

VILLAGE OF HOMEWOOD



BOARD AGENDA MEMORANDUM

DATE OF MEETING: October 25, 2022

To: Village President and Board of Trustees

Through: Napoleon Haney, Village Manager

From: John D. Schaefer, Director of Public Works

Topic: 183rd Street Pilot Traffic Study Results/Recommendations

PURPOSE

In spring 2021, Burns & McDonnell was directed by the Village to conduct a study of potential improvements to 183rd Street in the Village of Homewood. A presentation was made by Burns & McDonnell to the Village Board in December 2021 regarding the findings of the study. Village staff was directed to review a list of recommendations, and to present their recommendations to the Village Board for direction and approval.

PROCESS

The corridor's west terminus for this study was Park Avenue and the east terminus was Halsted Street, a distance of 1.83 miles. The 183rd Street corridor consists of two traffic lanes in each direction for its entire length. The Halsted Street intersection was included in the study, but is generally not identified as a Village issue or a potential improvement location because the intersection and most of its concerns are under IDOT jurisdiction.

The following is a variety of causes that attributed to the various safety issues:

- Rear-end crashes at the signalized intersections were often due to backups at intersections.
- The frequency of driveways in some segments and poor sight lines at minor streets were the cause of a surprisingly high number of mid-block crashes.
- The offset geometry of the Center Street intersection results in confusing travel movements and a high concentration of angle and turning crashes.

Following the crash analysis effort, the Burns & McDonnell project team developed an extensive list of mitigation concepts outlined in the national and state versions of the Highway Safety Manual (HSM), which documented their potential for crash mitigation. Village staff reviewed a list of these mitigation concepts, which could be applied to the corridor, and performed a preliminary evaluation of their suitability based on feasibility for construction (e.g. can the concept fit within existing right-of-way?), and suitability for the issues at that location (e.g. will the concept reduce the queues that cause crashes?).

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OUTCOME

Village staff concluded its review of the Burns & McDonnell list of feasible concepts and selected the following to be considered as a phased-in approach to recommend to the Village Board:

- Make Gottschalk Avenue a dead end street, at the north side of 183rd, or make Gottschalk one-way northbound from 183rd to Olive Road (pending Gottschalk's residents input) [Estimated cost TBD]
- Pilot Road Diet – Riegel Road to Morgan Street. If successful, permanently re-stripe 183rd from Morgan Street to Riegel Road. [Permanent re-stripe \$107,000 – \$515,000]
- Develop Phase One engineering for installation of a traffic signal at Center Street, and seek funding through grant programs. [Estimated cost \$94,101]
- Park Avenue – Install lane delineators to allow left turns from 183rd onto Park Avenue, but prevent left turns from Park Avenue onto 183rd, and right turns only onto 183rd from Park Avenue. [Estimated cost \$20,000]

The Village Board considered and approved a phased approach for modifying traffic movements affecting 183rd Street traffic at Park Avenue, and the Pilot Road Diet, based on the Burns & McDonnell Traffic Study and Public Works staff recommendations.

Results since the Village Board's approved phased approach:

Pilot Road Diet – Riegel Road to Morgan Street. Temporarily reduce 183rd to one lane for westbound traffic and one lane eastbound with a center turn lane from Riegel to Halsted. Before the lane changes were made, Public Works held two open house meetings for 183rd residents to explain the pilot program. Public Works changed the traffic pattern on May 16, 2022 and continued this for two weeks. The first morning after the change, we observed traffic backed up from Aberdeen to Loomis, so we made minor adjustments to the traffic configuration near Aberdeen to accommodate school bus traffic, and made an adjustment at Morgan. Once this adjustment was made, the longest back up observed was from Aberdeen to Center Ave (one block) and was just for a brief time.

From the traffic counts and speed of vehicles taken before and after the pilot, we saw a reduction in speed of travel from an average of 35-40mph to 25-35mph; we saw a significant reduction in vehicles traveling over 45mph.

Traffic volumes for westbound traffic stayed almost the same, and traffic for eastbound traffic did not decrease significantly during morning peak periods, but did during afternoon peak periods, on an average of 60-100 vehicles. This traffic primarily diverted to Ridge Road and 187th where we saw traffic volume increase on Ridge by an average of 67-105 vehicles per hour, and we saw traffic volume increase on 187th by an average of 15-50 vehicles per hour. We also saw a significant reduction in vehicles traveling over 45mph.

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Staff spoke with the school crossing guards at 183rd Street and Aberdeen Street, and they felt it was much safer and easier to cross the students at the intersection during the pilot program. The parents who drop their children off at school seemed to have adapted to the new configuration well. The Superintendent of Homewood School District 153 also commented that he felt the road diet was very successful and had positive results.

Public Works held two open house meetings after the Pilot Road Diet was completed to report the results to the residents and to receive feedback from the residents along 183rd Street from Riegel to Halsted. Overall, the majority of the residents who attended the open houses were in favor of permanently re-striping 183rd from a two-lane road in each direction, to a single-lane in each direction, with a center left turn lane and painted bike lane along the curb.

Gottschalk Avenue at 183rd Street - Public works proposed to either make Gottschalk Avenue a dead end street at the north side of 183rd Street, or make Gottschalk Avenue a one-way street northbound from 183rd Street to Olive Road (pending Gottschalk residents' input). Before the changes were made, Public Works held two open house meetings to explain the pilot's temporary closure and the reasoning behind the program to the neighborhood residents. The neighborhood residents had concerns about the effects that these closures would have on the nearby streets. Public Works informed the residents that the traffic/speed data would be collected before and during the pilot to see what the effects would be, and once we had this information, we would share our findings with the residents. Public works closed Gottschalk at 183rd for two weeks, and collected the traffic data on the following streets:

Gottschalk Avenue from 183rd Street to Hickory Road

Highland Avenue from 183rd Street to Ridge Road

Olive Road from Gottschalk Avenue to Highland Avenue

Sycamore Avenue from Gottschalk Avenue to Highland Avenue

Homewood Avenue was not able to be collected (we only had four traffic counters)

We found that traffic increased on Olive Road, but we did not see any significant increase on the other streets, with the exception of Homewood Avenue because we were not able to collect data on this street. We also saw a reduction in traffic volume on Gottschalk Avenue.

Public Works held two open house meetings after the Pilot Road closure was completed to report the results to the residents and to receive feedback from the residents. The majority of the residents on Gottschalk who attended the meetings are in favor of the closure, but the majority of the residents of the surrounding streets who attended the meetings are not in favor of the closure.

Park Avenue - Install lane delineators to allow left turns from 183rd Street onto Park Avenue, but prevent left turns from Park Avenue onto 183rd Street, and right turns only onto 183rd Street from Park Avenue.

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Per the Village Board's direction, this was completed, and we have received numerous calls and emails thanking the Village for this work.

183rd Street & Center Avenue - Develop Phase One engineering for installation a traffic signal at Center Street, and seek funding through grant programs to complete plans and construction. This will be discussed in a separate item for Village Board consideration.

FUNDING:

The estimated cost for the construction of the bike lane (re-striping) is \$241,000. To cover the cost of this work, the Village completed and submitted an Illinois Transportation Enhancement Program (ITEP) application in September 2022. The 2022 ITEP application submission period closed on September 30, 2022. The ITEP review and selection process occurs from October 2022 through to April 2023, with the announcement of selected projects occurring in Spring of 2023. The Village is fully dependent on the awarding of this grant funding to complete the 183rd Street improvements.

Future maintenance costs of \$34,000 every other year would be required to maintain the striping and bike lane. If the Village is unsuccessful in receiving the ITEP grant funding, it will be extremely difficult to implement this lane configuration. In addition, with no definitive solutions for the closure of Gottschalk Avenue, we are not able to estimate the costs until other possible solutions are properly vetted.

STAFF RECOMMENDATION

Staff recommends the Village Board approve the 183rd Street bike lane reconfiguration project with the understanding that the project cannot be implemented until construction dollars are identified. The project consist of the re-striping of 183rd Street from Morgan Avenue to Dixie Highway based on the results of the Pilot Road Study conducted in May 2022. The project, when completed, will reduce the current two lane (both westbound and eastbound) traffic configuration into a single-lane westbound with a bike lane and a single-lane eastbound with a bike lane, with the incorporation of a center left turn lane.

FINANCIAL IMPACT

- **Funding Source:** ITEP Grant
- **Budgeted Amount:** Village required percentage match not covered by ITEP Grant - *(ITEP covers up to 80 percent of the cost related to preliminary engineering, utility relocations, construction engineering and construction costs.)*

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LEGAL REVIEW

Not Required

RECOMMENDED BOARD ACTION

Approve the 183rd Street bike lane reconfiguration concept subject to available funding.

ATTACHMENT(S)

Road Diet Configurations