

DATE: May 24, 2021

TO: Boyd Mill Neighborhood Group

FROM: Paul Holzen, Director of Engineering

Jonathan Marston, Assistant Director of Engineering

Adam Moser, Traffic Engineer

SUBJECT: Traffic Calming Request for Boyd Mill Avenue

Purpose

The purpose of this memo is to summarize the results of the speed and count study that was completed September 2020. The data was collected from a request from a few citizens that reside within the subject street, via the process outlined in the City of Franklin Neighborhood Traffic Calming Program (NTCP). A second request from a larger group of residents along this street was received on May 5, 2021. This memo summarizes the results of the initial data collection effort.

Background & Results

The studies were performed at 2 locations, as shown in Figure 1. Locations were chosen based on ensuring that a majority of the vehicles were traveling at speed, and not in locations where intersections or conflicting/slowing movements could skew the data. Speed and count data were collected over 5 days including weekdays and a weekend for each location.



Figure 1 Speed Study Locations



Speed limits are typically set by studying the 85th percentile speed of a roadway as well as the classification of the street and the properties/residents in which the roadway serves. Speed limits on residential streets in Franklin are 25 Miles Per Hour (mph) unless otherwise posted. Boyd Mill Avenue is a 25 mph residential street.

The speed data summary is shown in Table 1. The highlighted column is the 85th percentile speed. This 85th percentile speed is the speed at which 85% of the vehicles captured are traveling at or below. The 85th percentile speed is used to determine how far over the speed limit vehicles are traveling. Table 2 represents the volume data that was also collected during this study period.

	Speed percentile (% of vehicles traveling at or below value)																		
Location	5th	10th	15th	20th	25th	30th	35th	40th	45th	50th	55th	60th	65th	70th	75th	80th	85th	90th	95th
415 Boyd Mill Ave	18	21	23	24	25	25	26	27	27	28	29	29	30	30	30	32	32	34	35
Buckworth Avenue	14	20	22	23	24	25	26	26	27	27	28	29	29	30	30	31	32	33	35

Table 1 Speed Data

Location	EB	WB	Total		
415 Boyd	789	904	1693		
Mill Ave	769	904			
Buckworth	n/a	n/a	n/a		
Avenue	11/4	11/ d			

Table 2 ADT (Volume) Data

The NTCP states that various criteria must be met for a traffic calming project to move forward. These criteria of the program is stated as follows:

- The Average Daily Traffic (ADT) volume for the street is greater than or equal to 500 vehicles per day.
- The 85th percentile speed is at least 7 mph faster than the posted speed limit.
- The posted speed limit is 35 mph or less.
- The street is a through street.
- The maximum grade on the section of roadway that is being considered for traffic calming measures does not exceed seven percent.
- The street is a local street.
- The combination of horizontal and vertical curves along the roadway is not such that would result in inadequate stopping sight distance for motorists as they encounter the traffic calming devices.
- Street must measure longer than 1000 feet between stop signs, sharp, or 90 degree turns.
- The street is not a transit route or a primary emergency access route.

The data in Table 1 shows that the 85th percentile speed on Boyd Mill Avenue to be 32 mph. The volume data in Table 2 shows that the daily volume on the roadway is approximately 1693. **The volume and speed criteria are met and therefore qualifies for the NTCP.**





Next Steps

This section of Boyd Mill Avenue does qualify for the Neighborhood Traffic Calming program and will move forward to the next step, which is a public meeting to discuss possible alternatives as well as the petition process that is the responsibility of the neighborhood group. Speed humps, or any type of 'vertical' deflection will not be approved by the Engineering Department due to the high volume on this roadway per the NTCP Program.

Funding is limited for the traffic calming program. We anticipate that any type of solution for this road may involve outside funding (capital funding) due to likely construction costs for extensive solutions, which may take a year or two to implement. Please distribute this memo as necessary and let us know some dates and times that work for the public meeting. We will choose a date and time and post signs around the neighborhood notifying residents of the public meeting.