March 30, 2023

Dear Montgomery County residents and motorists:

The Maryland Department of Transportation State Highway Administration (MDOT SHA) appreciates your interest in the MD 187 (Old Georgetown Road) safety initiative in the North Bethesda area of Montgomery County, Maryland. First, we want to stress that we share your concerns about mobility and safety along MD 187. The safety of all highway users – drivers, bicyclists, and pedestrians – should be everyone's highest priority as we move towards zero deaths on our roadway system.

In 2021, there were 563 fatalities on all Maryland roadways, and 25 percent of those fatalities were vulnerable users such as bicyclists and pedestrians. Because one death is one too many, MDOT SHA is committed to the statewide Toward Zero Deaths goal. MDOT SHA strives to design and maintain a transportation system that carefully considers vehicle speeds, pedestrian facilities, potentially distracted drivers, lighting, and much more for all road users. MDOT SHA's Context Driven Guide, centered on establishing safe and effective multimodal transportation systems, is changing how we plan, design, build, and maintain our infrastructure. Part of that change is implementing infrastructure that better connects users to life's opportunities as well as protects the lives of all Marylanders. Sometimes this means decisions are made that may necessitate tradeoffs to ensure the safety for all users. As a result, MDOT allocated $80 million to protect vulnerable road users in the most recent six-year Consolidated Transportation Program (CTP).

MDOT SHA values our communities and public engagement. The feedback we have received since the lane reallocation on MD 187 have been helpful in identifying adjustments that balance safety and mobility for all users. Later this Spring, when weather permits, we will complete the remaining improvements of the project. MDOT SHA has been assessing traffic operations throughout January, February, and March to examine corridor performance and travel time impacts. We write this letter to update the public on our findings and any potential changes that resulted from our MD 187 assessment from Tilden Lane to Ryland Drive.

MDOT SHA continues to coordinate closely with MCDOT to improve operations through signal timing adjustments and other engineering enhancements. Intersection signal timings along the MD 187 corridor were optimized in early January to mitigate the impacts of the lane reallocation, improve vehicle travel times, and reduce congestion. The cycle length of most intersections was increased from 150 seconds to 180 seconds, except for the I-270 ramp terminal signals, whose cycle length was reduced to 120 seconds in order to better serve the left-turn movements to and from the ramps and to prevent excessive queuing.

A data collection effort was performed to quantify the impacts of the bike lane installation. Corridor travel times, spot speeds, and intersection turning movement counts were collected as part of this effort. Arterial and intersection Level of Service (LOS) was also developed based on

the collected data. Typical day corridor travel times were obtained from RITIS for the month preceding the lane reallocation (November 2022) and for each week following its implementation. Figure 4 and Figure 5 present the daily corridor travel times prior to the bike lane installation, the week following the implementation of the bike lanes, and the latest available week (February 7-9). While travel time increased significantly following the installation of the bike lanes, it reduced to levels comparable to before conditions over time. A more detailed comparison of peak hour travel times is presented in Figure 6.

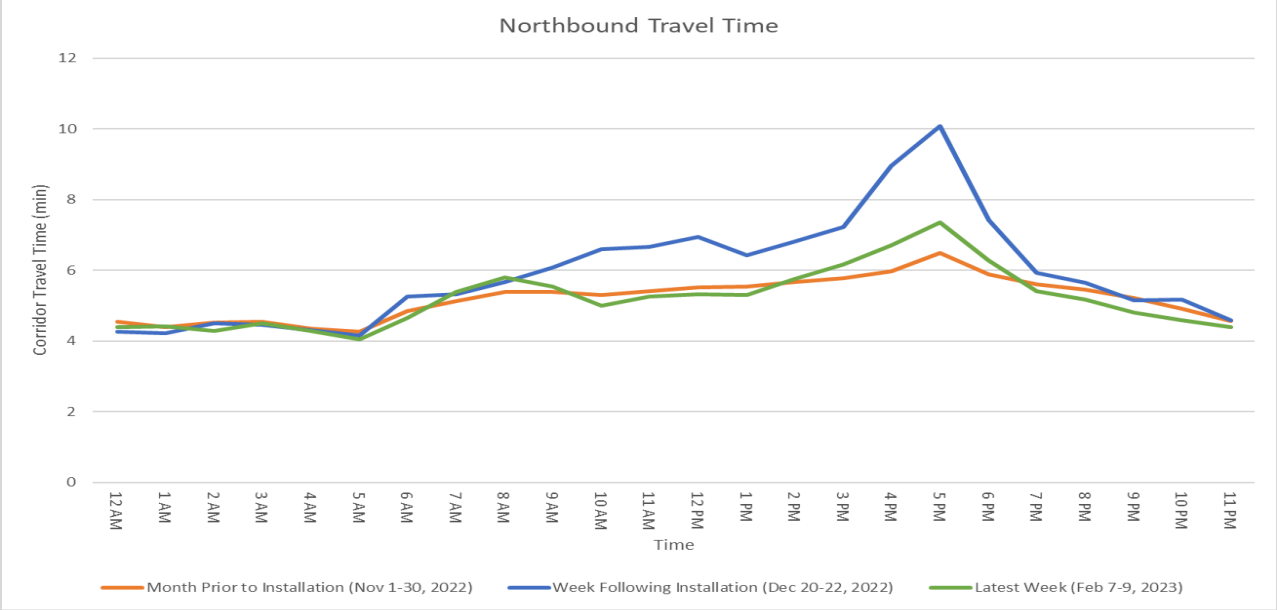

Figure 1: Northbound Corridor Travel Time

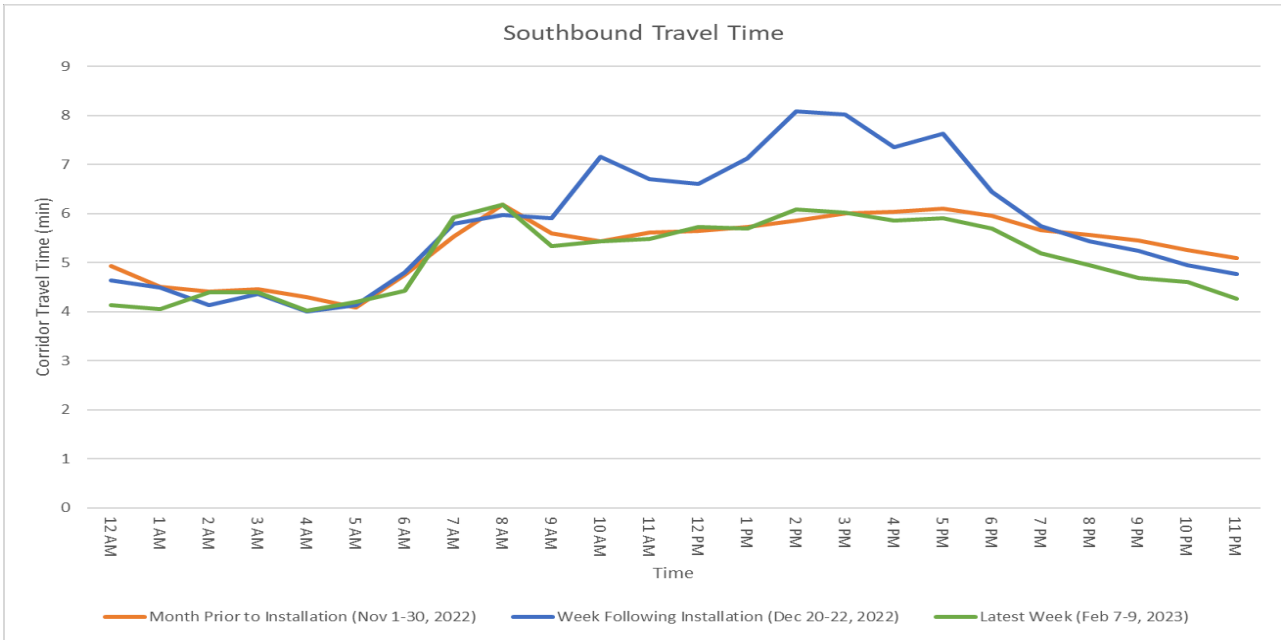

Figure 2: Southbound Corridor Travel Time

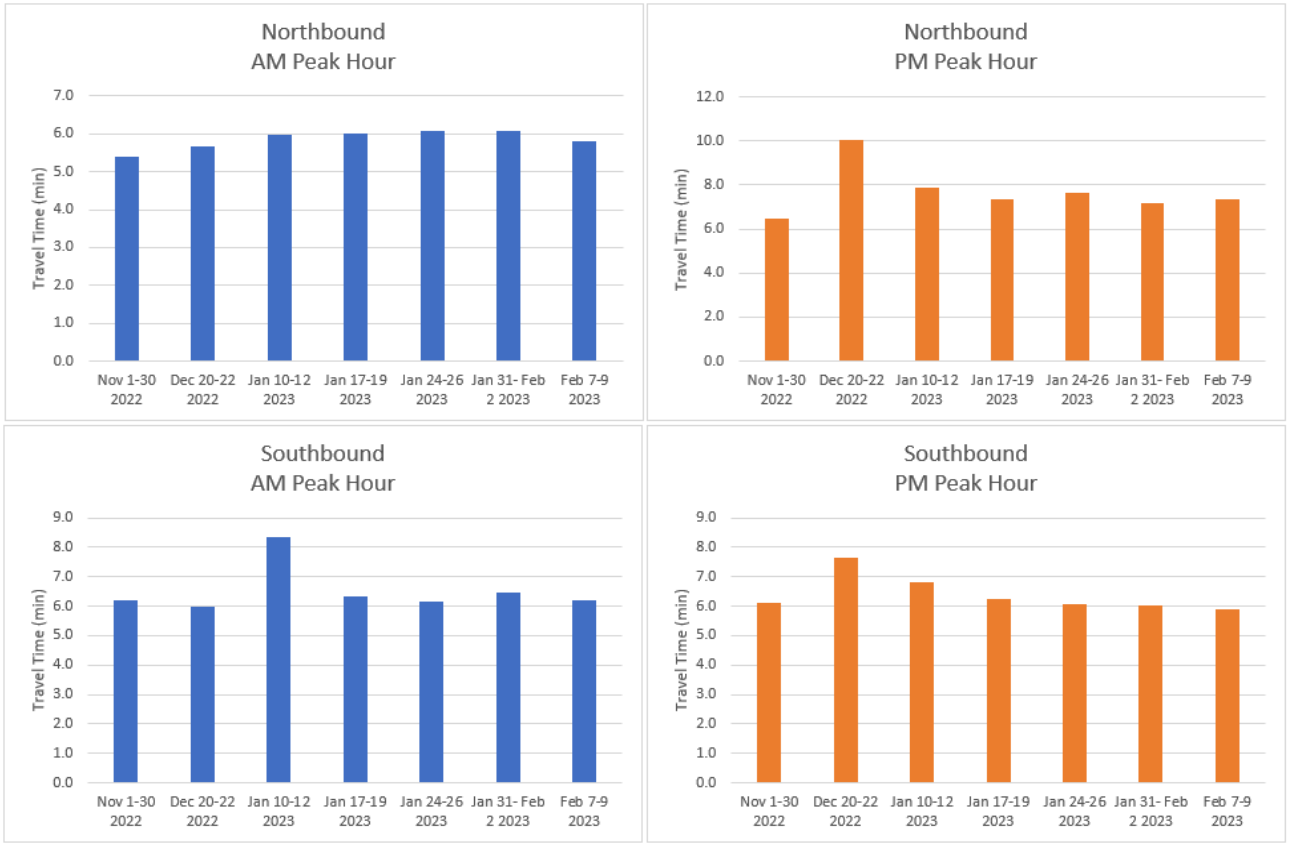

Figure 3: Peak Hour Travel Time Comparison

The impacts of the road diet on peak hour travel times are summarized below for each direction:

- In the northbound AM off-peak direction, travel times increased immediately following the implementation of the road diet and have reduced slightly since then. Travel times are currently 7% (about 0.5 minutes) higher than they were before the road diet.
- In the northbound PM peak direction, travel times increased immediately following the implementation of the road diet. Travel times have since reduced and are currently 13% higher (about 1 minute) than they were before the road diet.
- In the southbound AM peak direction, travel times did not see an immediate increase following the implementation of the road diet, likely due to lower traffic volumes during the holiday season and increased significantly the week following the holidays. Travel times have since reduced and are now comparable to what they were before the road diet.
- In the southbound PM peak direction, travel times increased the week following the implementation of the road diet and have since reduced to pre-road diet levels.

Spot speed studies were performed before and after the implementation of the lane reallocation at three locations along MD 187: south of I-495, between I-495 and I-270, and north of I-270. Speeds were collected during the mid-day off peak to quantify the impacts of the road diet on free flow speeds along the corridor. It should be noted that the posted speed limit within the

extents of the road diet were not yet reduced during this study. The posted speed limit reduction was completed on March 25, 2023. The results of the spot speed studies are summarized below:

- An increase in free flow speed occurred in the northbound direction, between Spruce Tree Avenue and Charles Street. It should be noted that this location is not within the extents of the recent lane reallocation but approximately 1,900 ft south of the start of the new bike lanes. There was no identifiable cause for the increase in speeds at this location.
- A notable reduction in free flow speed was observed in the southbound direction near Lone Oak Dr. The 85th percentile speed at this location reduced from 43 mph to 34 mph.
- All other locations and directions showed comparable speeds before and after the introduction of the road diet.

24-hour intersection volume counts were collected at several key locations along the corridor in January 2023 and compared to counts previously collected in September 2022. The count locations include the intersections of MD 187 with Tuckerman Lane, the I-270 Ramps, and Democracy Boulevard. A high-level summary of the peak hour vehicle volume comparison is presented below:

- MD 187 northbound AM volumes are comparable before and after the road diet.
- MD 187 northbound PM volumes decreased by approximately 150 vehicles.
- MD 187 southbound AM volumes decreased by approximately 200 to 300 vehicles.
- MD 187 southbound PM volumes decreased by approximately 150 vehicles to the north and south of the I-270 interchange but are comparable within the interchange.

An origin-destination (OD) study was conducted to assess whether the road diet led to an increase in cut-through traffic in the neighborhoods near the lane reallocation. Only one feasible cut-through route was identified along the study corridor: Luxmanor Road between Tilden Lane and Tuckerman Lane. This was the only cut-through route analyzed by the OD study. The study found that a negligeable number of vehicles (approximately 18 vehicles in 13 hours) used Luxmanor Road to bypass southbound queues along MD 187.

A safety review of the MD 187 corridor was also conducted. From 1/1/2022 to 10/1/2022, before the resurfacing and lane reallocation began, the corridor experienced a total of 40 crashes. Among the 40 crashes, 17 resulted in injury and one (1) resulted in a fatality. Six (6) of the 40 crashes were pedestrian or bicycle related. Among the six (6) multimodal crashes, five (5) resulted in injury and one (1) resulted in a fatality.

From 10/1/2022 to 3/15/2023, after the resurfacing and lane reallocation began, the corridor experienced a total of 35 crashes. Among the 35 crashes, nine (9) resulted in injury and none resulted in a fatality. We are pleased to inform everyone that none of the 35 crashes were pedestrian or bicycle related.

The focus of this project was to improve safety for vulnerable users of the system as well as motorists while balancing mobility along the corridor. A portion of those safety improvements was the extension of the existing MD 187 buffered bicycle lanes to the north of I-495. This extension connects the bicycle lanes that MDOT SHA and the Montgomery County Department

of Transportation (MCDOT) previously installed on MD 187. The installation of buffered bicycle lanes is consistent with the long-term strategies identified in the Corridor Needs Analysis in conjunction with other improvements along the corridor. Once weather conditions are more favorable for quality installation, additional infrastructure and technology improvements are expected to improve the operational efficiency and traffic flow of the corridor.

We appreciate hearing from you. If you need further assistance, please contact Mr. Joseph Moges, Assistant District Engineer for Traffic, at 301-513-7462, toll free 1-800-749-0737, or via email at jmoges@mdot.maryland.gov. Mr. Moges and his staff will be happy to assist you.

Sincerely,

Derek Gunn

Derek Gunn, P.E.
District 3 Engineer

cc: Mr. Andre Futrell, Deputy Administrator, MDOT SHA
Derek Gunn, P.E., District 3 Engineer, MDOT SHA
Tim Smith, P.E., Administrator, MDOT SHA
Cedric Ward, P.E., Director, OOTS, MDOT SHA