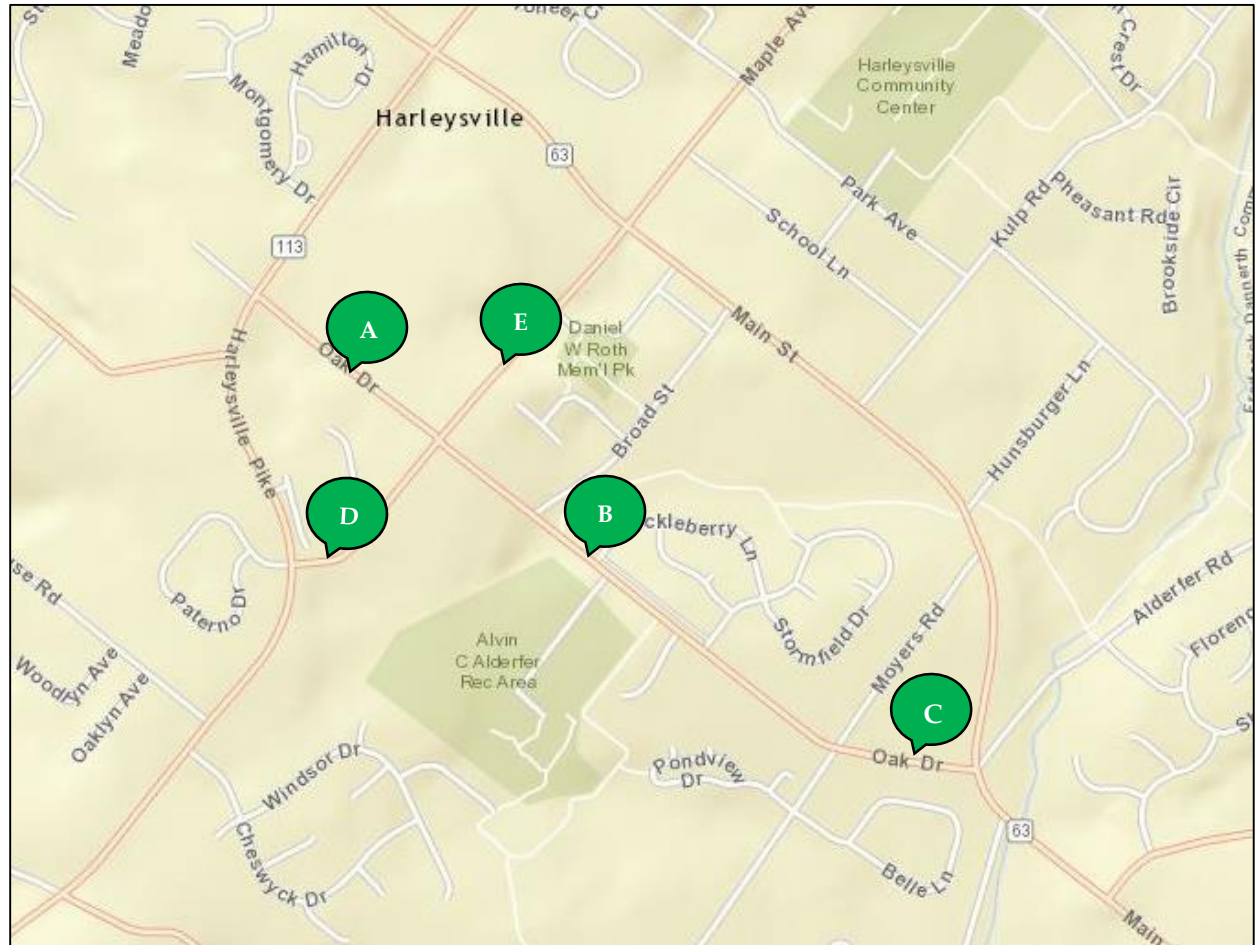


Truck Traffic Summary – Oak Drive and Maple Avenue

In response to resident concerns regarding truck traffic along Oak Drive, the Township conducted daily counts at three locations to document the volume and type of vehicles, as well as the typical (85th percentile) travel speeds. In addition to the Oak Drive locations, two locations along Maple Avenue were counted. The map below illustrates the locations where the counts were conducted.

A review of the travel speeds, or the 85th percentile speeds, was also conducted. The 85th percentile speed represents the speed at which 85 percent of the traffic is traveling at or below. Oak Drive data indicates that the 85th percentile speeds are approximately 40 and 34 miles per hour in the eastbound and westbound directions of travel, respectively. Along Maple Avenue, the 85th percentile travel speeds are 37 and 36 miles per hour in the northbound and southbound directions, respectively. These speeds are generally consistent with the posted speed limit of 35 miles per hour on both roadways.






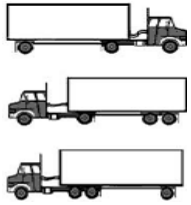


The table below indicates the daily traffic volumes along each roadway segment for a typical weekday along with the amount of passenger vehicles (motorcycles, cars, trucks, SUVs, etc.), buses, and truck traffic. As can be seen from the table, truck traffic in the eastbound direction of travel along Oak Drive ranges from 184 to 206 trucks per day or 5.5% to 6.6% of the total traffic. In the westbound direction of travel along Oak Drive, the truck traffic is higher and ranges from 288 to 355 trucks per day or 9.6% to 10.5% of the total traffic. Along Maple Avenue, the truck traffic is slightly higher in the northbound direction of travel than the southbound direction with more truck traffic on the segment between Route 113 and Oak Drive.

Daily Traffic Characteristics

ID	Location			Daily	Passenger Vehicles	Buses	Trucks	Percent Trucks
A	Oak Drive	Route 113 to Maple Avenue	EB	2,770	2,515	71	184	6.6%
			WB	<u>2,734</u>	<u>2,362</u>	<u>84</u>	<u>288</u>	<u>10.5%</u>
			Total	5,504	4,877	155	472	8.6%
B	Oak Drive	Maple Avenue to Penn Oak Court	EB	3,206	2,937	79	190	5.9%
			WB	<u>3,161</u>	<u>2,759</u>	<u>90</u>	<u>312</u>	<u>9.9%</u>
			Total	6,367	5,696	169	502	7.9%
C	Oak Drive	Penn Oak Court to Route 63	EB	3,735	3,440	89	206	5.5%
			WB	<u>3,687</u>	<u>3,230</u>	<u>102</u>	<u>355</u>	<u>9.6%</u>
			Total	7,422	6,670	191	561	7.6%
D	Maple Avenue	Route 113 to Oak Drive	NB	2,065	1,927	12	126	6.1%
			SB	<u>1,928</u>	<u>1,817</u>	<u>16</u>	<u>95</u>	<u>4.9%</u>
			Total	3,993	3,744	28	221	5.5%
E	Maple Avenue	Oak Drive to Alumni Avenue	NB	1,692	1,562	11	119	7.0%
			SB	<u>1,574</u>	<u>1,472</u>	<u>14</u>	<u>88</u>	<u>5.6%</u>
			Total	3,266	3,034	25	207	6.3%

The next table provides a summary of the different types of trucks using each roadway segment for a typical weekday. The classification scheme presented is based upon the Federal Highway Administration classification. A small diagram has also been provided on the table to illustrate what each vehicle could potentially look like based on the classification. As can be seen, the majority of the trucks are two-axle, single unit trucks.

Daily Truck Traffic by Type

ID	Location			Total Trucks	Class 5	Class 6	Class 7	Class 8	Class 9	Class 10
					Two-Axle, Six-Tire Single Unit	Three-Axle Single-Unit	Four or More Axle Single-Unit	Four or Less Axle Single Trailer	Five-Axle Single Trailer	Six or More Axle Single Trailer
										
A	Oak Drive	Route 113 to Maple Avenue	EB	184	106	16	5	40	12	5
			WB	<u>288</u>	<u>168</u>	<u>20</u>	<u>7</u>	<u>74</u>	<u>16</u>	<u>3</u>
			Total	472	274	36	12	114	28	8
B	Oak Drive	Maple Avenue to Penn Oak Court	EB	190	110	16	5	42	12	5
			WB	<u>312</u>	<u>186</u>	<u>20</u>	<u>7</u>	<u>80</u>	<u>16</u>	<u>3</u>
			Total	502	296	36	12	122	28	8
C	Oak Drive	Penn Oak Court to Route 63	EB	206	123	16	5	45	12	5
			WB	<u>355</u>	<u>219</u>	<u>20</u>	<u>7</u>	<u>90</u>	<u>16</u>	<u>3</u>
			Total	561	342	36	12	135	28	8
D	Maple Avenue	Route 113 to Oak Drive	NB	126	72	34	1	9	10	0
			SB	<u>95</u>	<u>68</u>	<u>4</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>0</u>
			Total	221	140	38	8	18	17	0
E	Maple Avenue	Oak Drive to Alumni Avenue	NB	119	67	32	1	9	10	0
			SB	<u>88</u>	<u>61</u>	<u>4</u>	<u>7</u>	<u>9</u>	<u>7</u>	<u>0</u>
			Total	207	128	36	8	18	17	0

The next table provides a summary of the hourly truck traffic at each location along Oak Drive in the direction of travel indicated. As can be seen, the truck traffic in the westbound direction of travel peaks between 11:00 AM to 5:00 PM on a typical weekday with the highest number of trucks between 12:00 PM and 1:00 PM. In the eastbound direction of travel, the volume of truck traffic peaks from 3:00 PM to 4:00 PM.

Oak Drive Time of Day Truck Patterns

Direction	Eastbound			Westbound		
	Oak Drive, West of Maple Avenue	Oak Drive, West of Penn Oak Court	Oak Drive, West of Route 63	Oak Drive, West of Route 63	Oak Drive, West of Penn Oak Court	Oak Drive, West of Maple Avenue
5:00 AM	4	4	4	7	6	6
6:00 AM	16	17	19	13	11	11
7:00 AM	12	13	15	13	12	12
8:00 AM	9	10	11	18	16	14
9:00 AM	12	12	14	20	18	16
10:00 AM	14	14	14	16	16	16
11:00 AM	13	13	14	39	34	30
12:00 PM	11	11	12	47	40	34
1:00 PM	12	12	13	36	31	29
2:00 PM	6	6	6	17	15	14
3:00 PM	23	26	30	31	26	23
4:00 PM	14	14	15	34	29	26
5:00 PM	14	14	15	20	17	17
6:00 PM	8	8	8	23	20	19

Future Considerations

1. Investigate replacing the truck climbing lane on southbound Route 113.
2. Investigate placing positive truck route directional signing to encourage drivers to utilize Route 63 to Route 113 in lieu of Oak Drive.
3. Evaluating potential measures such as an enhanced pedestrian crossing area at Alderfer Park, including the installation of a pedestrian refuge island or bump-outs to reduce crossing distances and lane widths.