

## Lexington-Fayette Urban County Government DEPARTMENT OF ENVIRONMENTAL QUALITY & PUBLIC WORKS

Jim Gray Mayor David L. Holmes Commissioner

October 7th, 2014

Dear Mr. Rhodes,

A speed analysis was completed for Cromwell Way between Clays Mill Road and Cornwall Drive. Traffic speed data was collected at two locations. Collection points for both eastbound and westbound Cromwell Way were between: Clays Mill Road and Keithshire Way as well as Keithshire Way and Cornwall Drive.

The Federal Highway Administration's Manual on Uniform Traffic Control Devices (MUTCD) Section 2B.13 addresses speed limits by stating "When a speed limit is to be posted, it should be within 5 mph of the 85<sup>th</sup> percentile speed of free-flowing traffic. Other factors that may be considered when establishing speed limits are the following:

- A. Road surface characteristics, shoulder conditions, grade, alignment, and sight distance;
- B. The pace speed;
- C. Roadside development and environment;
- D. Parking practices and pedestrian activity; and
- E. Reported crash experience for at least a 12-month period."

The findings of the speed analysis on Cromwell Way between Clays Mill Road and Cornwall Drive are as follows:

- A. The posted speed limit is 35 mph.
- B. Is classified as a residential collector.
- C. The roadway is approximately 36' in width.
- D. Sidewalks and utility strips exist on the north side of the road.
- E. Provided with street lights throughout its length.
- F. Property along Cromwell Way is zoned Single Family Residential, accordingly residential houses line this corridor.
- G. Parking is permitted along both sides of the road. Parking can have a calming effect on traffic. Parked cars narrow the travel lane and therefore affect the driver's perception and indirectly encouraging lower speeds.
- H. There has been one recorded collision reported on Cromwell Way within the study area since October 1, 2011.
- I. The following table is a summary of the data collected along Cromwell Way:

Cromwell Way Location Between:	Directi on of Travel	Average Daily Traffic	Speed Range for ½ of the Vehicles	Posted Speed Limit	Average Speed	Percent Exceeding Posted Speed Limit	85 <sup>th</sup> Percentile Speed
Clays Mill Road and	EB	280	20-25	35	25	3	29
Keithshire Way	WB	318	20-25	35	24	2	29
Keithshire Way and	EB	376	25-30	35	29	1	34
Cornwall Drive	WB	323	25-30	35	29	2	35

The pace speed is the 10 mph range that contains the highest number of the observed speeds. The high end of that range is usually very close to the 85<sup>th</sup> percentile speed. Our equipment does not calculate the pace speed. The 85<sup>th</sup> percentile speed, or the speed at which 85% of the vehicles are traveling at or below, is based on the theory that a large majority of drivers are reasonable and prudent, do not want to have a crash, and want to reach their destination in the shortest amount of time possible.

Conclusion: After considering the speed data obtained above, the residential nature of the area abutting Cromwell Way, the fact that Cromwell Way changes classification after passing through the intersection with Cornwall and subsequently drops to 25 MPH, the vertical alignment of this section, the relatively low traffic count along this roadway, and changing this section of Cromwell Way to 25 MPH would allow for more efficient application of speed limit signs in this area, Traffic Engineering recommends lowering the speed limit on Cromwell Way between Clays Mill Road and Cornwall Drive to 25 MPH.

Bryan Radabaugh, P.E.

Division of Traffic Engineering

cc: Jennifer Mossotti, 9th District Councilmember

David L. Holmes, Esq., Commissioner of Environmental Quality & Public Works

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