City of Naperville



Legislation Details (With Text)

File #: 22-1188 **Version**: 1

Type: Report Status: Agenda Ready

File created: 9/29/2022 In control: Transportation Advisory Board

On agenda: 10/6/2022 Final action: 10/6/2022

Title: Receive Staff's Evaluation of Traffic Concerns on Gartner Road between Washington Street and

Charles Avenue

Sponsors:

Indexes:

Code sections:

Attachments: 1. Gartner Road Speed Data, 2. Banded Speed Limit Sign Locations, 3. 25 MPH Pavement Marking

Locations, 4. Parking Box Locations, 5. Marked Choker, 6. MUTCD Multi-Way Stop Application

Date Ver. Action By Action Result

10/6/2022 1 Transportation Advisory Board received

TRANSPORTATION ADVISORY BOARD AGENDA ITEM

ACTION REQUESTED:

Receive Staff's Evaluation of Traffic Concerns on Gartner Road between Washington Street and Charles Avenue

DEPARTMENT: Transportation, Engineering and Development

SUBMITTED BY: Michael Prousa, TED Project Manager

BACKGROUND:

In August of 2022, residents reached out to the Transportation, Engineering and Development (TED) Department with concerns regarding speeding on Gartner Road between Washington Street and Charles Avenue. Along with speeding, residents also wanted an all-way stop sign at Gartner Road and Julian Street. Residents from the area attended the September Transportation Advisory Board (TAB) Meeting to express their concerns about this stretch of Gartner Road and TAB requested that staff's findings and recommendations be presented at the October TAB meeting.

Currently, Gartner Road currently has multiple locations where staff rotates use of our Driver Feedback Signs (displays approaching vehicle's speed) throughout the year.

DISCUSSION:

TED Staff conducted a speed and volume study at four locations on Gartner Road between Washington Street and Charles Avenue:

- Gartner Road between Edgewater Drive and Driftwood Court
- Gartner Road between Driftwood Court and Julian Street
- Gartner Road between Julian Street and Watercress Drive

Gartner Road between Whirlaway Avenue and Charles Avenue

When reviewing speed data on a street, the 85th percentile speed is the primary consideration. Per the Institute of Transportation Engineers, the 85th percentile speed the speed at which 85 percent of free-flowing vehicles are traveling at or below. Use of the 85th percentile speed is based on the theory that the large majority of drivers are reasonable and prudent, do not want to have a crash, and desire to reach their destination in the shortest time possible.

The City's Master Thoroughfare Plan classifies streets based upon their function, access, and connectivity. Gartner Road is classified as a Collector (connect local and Neighborhood Connector through or adjacent to multiple neighborhoods and have continuity between arterial streets). The City has been collecting annual speed and volume data on about 30-40 segments of road for the past 20 years. With this data, staff has established typical speeds and volumes for most road classifications. Our table of the city-wide typical speeds and volumes are listed below.

		City-wide Typical Weekday Volume (Two-way)
Collector	29 - 34 mph	5,000 - 12,000 vpd
Neighborhood Connector	29 - 34 mph	500 - 5,000 vpd
Local	27 - 32 mph	0 - 1,500 vpd

The table below details the speed and volume data collected at each location on Gartner Road. See attachment 1 for a map showing the speed data locations.

Gartner Road between Edgewater Drive and Driftwood Court		
Eastbound 85 th Percentile Speed	34 mph	
Westbound 85 th Percentile Speed	35 mph	
Vehicles per day	6,000	

Gartner Road between Driftwood Court and Julian Street		
Eastbound 85 th Percentile Speed	32 mph	
Westbound 85 th Percentile Speed	31 mph	
Vehicles per day	6,000	

Gartner Road between Julian Street and Watercress Drive		
Eastbound 85 th Percentile Speed	33 mph	
Westbound 85 th Percentile Speed	30 mph	
Vehicles per day	3,750	

Gartner Road between Whirlaway Avenue and Charles Avenue		
Eastbound 85 th Percentile Speed	29 mph	
Westbound 85 th Percentile Speed	35 mph	
Vehicles per day	3,650	

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The tables show that Gartner Road between Edgewater Drive and Driftwood Court and Gartner Road between Whirlaway Avenue and Charles Avenue have speeds above our typical thresholds for a Collector Street.

When looking at tools that can be used to slow vehicles down, the City uses the Traffic Calming Toolkit. Based on the data collected and the applicable toolkit options, City staff recommends several changes to Gartner Road that will be applied this year and next year, these changes are listed below.

- Yellow Banding the 25 mph speed limit signs on Gartner Road leaving Washington Street, Charles Avenue, Olesen Drive, and Naper Boulevard. (See attachment 2).
- Installing the "25 MPH" pavement marking on Gartner Road leaving Washington Street for eastbound traffic and leaving Naper Boulevard for westbound traffic. (See attachment 3).
- Installing marked parking boxes on Gartner Road between Julian Street and Charles Avenue. (See attachment 4).
- Installing a marked choker on Gartner Road between Edgewater Drive and Driftwood Court. (See attachment 5).

Along with these new changes, staff will continue installing the Driver Feedback Signs (displays approaching vehicle's speed) on a rotating basis throughout the year and the Naperville Police Department will continue enforcing the area for speeding violations.

City staff also reviewed Gartner Road and Julian Street for all-way stop control. Gartner Road is a Collector Street which according to Section 11-1-4 of the City's Municipal Code, "The placement and erection of all-way stop signs at intersections involving collector and arterial streets, as identified in the City's master thoroughfare plan, shall conform with the regular MUTCD warrant."

The Multi-Way Stop Application in Section 2B.07 of the MUTCD looks at crash history, vehicle volumes, bicycle and pedestrian volumes, and travel speeds to determine if an all-way stop sign is warranted. The Multi-Way Stop Application with Gartner Road and Julian Street data can be found in attachment 6. Based upon the data and analysis, Gartner Road and Julian Street did not meet the thresholds in the MUTCD for consideration of an all-way stop.

Stop signs are used to assign right of way control and not to prevent speeding. Drivers typically go faster in between stop signs to make up for lost time. Unwarranted stop signs also create stop compliance issues because of the lack of conflict with vehicles.

TAB also asked staff to look at the intersection of Gartner Road and Edgewater Drive along with DuPage River Trail Crossing. With Fall weather now upon us, staff will collect bicycle and pedestrian trail counts in the Spring when more trial use is expected. When that occurs, staff will bring a report with findings to TAB.