

MEMORANDUM

To: Erik Nikkel – Casey’s Retail Company

From: Tim Sjogren, P.E., PTOE – Kimley-Horn
Ana Eisenman, P.E. – Kimley-Horn

Date: August 24, 2022

RE: Trip Generation Comparison
Casey’s Naperville, Illinois

INTRODUCTION

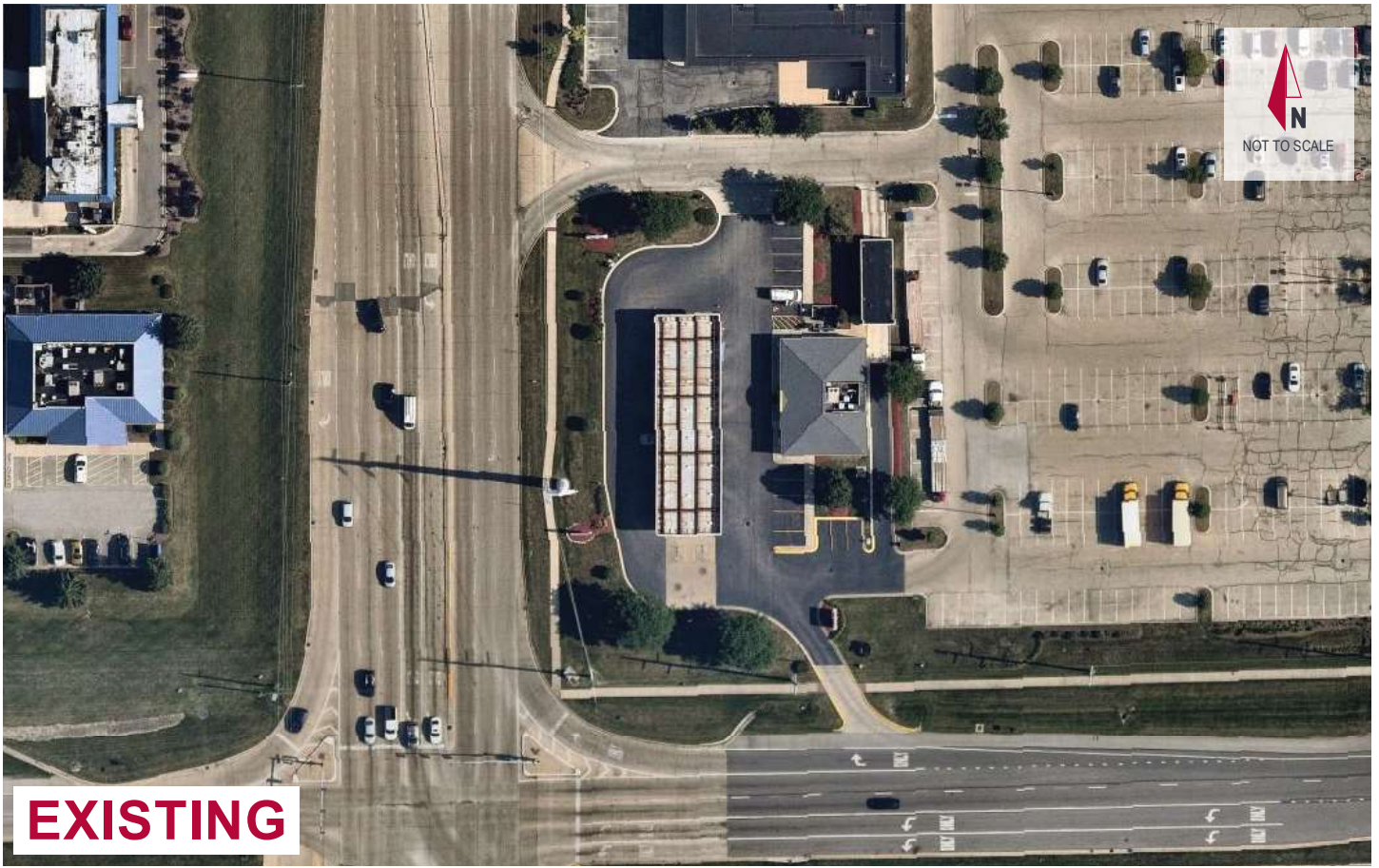
On behalf of Casey’s Retail Company, Kimley-Horn has prepared a trip generation comparison for the proposed Casey’s General Store to be located on the northeast quadrant of the signalized intersection of IL 59 and 75th Street in Naperville, Illinois. This memorandum outlines the comparison of trips generated for the proposed Casey’s General Store versus the existing gas station and convenience store currently on the site.

Existing Conditions

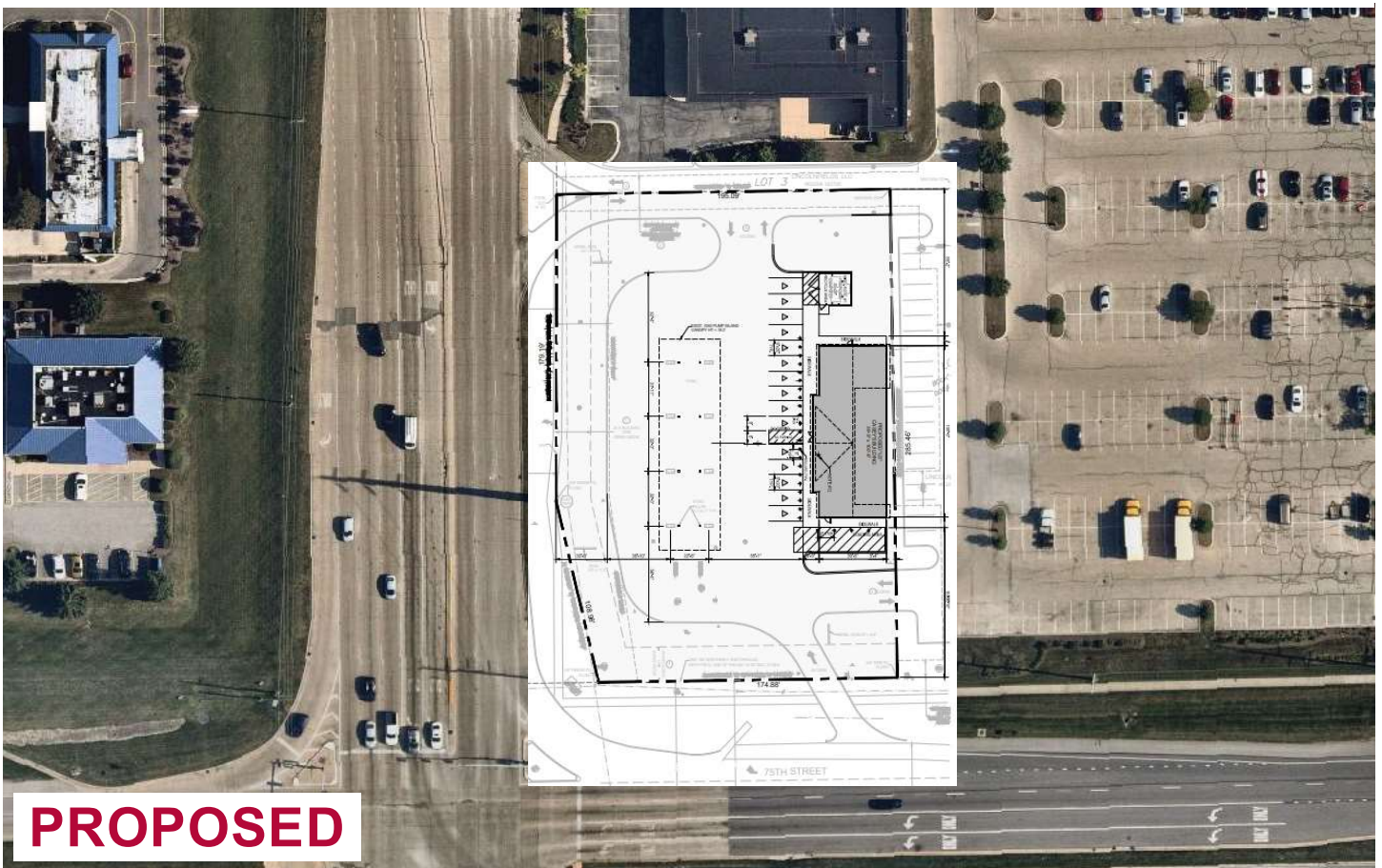
The existing gas station on the subject site includes 16 fueling positions, approximately 3,300 square feet (SF) of convenience market space, and a carwash. The site includes a right-in only access along 75th Street and a shared right-in / right-out access along IL 59. Additionally, one bidirectional internal access and one carwash exit-only access connect the gas station to the adjacent shopping center. An aerial of the existing site is included in **Exhibit 1**.

Proposed Casey’s General Store

The proposed Casey’s General Store includes 16 fueling positions and approximately 4,000 SF of convenience market space. The existing carwash (and exit driveway) would be removed to facilitate the reconstructed convenience market. No additional changes to the existing site accesses are anticipated. A proposed site plan is shown in **Exhibit 1** for comparison with the existing aerial of the site.



EXISTING



PROPOSED

TRIP GENERATION

Land-Use Determination

Land Use 945 (Convenience Store / Gas Station) and was reviewed to determine the appropriate trip generation estimates for both the existing and proposed conditions. It should be noted that with ITE’s Trip Generation 11th Edition manual, Land Use 960 (Super Convenience Market / Gas Station) no longer exists. Instead, ITE has moved that data under Land Use 945 and provided subcategory options to adjust gross floor area (GFA) and vehicle fueling positions (VFP).

For comparison, trip generation estimates are provided for the existing and proposed gas stations based on both the number of fueling positions and the square footage of convenience store gross floor area.

Trip Generation Estimates – Number of Fueling Positions

Trip generation is based on data contained within ITE’s Trip Generation 11th Edition manual and estimated by number of fueling positions for the Convenience Store / Gas Station land use (LUC 945). As the number of fueling positions will remain the same (16), **Table 1** shows the ITE-projected trip generation for both the existing and proposed facilities.

Table 1. Site-Generated Traffic Projections – Convenience Store / Gas Station¹

Land Use	Size	Daily	Weekday						Saturday		
			AM Peak Hour			PM Peak Hour			Midday Peak Hour		
			In	Out	Total	In	Out	Total	In	Out	Total
Convenience Store / Gas Station (LUC 945)	16 Fueling Positions	3,380	130	130	260	150	150	300	135	135	270
Net Site Trips		3,380	225	225	450	185	185	370	185	185	370

¹In/Out volumes are rounded to the nearest multiple of five.

Trip Generation Estimates – Gross Floor Area

Trip generation is based on data contained within ITE’s Trip Generation 11th Edition manual and estimated by SF of gross floor area (GFA) for the Convenience Store / Gas Station land use (LUC 945). As the existing convenience store is approximately 3,300 SF and the proposed is 4,000 SF, **Table 2** shows the ITE-projected trip generation comparison for the existing and proposed facilities.

Table 2. Site-Generated Traffic Projections – Super Convenience Market/Gas Station¹

Land Use	Size	Daily	Weekday						Saturday			
			AM Peak Hour			PM Peak Hour			Midday Peak Hour			
			In	Out	Total	In	Out	Total	In	Out	Total	
Existing	Convenience Store / Gas Station (LUC 945)	3,300 SF	2,400	95	95	190	90	90	180	105	105	210
Proposed	Convenience Store / Gas Station (LUC 945)	4,000 SF	2,800	115	115	230	110	110	220	130	130	260
Net Increase in Trips			400	20	20	40	20	20	40	25	25	50

¹In/Out volumes are rounded to the nearest multiple of five.

CONCLUSION

The proposed Casey’s General Store will replace the existing gas station and convenience market on the subject site. The redevelopment of the subject site will replace the existing 3,300 SF convenience market and carwash with a 4,000 SF convenience market. ITE trip generation estimates by number of fueling positions are the same for the existing and proposed sites. ITE trip generation estimates by GFA increase by 50 trips or less in each peak hour for the proposed site.

Based on ITE trip generation estimates, the increase in building footprint, and the removal of an on-site carwash, no meaningful changes to trip generation are anticipated from the existing gas station to the proposed Casey’s General Store.