

MEMORANDUM TO: Chris Funkhouser
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FROM: Brendan S. May, PE, PTOE
Principal

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DATE: May 16, 2025

SUBJECT: Traffic Impact Statement
Proposed Townhome Development
Warrenville, Illinois

This memorandum summarizes the results and findings of a Traffic Impact Statement prepared by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for a proposed townhome development to be located in Warrenville, Illinois. The 9.44-acre site is located in the northwest corner of the intersection of Warrenville Road with Ferry Road/Mill Street and is proposed to contain 91 townhomes and a total of 400 parking spaces. Access is proposed to be provided via Maecliff Drive which has a full movement intersection with Ferry Road and a right-in/right-out intersection with Warrenville Road.

The purpose of this memorandum is to summarize the existing roadway conditions, estimate the volume of traffic that will be generated by the residential development, and to review the access system. **Figure 1** shows an aerial view of the site.

Existing Roadway Characteristics

Warrenville Road (DuPage County Route 3) is generally an east-west minor arterial roadway that in the vicinity of the site provides two travel lanes in each direction. Warrenville Road has a signalized intersection with Ferry Road and Mill Street in which Warrenville Road creates the north and east legs of the intersection. Both legs provide an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. At its unsignalized intersection with Maecliff Drive/Lorraine Avenue, Warrenville Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the eastbound approach, and through lane and a shared through/right-turn lane on the westbound approach. Warrenville Road is under the jurisdiction of the DuPage County Division of Transportation (DuDOT), carries an Annual Average Daily Traffic (AADT) volume of 6,400 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour.



Aerial View of Site

Figure 1

Ferry Road (DuPage County Route 3) is generally an east-west minor arterial roadway that provides two travel lanes in each direction and extends west from its signalized intersection with Warrenville Road and Mill Street. At the signalized intersection, Ferry Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane. At its unsignalized intersection with Maecliff Drive/Cantera Drive, Ferry Road provides an exclusive left-turn lane, two through lanes, and an exclusive right-turn lane on the eastbound and westbound approaches. Ferry Road is under the jurisdiction of DuDOT, carries an Annual Average Daily Traffic (AADT) volume of 5,450 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour.

Mill Street (DuPage County Route 32) is a north-south minor arterial roadway that provides two travel lanes in each direction and extends south from its signalized intersection with Warrenville Road and Ferry Road. At the signalized intersection, Mill Street provides an exclusive left-turn lane, two exclusive through lanes, and an exclusive right-turn lane. Mill Street is under the jurisdiction of DuDOT, carries an Annual Average Daily Traffic (AADT) volume of 6,000 vehicles (IDOT 2020), and has a posted speed limit of 40 miles per hour.

Maecliff Drive is generally a north-south local roadway that provides a single travel lane in each direction. At its intersection with Warrenville Road, Maecliff Drive provides a single northbound travel lane that is under stop sign control and restricted to right-turning movements via a raised triangular median, striping, and signage. At its intersection with Ferry Road, Maecliff Drive provides a single southbound lane that is under stop sign control. The south leg of the intersection is Cantera Drive which provides an exclusive left-turn lane and a shared through/right-turn lane that are under stop-sign control. Maecliff Drive is a private roadway and has a posted speed limit of 25 miles per hour.

Peak Hour Traffic Volumes

As discussed above, the residential development is to consist of 102 townhomes. The volume of peak hour trips estimated to be generated by the proposed development was based on “Single-Family Attached Housing” (Land-Use Code 215) vehicle trip generation rates contained in *Trip Generation Manual*, 11th Edition, published by the Institute of Transportation Engineers (ITE). **Table 1** summarizes the trips projected to be generated by the proposed development during the weekday morning and weekday evening peak hours as well as on a daily basis.

Table 1
ESTIMATED PEAK HOUR TRIP GENERATION

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
215	Single-Family Attached Housing (91 units)	10	32	42	30	21	51	322	322	644

Trip Generation Comparison

The volume of traffic anticipated to be generated by the proposed development was compared to the trips estimated to be generated by the previously approved office space for the site which totaled 125,000 square feet in size. The trips estimated to be generated by the office space was also based on information published in the ITE *Trip Generation Manual*, 11th Edition utilizing General Office (Land-Use Code 710) trip generation rates. **Table 2** summarizes the results of the trip generation comparison. As can be seen from Table 2, the proposed townhome development is projected to generate approximately 80 percent and 75 percent less traffic during the weekday morning and weekday evening peak hours, respectively, and approximately 55 percent less traffic daily.

Table 2
TRIP GENERATION COMPARISON

ITE Land-Use Code	Type/Size	Weekday Morning Peak Hour			Weekday Evening Peak Hour			Daily Trips		
		In	Out	Total	In	Out	Total	In	Out	Total
215	Single-Family Attached Housing (91 units)	10	32	42	30	21	51	322	322	644
710	General Office (125,000 s.f.)	<u>178</u>	<u>25</u>	<u>203</u>	<u>34</u>	<u>166</u>	<u>200</u>	<u>705</u>	<u>705</u>	<u>1,410</u>
	Difference	-168	7	-161	-4	-145	-149	-383	-383	-766

Traffic Evaluation

When the projected traffic that will be generated by the proposed development is compared to the traffic on the adjacent roadway system, the proposed development will not have a significant impact due to the following:

- The proposed development will generate low volumes of traffic during the peak hour, averaging approximately one trip per minute.
- The proposed development will generate significantly less traffic than the previously approved office development and as such will have lower impact on area roadways.
- Access to the development will be provided via two existing intersections which will distribute site generated traffic through the study area intersections and minimize the volume of traffic traversing a single intersection.
- Ferry Road and Warrenville Road at their respective intersections with Maecliff Drive provide exclusive turn lanes for all available movements.

- The daily traffic on Warrenville Road, Ferry Road, and Mill Street is only projected to increase by approximately three percent.

Site Access

Access to the residential development is to be provided via connections to Maecliff Drive and its intersections with Warrenville Road and Ferry Road. As previously indicated, The Maecliff Drive approach to Warrenville Road is restricted to right-turning movements only, whereas the Maecliff Drive approach to Ferry Road allows for full turning movements. Having access to the development via both intersections will promote site access flexibility due to the following:

- Traffic exiting the site to east towards the intersection of Warrenville Road with Ferry Road/Mill Street can do so by making a right-turn from Maecliff Drive onto Warrenville Road, thus limiting the volume of southbound left-turn movements at the intersection of Maecliff Drive with Ferry Road.
- Traffic entering the site from the east traverse the signalized intersection of Warrenville Road with Ferry Road/Mill Street, thus allowing vehicles to utilize westbound Ferry Road to access the development.
- Both Ferry Road and Warrenville Road have signalized intersections with Winfield Road to the west. Therefore, traffic exiting the site to access Winfield Road can do so by making the southbound right-turn onto Ferry Road to access northbound Winfield Road.

It should be noted that the traffic generated by the residential development itself would not warrant the provision of a traffic signal at the intersection of Ferry Road with Maecliff Road based on the peak hour warrant criteria (Warrant 3) published in the Manual on Uniform Traffic Control Devices. The minimum volume required for the minor street approach for the peak hour warrant is 75 vehicles. Furthermore, a traffic signal at this location is not recommended or necessary due to the following:

- Southbound left-turn movements from Maecliff Road onto Ferry Road are limited given that vehicles can make the northbound right-turn movement from Maecliff Road onto Warrenville to travel to the east towards the signalized intersection of Warrenville Road with Ferry Road/Mill Street.
- The office and hospitality land-uses located to the south of the subject development are already provided with signalized access to Ferry Road and Mill Street via Bella Vista Parkway.
- The signal would provide less than acceptable traffic signal spacing (1,000 feet) to the adjacent traffic signals along Ferry Road.

Parking Evaluation

As previously indicated, a total of 400 parking spaces will be provided for the 91 units, resulting in a parking ratio of 4.40 spaces per unit. The 400 parking spaces consists of 182 garage spaces, 182 driveway spaces, and 36 guest parking spaces. This translates to a ratio of approximately four resident spaces per unit and 0.40 guest spaces per unit. The City of Warrenville Code of Ordinances indicates that multi-family residential developments are required to provide one parking space per bedroom. With 76 three-bedroom units and 15 two-bedroom units, a total of 258 parking spaces will be required. Furthermore, the Cantera Development Control Regulations indicates that three-bedroom multifamily housing units are required to provide four parking spaces per unit while two-bedroom units are required to provide three space per unit. Therefore, the proposed development is required to provide 349 parking spaces. As such, the proposed 400 parking spaces exceed both the City Code and Cantera Development Code Regulations and will be adequate in accommodating the parking demand for the development.

Conclusion

Based on the proposed plan and the preceding evaluation, the following is concluded:

- The traffic that will be generated by the proposed development will be low.
- The proposed development generated traffic will not have a significant impact on area roadways, as it is projected to increase traffic by approximately three percent daily.
- The proposed development is projected to generate approximately 75 percent less peak hour trips and 50 percent fewer daily trips than the previously approved 125,000 square foot office space.
- Access to the proposed development will be provided off Maecliff Drive and its intersections with Warrenville Road and Ferry Road.
- The proposed access system will be adequate in accommodating the proposed development-generated traffic and will provide enhanced site access flexibility.
- The traffic generated by the proposed development itself will not warrant the provision of a traffic signal at the intersection of Ferry Road with Maecliff Drive/Cantera Drive.
- A traffic signal is not recommended at the intersection of Ferry Road with Maecliff Drive/Cantera Drive given the site access flexibility, the existing signalized access to Ferry Road and Mill Street for the land-uses to the south and given the spacing to the existing traffic signals along Ferry Road to the west and east.
- The 400 proposed parking spaces will meet the City of Warrenville Code and Cantera Development Control Regulations.

Appendix