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MEMORANDUM

Date: November 14, 2018

To: Sean Halloran
Assistant to the Village Manager
Village of Glenview

DRAFT

From: Thomas Adomshick, P.E., PTOE
President

Re: West Lake Avenue Parking Limits at Poppy Lane
Glenview, Illinois
Job No. 1394.149

West Lake Avenue between Patriot Boulevard and Lehigh Avenue was resurfaced and re-stripped this summer. Subsequent to the project completion, some residents of the Cambridge residential development have expressed concerns about sight lines for drivers turning from Poppy Lane due to the location of vehicles parked in the westbound West Lake Avenue parking lane. James J. Benes and Associates were retained by the Village of Glenview to evaluate the current parking limits on the westbound parking lane at Poppy Lane.

West Lake Avenue is a two-lane two-way collector street. It abuts the Cambridge residential neighborhood to the north, and Gallery Park to the south. This area was designed as a neo-traditional dense urban development. The North Glen commuter rail station and a mixed use commercial development are just east of this study section. Separate parallel parking lanes are provided on both sides of the street. The posted speed limit is 25 miles per hour (mph). There is a marked crosswalk on the west leg of West Lake Avenue at Poppy Lane.

When this section of West Lake Avenue was resurfaced this summer, the parking limits at the intersection with Poppy Lane were re-marked and the pre-resurfacing parking limits on the approaches to the intersection were retained.

The limits of on-street parking affect the number of vehicles that can park on street, and also affect sight distance for vehicles turning from Poppy Lane to West Lake Avenue. Maximizing parking and sight lines are competing goals, and a balance between the two interests needs to be determined.

The **Illinois Vehicle Code (IVC)** establishes the minimum distance that a vehicle can park from an intersection. The IVC guidelines are frequently used in residential neighborhoods, particularly dense urban neighborhoods where off street parking is limited, on-street parking is desirable and vehicular speeds are lower. The character of this portion of the Cambridge neighborhood is consistent with that where the IVC is normally applied.

A Policy on the Geometric Design of Highways and Streets published by the American Association of State Highway and Transportation Officials (AASHTO) provides guidelines for determining stopping sight distance (SSD) which can be considered when evaluating sight lines at intersections. The SSD guidelines provide sufficient distance for a driver on the through street to perceive a stationary object on the road, react to the situation and bring his/her vehicle to a complete stop before colliding with the

object. We evaluated parking restriction limits needed based on clear sight lines needed for the driver of a vehicle stopped on Poppy Lane with the driver located 14.5 feet from the edge of the adjacent West Lake Avenue travel lane. The driver setback distance conforms to the AASHTO guidelines, and is the standard accepted practice.

The existing pavement markings along westbound West Lake Avenue were evaluated and the impacts of modifying the pavement marking to match the IVC requirements or AASHTO stopping sight distance guidelines. The SSD guidelines were evaluated for design speeds of 25 and 30 mph. The results are tabulated below and illustrated in the aerial exhibit below.

West Lake Avenue North Side Parking Limit Options at Poppy Lane					
		Existing Condition	IVC Minimum	SSD	
				25 mph	30 mph
West of Poppy	Distance beyond IVC Minimum	7'	20' from X-walk	22'	22'
	Change in parking supply	n/a	0	-1	-1
	Total parking	16	16	15	15
East of Poppy	Distance beyond IVC Minimum	32'	PC	54'	82'
	Change in parking supply	n/a	+1	-1	-2
	Total parking	7	8	6	5

PC = corner radius point of edge of pavement on West Lake Avenue at the intersection corner. The IVC may allow parking along the intersection corner radius; however we do not recommend allowing parking any closer to Poppy Lane than the corner PC on West Lake.



We note the following regarding the sight distance analysis and findings:

- Under the Illinois Rules of the Road, drivers are required to stop at the stop line when approaching an intersection on a stop sign controlled approach and, after stopping are to proceed to a point nearest the intersection roadway where the driver has a view of approaching traffic on the intersecting roadway before entering the intersection. The AASHTO guidelines establish the driver location at 14.5 feet from the edge of nearest travel lane.
- Application of the AASHTO guidelines would increase driver comfort when turning from Poppy Lane onto West Lake Avenue in comparison to the IVC minimum requirements and to the current parking restrictions.
- Due to the curvature of West Lake Avenue west of Poppy Lane, the necessary parking limits for 25 mph and 30 mph SSD are all equal.
- The Glenview Police Department researched crash records on West Lake Avenue going back 14 years to 2004, about the time when the developments along Lehigh were complete and occupied. No records of crashes were found during the entire period at any of the five intersections. This suggests that the intersections operated satisfactorily with low risk to drivers and pedestrians under both the pre 2008 and current striped parking regulations.
- If a crosswalk is added on the east leg of the intersection at a future date, the existing parking limits would remain in compliance with the IVC.

Conclusion

The Illinois Vehicle Code minimum requirements and the AASHTO stopping sight distance guidelines are acceptable methods of establishing parking limits at this location. The existing parking setbacks along West Lake Avenue meet the minimum distances specified in the Illinois Vehicle Code. There have been no recorded crashes at the West Lake/Poppy intersection since the area was built. The decision to increase the parking setbacks from Poppy Lane on the north side of West Lake Avenue is a policy decision, provided that any changes follow accepted engineering practice.

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