

December 3, 2021

Mr. Marty Takacs
306 Mariemont Drive
Lexington, KY 40505-2131

Dear Mr. Takacs,

Per your request, a study was completed on Mariemont Drive between KY-57 (Bryan Station Road) and Brookmeade Drive to determine if closing Mariemont Drive at KY-57 is warranted for this local, residential street. The study gathered data and reviewed the volume and speed of vehicles utilizing the street. Volume and speed data were collected at four locations on Mariemont Drive for a 168-hour period.

In summary, based solely on the lack of sidewalks, Mariemont Drive meets the warrants for traffic calming per Neighborhood Traffic Management guidelines. This evaluation is detailed in the following pages.



Aerial of Mariemont Drive study area and surrounding area



Traffic Study

Data identified that the average daily traffic over the study period was 537 vehicles per day on Mariemont Drive between KY-57 (Bryan Station Road) and Brookmeade Drive. The 85th percentile speed of vehicles on Mariemont Drive was 31 mph. In addition, it was documented that 49% of the vehicles traveling on Mariemont Drive were traveling over the posted speed limit of 25 mph. The average speed of the vehicles on Mariemont Drive was around 25 mph. The table below shows the data that was obtained over the study time period:

Segments of Mariemont Drive		Avg. Speed (mph)	Speed Limit (mph)	% over Speed Limit	85 th PCTL Speed (mph)	Peak Hour Vol. (veh)		Avg. Daily Traffic Vol. (veh)	
A	NB Bryan Station to Grandin Rd	25	25	49.39%	30.80	32	76	194	307
	SB Bryan Station to Grandin Rd	23	25	39.92%	29.12	44		113	
B	NB Grandin Rd to Brookmeade Dr	24	25	43.12%	29.19	19	48	312	537
	SB Grandin Rd to Brookmeade Dr	25	25	48.83%	29.93	29		225	

The traffic data collected and listed in the previous table for Mariemont Drive between KY-57 (Bryan Station Road) and Brookmeade Drive shows this street does not meet the traffic calming warrants as prescribed by the NTMP manual.

The study area of Mariemont Drive between KY-57 (Bryan Station Road) and Brookmeade Drive has the following characteristics:

- Speed limit: 25 mph
- Street lighting: not present
- Width: 12'-6" lanes separated by a 21' landscaped median
- On-street parking: not present
- Utility Strips/Sidewalks: not present
- Pavement markings: not present
- Property zoning: R-1B

Collision History

A review of the collision history for the Mariemont Drive study segments per crashinformationky.org identified 2 recorded collisions in the 5 years prior to this analysis. There was 1 injury collision reported. Using the reported crashes, road geometry, and number of access points, the FHWA USLIMITS2 tool was utilized to determine the section crash rate and section injury crash rate. The FHWA USLIMITS2 was developed based on research through National Cooperative Highway Research Program (NCHRP) Project 3-67. Additional information is available at safety.fhwa.dot.gov/uslimits.



Mariemont Drive USLIMITS2 Report Summary			
Total Reported Crashes	2	Reported Injury Crashes	1
Crash Rate*	756	Injury Crash Rate*	378
Critical Crash Rate*	1028	Critical Injury Crash Rate*	533

* Rates are per 100 MVM (million vehicle miles)

As the section crash rates do not exceed the critical rates, the collision warrant is not met for Mariemont Drive.

Recommendations

As detailed in the *Neighborhood Traffic Management Program (NTMP)* manual, the criteria to be used by staff in evaluating the severity of the identified problem(s) shall include, but not be limited to:

- D. Local residential streets that do not have sidewalks, or any other pedestrian linkages.

Mariemont Drive meets the warrants for installation of traffic calming devices per Neighborhood Traffic Management guidelines.

Approved traffic calming options for this location include NTMP signage, edge line markings, or a Type 2 option.

Traffic Calming Options

Approved traffic calming options for this location include NTMP signage, edge line markings, or a Type 2 option.

- NTMP Signage
 - Installed at no cost.
 - Two signs would be posted with one facing each direction.
 - Signage designs may be selected from the NTMP sign enclosure.
- Edge Line Markings
 - Installed at no cost.
 - Parking restrictions will not be changed without a ballot.
 - Edge line installation designs may be selected from the edge line marking enclosure.
- Type 2 NTMP Options
 - Options include: speed tables, chicanes, chokers, textured pavement, landscaping, raised crosswalks, median islands, and traffic circles
 - Require a sponsor share paid for by the neighborhood prior to installation. Per the NTMP, based on the average property value in the petition area, the sponsor share is 40%.



- The 2022 fiscal year cost per speed table is \$5,000 and traffic engineering recommends 6 speed tables for a roadway of this length. Due to the narrow width of the speed tables, traffic engineering will discuss a reduced cost with our contractor prior to a ballot.

Emergency Services Review

The Division of Traffic Engineering coordinated with representatives from the Division of Police and Division of Fire and Emergency Services to obtain input regarding traffic and safety operations of Mariemont Drive.

- The Division of Police has reviewed this document and has no objections to the recommendations in this report.
- The Division of Fire is in opposition to any road closures or speed tables. Road closures or speed tables would cause delay and add time to our response in the event of an emergency call. Also, speed tables can be the cause of unwanted fire apparatus damage, leading to repairs funded by tax dollars.

Please review this report and recommendations with your neighbors. When you have determined your preferred NTMP option, please contact Grace Foley at the Division of Traffic Engineering. If a Type 2 option is selected, a voting ballot will be sent from Traffic Engineering to the property owners for approval of the traffic calming selection. The ballot will be sent with the required cost share and details of the traffic calming selection.

Should you have any questions, contact Grace Foley at the Division of Traffic Engineering.

Sincerely,



Grace N. Foley, P.E.
Traffic Engineer Senior
Division of Traffic Engineering
(859) 258-3485
gfoley@lexingtonky.gov

Enclosures: NTMP Signs, Edge Line Markings

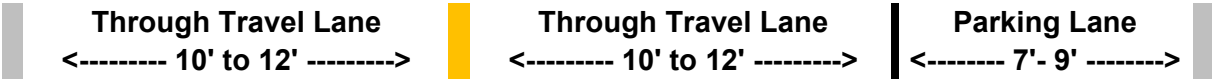
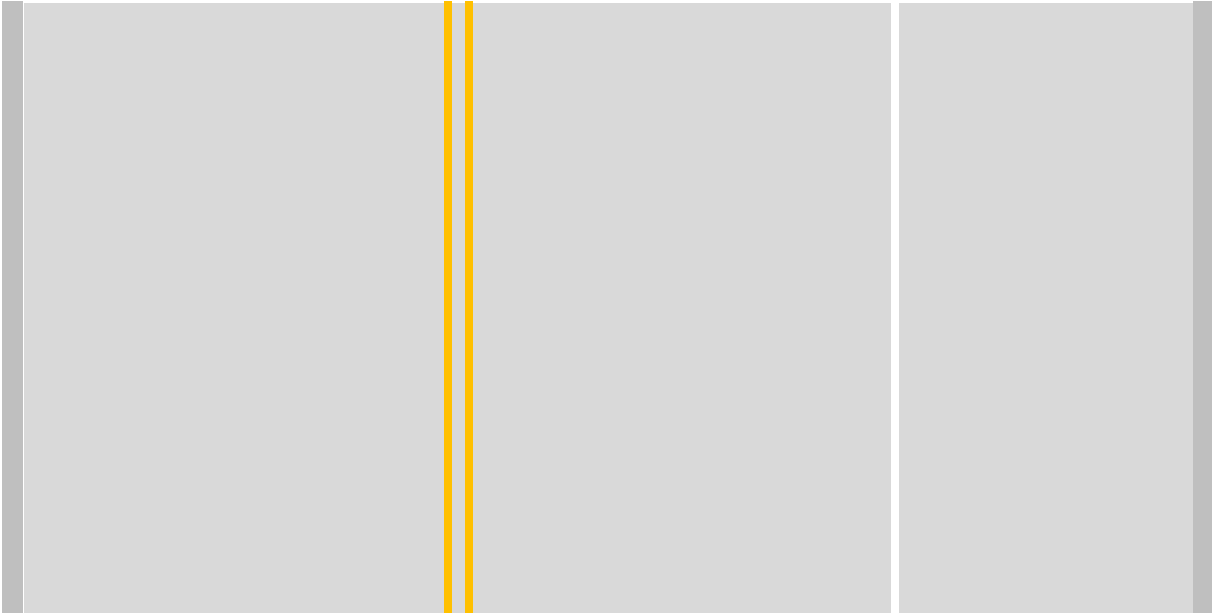
cc: David Kloiber, 6th District Councilmember
Nancy Albright, PE, Commissioner of Environmental Quality & Public Works
Jeffery Neal, PE, Director of Traffic Engineering
Jim Woods, PE, PLS, Deputy Director of Traffic Engineering
Greg Lengal, Captain, Division of Fire & Emergency Services
Jeremy Tuttle, Lieutenant, Division of Police
Deborah Sloane, Legislative Aide to CM Kloiber



Markings would be adjusted for 12.5ft wide lanes separated by a median.

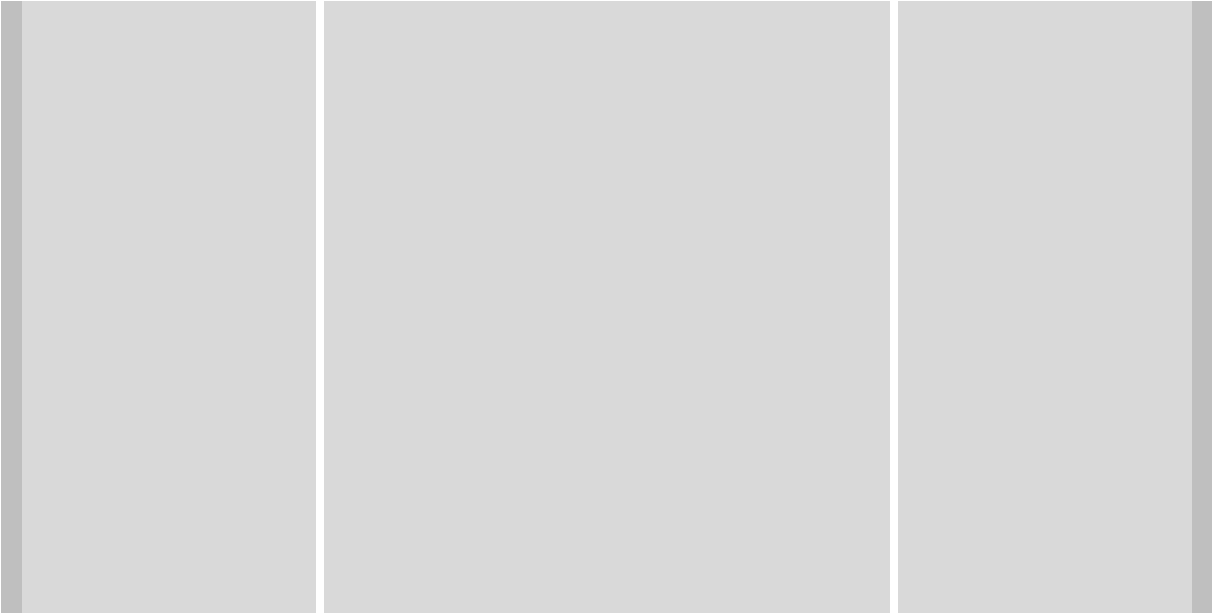
Parking Lane with Center Line

for 27' - 33' wide roads



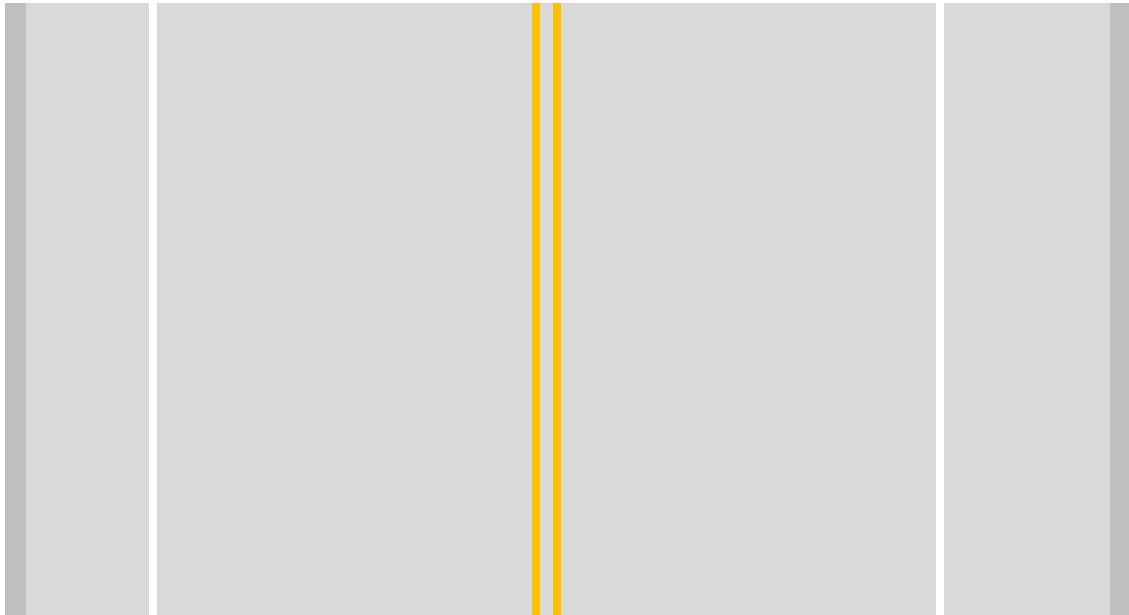
Parking Lanes without Center Line

for 30' - 34' wide roads



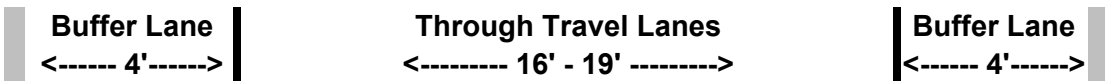
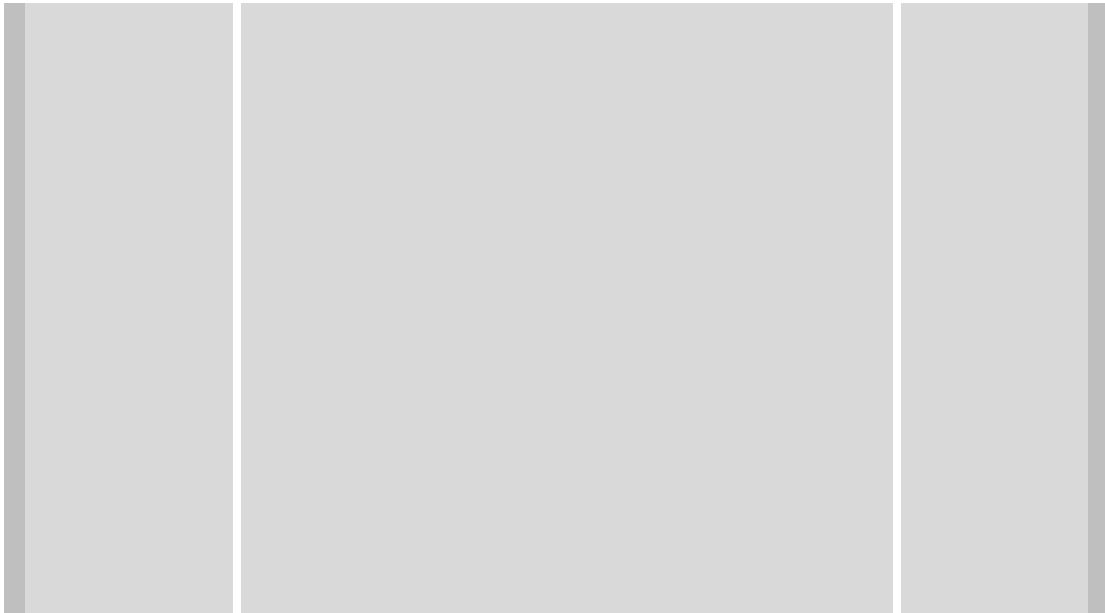
Buffer Lane with Center Line

for roads at least 26' wide



Buffer Lane Markings without Center Line

for 24' - 27' wide roads



NTMP Signs

