

January 2, 2018

Mr. Benton Benalcazar  
4741 Tussic Street Rd.  
Westerville, OH 43082

**Re: Benalcazar Property**  
Genoa Township, Delaware County, Ohio

Dear Mr. Benalcazar:

Per your request, please consider this letter a summary of the trip generation that considers an age target for the subject site.

## **BACKGROUND/EXISTING CONDITIONS**

The subject site is proposed to be developed with 70 units that are marketed to “empty nesters”. The site is located in the southeast quadrant of the intersection of Tussic Street Road & Oxbow Road. One full access is proposed on Oxbow Road. The permitting agency for the access on Oxbow Road is the Delaware County Engineer’s Office (DCEO).

For access to the roadway, the DCEO’s TIS Standards require a traffic impact study if the site generates 100 or more peak hour trips. The 70 proposed units will not exceed 100 peak hour trips. However, the DCEO required that a traffic analysis be performed. The analysis was submitted to the DCEO on December 4, 2017 and approved by the DCEO on December 27, 2017. Since the proposed zoning text does not have an age restriction, the DCEO required that a non-age related residential land use be used to represent the site. This provides a conservative estimate of trips in order to evaluate off-site improvements. For this site, using the conservative trip generation did not affect the results of the traffic analysis.

It is our understanding that traffic studies for age-targeted projects such as the one being proposed are typically represented with a senior housing land use, which in this case would be “Senior Housing – Detached” (ITE Code #251). Therefore, supplemental trip generation information is being provided that would likely be a closer representation of the actual trips that will be generated by the site.

## **SENIOR HOUSING TRIP GENERATION**

The trip generation was calculated using the *Trip Generation Manual, 10th Edition* published by the Institute of Transportation Engineers (ITE). The land use considered was “Senior Housing – Detached” (ITE Code #251). Table 1 attached shows the resulting trip generation calculations.

## CONCLUSIONS

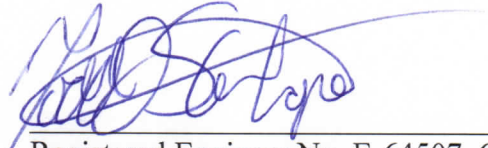
The following is a comparison of the results of the trip generation for total trips:

<u>Description</u>	<u>Adj. Street AM Peak Hour</u>	<u>Adj. Street PM Peak Hour</u>	<u>Daily</u>
Age Targeted (70 Senior Housing Units)	31	36	299
DCEO Traffic Analysis (70 Single Family Units)	55	72	749

Based on the analysis, consideration of an age-targeted development will generate 24 fewer trips in the AM Peak hour of the adjacent street and 36 fewer new trips in the PM Peak hour of the adjacent street than the single-family units considered in the approved traffic analysis. Though daily traffic is not typically used to evaluate roadway improvements, it does provide a general representation of trips generated and in this case shows that consideration of an age-targeted development will generate 450 fewer trips.

Please let me know if you have any questions. Thank you.

Sincerely,  
**SMART SERVICES, INC.**

  
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Registered Engineer No. E-64507, Ohio  
Todd J. Stanhope, PE, PTOE  
Director of Traffic Engineering

1-02-2018  
\_\_\_\_\_  
Date



Submitted: One electronic copy (PDF format) via e-mail



Traffic Study Subarea	Land Use	Time of Day	Data Set from: <i>Trip Generation Manual, 10th Edition</i> (Unless noted Otherwise)	Override with Average	Regression Equation from: <i>Trip Generation Manual 10th Edition</i>	Entering		Exiting		
						Total Trips	%	Total Trips	%	
1	Senior Adult Housing-Detached (ITE Code #251)  Ind. Variable (X) = 70 Dwelling Units	Daily	Weekday	<input type="checkbox"/>	Average Rate= 4.27	299	50%	150	50%	149
		AM Peak	Peak Hour of Adj. Street Traffic, One Hour between 7 & 9 AM	<input type="checkbox"/>	$\ln(T)=0.76\ln(X)+0.21$	31	33%	10	67%	21
		PM Peak	Peak Hour of Adj. Street Traffic, One Hour between 4 & 6 PM	<input type="checkbox"/>	$\ln(T)=0.78\ln(X)+0.28$	36	61%	22	39%	14
<b>TOTALS</b>				<input type="checkbox"/>		299		150		149
			Daily							
			AM Peak			31		10		21
			PM Peak			36		22		14

Benalcazar Property Traffic Analysis - 1/2018

TABLE 1 - SITE TRIP GENERATION SUMMARY