

## MEMORANDUM

**DATE:** March 6, 2020  
**TO:** Brad Fry, P.E., Kwik Trip Store Engineering  
**FR:** Justin Schueler, P.E.  
**CC:** Bob Harley, P.E., raSmith  
**RE:** Pewaukee Road Kwik Trip Redevelopment (Store #527), Waukesha, WI  
 Trip Generation Comparison

Kwik Trip, Inc. is planning to replace their existing store located at 1700 Pewaukee Road in the City of Waukesha with a new, larger facility. All existing on-site structures will be demolished and the existing parcel will be combined with an undeveloped parcel (1720 Pewaukee Road) located immediately to the north to accommodate the larger development. The City of Waukesha has requested a trip generation comparison for the existing and proposed development. This memo summarizes the methodologies and results of this evaluation.

The redevelopment site is generally located in the northwest quadrant of the Pewaukee Road intersection with Gascoigne Drive as shown in [Exhibit 1](#). The existing store (3,520 square foot, SF) functions under the name ‘*Tobacco Outlet plus Grocery*’ but is owned and operated by Kwik Trip. It operates similar to other Kwik Trip stores in the area but with a smaller footprint, limited hot food sales, and a larger selection of tobacco products. The existing store also features gasoline fuel sales (8 vehicle fueling positions). The proposed new development will include a 7,200 SF Kwik Trip store and 20 vehicle fueling positions. The larger store will offer a full line of grocery, bakery, beverage, and hot-food products. Car wash and diesel fuel sales are not proposed. A preliminary site plan is provided in [Exhibit 2](#). Site access will be provided with two full-movement driveways on Pewaukee Road. The existing site access to Gascoigne Drive will be eliminated; reducing the overall site access points from three to two.

The Institute of Transportation Engineers (ITE) *Trip Generation Manual, 10th Edition*, was used to estimate development traffic. A trip generation comparison between the existing and proposed developments is summarized in Table 1. A full breakdown is provided in [Exhibit 3](#).

**Table 1**  
**Trip Generation Comparison**

Land Use	Peak Hour New Trips		
	AM	PM	SAT
EXISTING Store/Fuel Station	135	115	115
PROPOSED Kwik Trip Store/Fuel Station	340	280	275
<b>Change in New Trips</b>	<b>+205</b>	<b>+165</b>	<b>+160</b>


As shown in Table 1, the proposed Kwik Trip is expected to result in an increase of new trips as compared to the existing store. All development traffic will now access the site directly from Pewaukee Road. The redevelopment is estimated to result in a 5% to 10% increase in daily traffic along Pewaukee Road. Traffic along Gascoigne Drive is expected to be reduced significantly with the elimination of the site driveway to this roadway.



Note: Site boundaries are approximate.

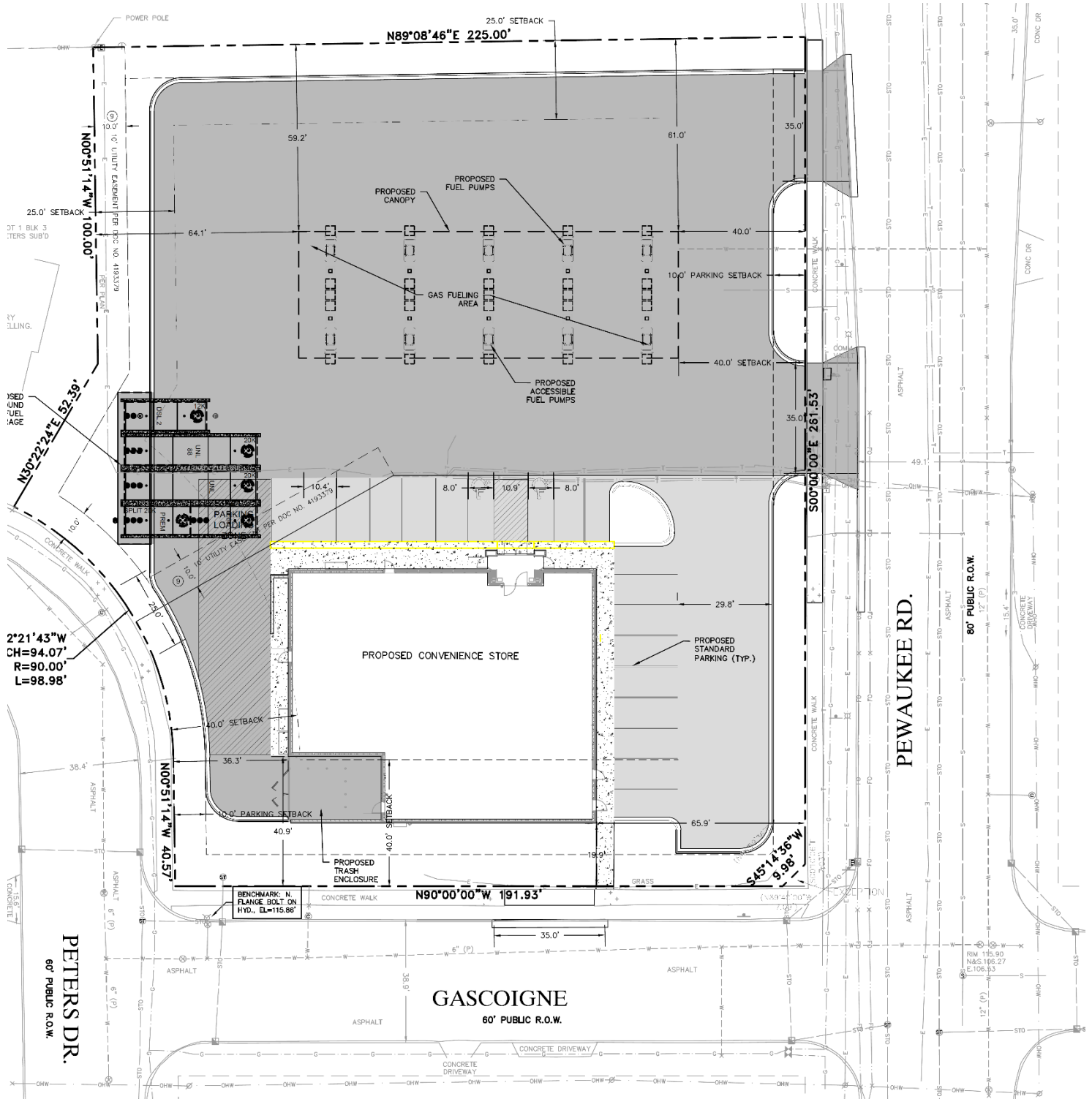
Image Source: Google Earth  
Image Date: March, 2018

**Legend**

 = Proposed Kwik Trip Redevelopment Site Boundaries

**Recent Site Aerial**

Exhibit  
**1**



**Pewaukee Road Kwik Trip (Store #527)  
Preliminary Redevelopment Site Plan**

### Existing Pewaukee Road Facility

Land Use	ITE Code	Size, units <sup>1</sup>	Weekday Daily Trips	Weekday AM Peak Hour Trips (rate)			Weekday PM Peak Hour Trips (rate)			Weekend SAT Peak Hour Trips (rate)		
				In	Out	Total	In	Out	Total	In	Out	Total
Super Convenience Market/Gas Station	960	8 VFP	1,845 (230.52)	115 (50%)	110 (50%)	225 (28.08)	95 (50%)	90 (50%)	185 (22.96)	95 (50%)	90 (50%)	185 (23.26)
<i>Pass-by/Diverted Linked Trips (-40%)</i>			<i>(740)</i>	<i>(45)</i>	<i>(45)</i>	<i>(90)</i>	<i>(35)</i>	<i>(35)</i>	<i>(70)</i>	<i>(35)</i>	<i>(35)</i>	<i>(70)</i>
<b>New Trips</b>			<b>1,105</b>	<b>70</b>	<b>65</b>	<b>135</b>	<b>60</b>	<b>55</b>	<b>115</b>	<b>60</b>	<b>55</b>	<b>115</b>

1) VFP = Vehicle Fueling Positions

### Proposed Pewaukee Road Kwik Trip

Land Use	ITE Code	Size, units <sup>1</sup>	Weekday Daily Trips	Weekday AM Peak Hour Trips (rate)			Weekday PM Peak Hour Trips (rate)			Weekend SAT Peak Hour Trips (rate)		
				In	Out	Total	In	Out	Total	In	Out	Total
Super Convenience Market/Gas Station	960	20 VFP	4,610 (230.52)	280 (50%)	280 (50%)	560 (28.08)	230 (50%)	230 (50%)	460 (22.96)	235 (50%)	230 (50%)	465 (23.26)
<i>Pass-by/Diverted Linked Trips (-40%)</i>			<i>(1,845)</i>	<i>(110)</i>	<i>(110)</i>	<i>(220)</i>	<i>(90)</i>	<i>(90)</i>	<i>(180)</i>	<i>(95)</i>	<i>(95)</i>	<i>(190)</i>
<b>New Trips</b>			<b>2,765</b>	<b>170</b>	<b>170</b>	<b>340</b>	<b>140</b>	<b>140</b>	<b>280</b>	<b>140</b>	<b>135</b>	<b>275</b>

1) VFP = Vehicle Fueling Positions