

MEMORANDUM TO: Steve Goodman  
Fidelity Wes

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DATE: September 2, 2015

SUBJECT: Traffic Impact Statement  
Proposed Karen's Corner of Long Grove Residential Development  
Long Grove, Illinois

This memorandum summarizes a trip generation and site access evaluation conducted by Kenig, Lindgren, O'Hara, Aboona, Inc. (KLOA, Inc.) for the proposed Karen's Corner of Long Grove residential development to be located in the northwest quadrant of the intersection of Old Hicks Road and Checker Road in Long Grove, Illinois. The site is bounded by undeveloped land to the north and south, the proposed IL-53 Extension right-of-way to the west, and the Long Grove Country School and Old Hicks Road to the east. **Figure 1** shows the location of the site with respect to the surrounding area.

The development proposes a total of approximately 44 residential units, of which 14 units are single-family homes and 30 units are single-family attached homes. Access to the development is proposed from two access roadways off Old Hicks Road.

### Existing Conditions

The following provides a detailed description of the physical characteristics of the existing roadway system.

*Old Hicks Road* is a two-lane north-south collector roadway with no shoulder and extends from its stop sign controlled T-intersection at IL 53 to the north to its stop sign controlled intersection with Checker Road to the south. The posted speed limit of 30 mph, and parking is prohibited on both sides of the roadway. Old Hicks Road is under the jurisdiction of the Village of Long Grove. At its intersection with IL 53, a posted sign prohibits through traffic on southbound Old Hicks Road. This roadway primarily provides access to the residential subdivisions in the area and the Long Grove Country School, which is a private school providing education for Kindergarten and below age levels.



**Aerial View of Site Location**

**Figure 1**

*Bayberry Lane* is a two-way east-west residential roadway that T-intersects Old Hicks Road from the east and is under stop sign control. The posted speed limit is 25 mph, and parking is prohibited on both sides of the street. Bayberry Lane is under the jurisdiction of the Village of Long Grove.

*Checker Road* is an east-west collector roadway that extends from its stop sign controlled intersection with Old Hicks Road to the west to Buffalo Grove Road to the east. In the vicinity of the site, Checker Road provides one lane in each direction and the posted speed limit is 30 mph. Parking is prohibited on both sides of the roadway. Checker Road is under the jurisdiction of the Village of Long Grove.

### **Proposed Development Plan**

The plans for the proposed residential development call for the approximate 35-acre site to be developed into two areas. The northerly area will consist of approximately 14 single-family homes. The southerly area will consist of approximately 30 single-family attached homes. No internal roadway cross-access will be provided between the two residential areas. Each residential type will have its own access off Old Hicks Road.

### **Development Access**

Two access roadways off Old Hicks Road are proposed to serve the development and are described below.

*Bayberry Court and Old Hicks Road.* This northerly access roadway will intersect Old Hicks Road in alignment with Bayberry Lane, becoming the fourth/west leg of this existing T-intersection. Bayberry Court will only provide access to the proposed 14 single-family homes and will have one lane in each direction. At its intersection with Old Hicks Road, Bayberry Court will provide one lane inbound and one lane outbound under stop sign control. Given the estimated low volume of traffic to be generated by this development, as noted later, no roadway or traffic control improvements on Old Hicks Road are recommended or needed.

*Karen's Court and Old Hicks Road.* This southerly access roadway will T-intersect Old Hicks Road approximately 160 feet north of Checker Road and will provide one lane inbound and two lanes outbound striped to provide a left-turn and a right-turn lane. The outbound lanes will be under stop sign control. Karen's Court will only provide access to the single-family attached homes and will not provide access to the single-family detached homes at the northerly end of the development. Given the estimated low volume of traffic to be generated by this development, as noted later, no roadway or traffic control improvements on Old Hicks Road are recommended or needed.

### Development Traffic Generation

The estimates of traffic to be generated by the overall site are based upon the proposed land use types and number of respective units. The volume of traffic generated by the subject development was estimated using data published in the Institute of Transportation Engineers (ITE) report, *Trip Generation*, 9<sup>th</sup> Edition.

The total trips anticipated with this development are detailed in **Table 1** for the weekday morning and weekday evening peak hours, as well as the weekday daily two-way traffic volumes.

As shown in Table 1, the development will generate a very low volume of traffic during the weekday peak hours of adjacent roadway traffic. Therefore, this development will have a minimal impact on the surrounding roadway system.

Table 1  
ESTIMATED SITE-GENERATED TRAFFIC VOLUMES

Land Use Type/Density	Weekday A.M. Peak Hour			Weekday P.M. Peak Hour			Weekday (24 Hour) Total
	In	Out	Total	In	Out	Total	
Single-Family Detached LUC 210 – 14 units	5	15	20	11	7	18	172
Single-Family Attached- LUC 230 – 30 units	<u>3</u>	<u>17</u>	<u>20</u>	<u>15</u>	<u>7</u>	<u>22</u>	<u>226</u>
<b>Total Development Trips:</b>	<b>8</b>	<b>32</b>	<b>40</b>	<b>26</b>	<b>14</b>	<b>40</b>	<b>398</b>

## Conclusion

Based on the preceding evaluation, the following conclusions are made.

- The development will generate a low volume of traffic. A total of 32 outbound vehicles and 26 inbound vehicles are estimated to be generated during the weekday morning and weekday evening peak hours, respectively. As a result, this development will not have a significant impact on area roadways.
- Both access roadways at their respective intersection with Old Hicks Road providing one inbound lane and one outbound lane should be adequate in accommodating the projected low volumes of peak hour traffic. Outbound movements should be under stop sign control at both intersections.
- No internal cross-connection will be provided between the single-family detached homes (northerly area) and the single-family attached homes (southerly area). As such, the volume of turning movements at each of the respective access roadways on Old Hicks Road will be low during the peak hour periods.
- The proposed location and design of the two access roadways on Old Hicks Road will be adequate in accommodating development traffic without negatively impacting traffic operations on Bayberry Lane, or at nearby intersections.
- No roadway or traffic control improvements are recommended or needed at the intersection of Old Hicks Road and Bayberry Lane/Bayberry Court. Further, the one lane inbound and one lane outbound on Bayberry Lane, the existing east leg of the intersection, will continue to be adequate.