

The current report makes several references to the 1997 study. For example on page 10, the current study refers to the earlier one as looking at wind, safety and other considerations. It would be very helpful if the DOT posted the 1997 report on its web site.

The table of design criteria on page 11 lists limits on maximum grade. It appears that these numbers are reversed. Also it would be helpful to know the maximum grade on the Hoan in order to compare it to the standards.

Figure 6.1 on page 24 seems to be missing traffic figures for 2010. It would be useful to have these, particularly because there seems to be a slight negative correlation between I94 and Hoan traffic.

It would be useful in Figure 6.6 on page 30 to translate the variables used (pc/mi/ln and pc/h/ln) for those of us who are not traffic engineers.

It appears that the congestion estimates on page 40 were derived by applying the curves from Figure 6.6 to the peak traffic figures on page 39 but the text does not actually state this. However, if this was the approach, it is unclear to me why the bridge segment between interchanges would have a much poorer rating for three lanes than do the sections at either end at which merging. Presumably all three have the same traffic volumes.

It appears that the only model used to project future traffic on the Hoan was a time-series trend model giving increases of 13% (at 0.5% annually) to 27% (at 0.8% annually) over twenty five years. Thus it would be useful to have some estimate of the margin of error of the estimate. To the extent that a regression model was constructed using the traffic data from 2002 to 2010, this model could be used to also generate a 95% prediction interval for the year 2035. (Since the report does not give the actual traffic data, just graphical representations, it is not possible to make this calculation from the data in the report.)

Assuming the margin of error is large, it would be useful to add other models in forecasting future traffic volumes. For example, the report mentions that the area served by the Lake Parkway is largely built up, but it does not appear that future population projections were incorporated into the model. In addition, it does not appear that the report has considered the effect on traffic of projected gasoline price increases when the world economy recovers from the current recession.

Finally, it seems likely that the capacity of the two lanes in either direction of the Lake Parkway may be a limiting factor for traffic growth on the Hoan. In this connection, it would be useful to have comparable peak traffic counts for the Hoan and for the Lake Parkway just south of the Hoan to assess how much traffic enters or leaves at Carferry Drive. As the report points out, traffic continuing south on the Lake Parkway must merge to two lanes at that point.