample, solely at your option, and is not a requirement.

It has been common knowledge among transportation engineers for many years that trucks have an inordinate impact on roadway structures. That knowledge has not always been shared with policy makers as it tends to be dry esoteric data.

WSDOT prepared some documents for their Pavement Design Manual that provides a simplified comparison of impacts based on axle loadings. These documents outline the technical information to allow engineers to make more simplistic comparisons, e.g., "This truck has as much impact to the road as 10,000 automobiles." This approach provides a much easier to understand verbal picture to educate your policy makers and the public.

The "[Generalized Fourth Power Law](#)"; (a 'protected' Word document) gives you the formulas that can easily be plugged into a spreadsheet to give basic guidance for design and those simple comparisons. (Please DO NOT use them for final design -- go to the Pavement Manual or other design document.)