2. Traffic Characteristics

Traffic volumes have increased in concert with population growth in the Towns of Southampton and East Hampton. The New York State Department of Transportation (NYSDOT) maintains a continuous traffic count station on Sunrise Highway (NYS Route 27) in the vicinity of the Peconic Road overpass approximately 0.5 mile east of the Shinnecock Canal. Figure A-4 presents the Average Annual Daily Traffic[2] (AADT) volumes counted at that location over an eighteen-year period from 1984 to 2002.

Nearly 38,000 vehicles cross the Shinnecock Canal on Sunrise Highway (NYS Route 27) daily, during peak summer months.

A trend line projecting traffic growth at a linear growth rate of 2.21% per year has been projected onto Figure A-4 indicating that traffic growth has been relatively consistent with the growth of the population in the area. Figure A-5, NYS Route 27 Average Annual Daily Traffic Volumes, 1992 to 2002 presents the same information for the latest ten-year period with the growth trend line indicating a slightly lower growth rate of 2.14%. Figure A-6, NYS Route 27 July/August Average Daily Traffic Volumes presents the average number of vehicles passing the count location averaged over the peak July/August time period alone. Note that July/August Daily Traffic volumes are approximately 9,000 vehicles higher than the average over the entire year and that the growth trend line over the peak summer months is considerably less than the growth trend line over the entire year at 1.5%.

In July and August, the daily traffic crossing the Shinnecock Canal on Sunrise Highway (NYS Route 27) is 9,000 vehicles higher than the average calculated over the entire year.

Figures A-7 thru 9 present the seasonal variations in traffic measured at the NYSDOT count station on Sunrise Highway east of the Shinnecock Canal. These figures present the Average Daily Traffic (ADT) for each month of the year and the highest peak hour of flow measured during that month. Figure A-7 presents the information for the weekday period, Figure A-8 presents the information for Saturdays and Figure A-9 presents the information for Sundays. The fluctuation of the Average Daily Traffic from its lowest points in January and December to its highest point in July and August are dramatic doubling during the weekdays and Saturday and tripling on Sundays. The fluctuation of the highest hour of flow during the weekday period tends to be flatter indicating that

[2] Note that AADT is the total daily traffic passing the location averaged over the entire year. Summer daily traffic can be expected to be higher and winter traffic lower.

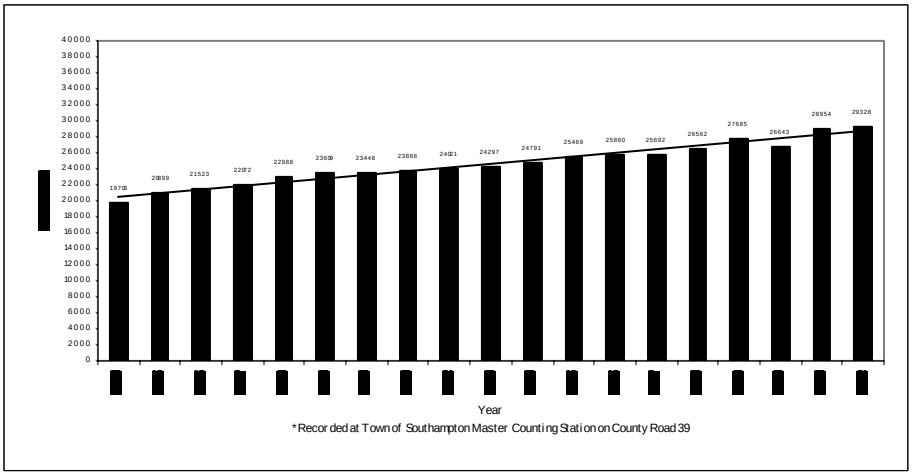


Figure A-4
N.Y.S. Route 27 Average Annual Daily Traffic Volumes 1984 to 2002
NYSDOT Continuous Count Station - Located West of Peconic Road Overpass
Trendline = 2.21% linear growth

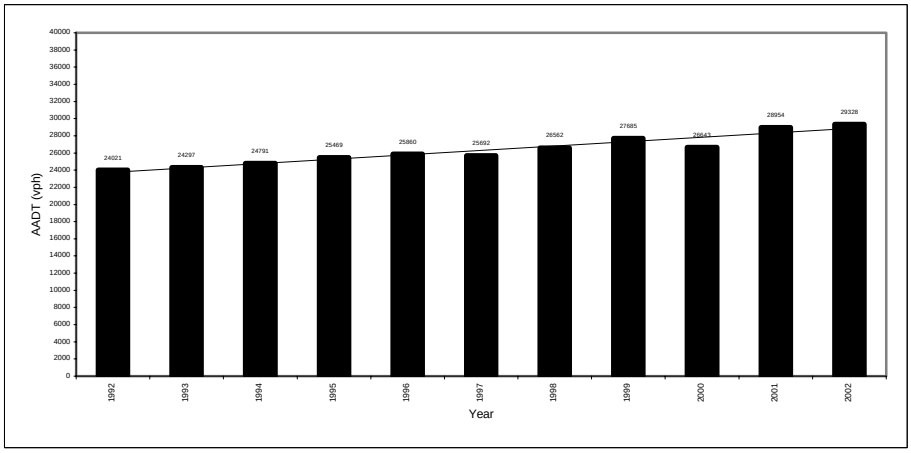


Figure A-5
N.Y.S. Route 27 Average Annual Daily Traffic Volumes 1992 to 2002
NYSDOT Continuous Count Station - Located West of Peconic Road Overpass
Trendline = 2.14% linear growth

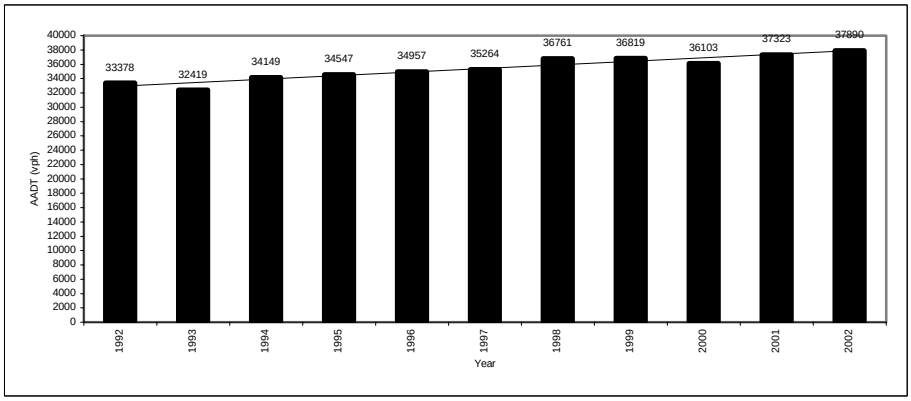


Figure A-6
N.Y.S. Route 27 July/August Average Daily Traffic Volumes 1992 to 2002
NYSDOT Continuous Count Station - Located West of Peconic Road Overpass
Trendline = 1.50% per year growth

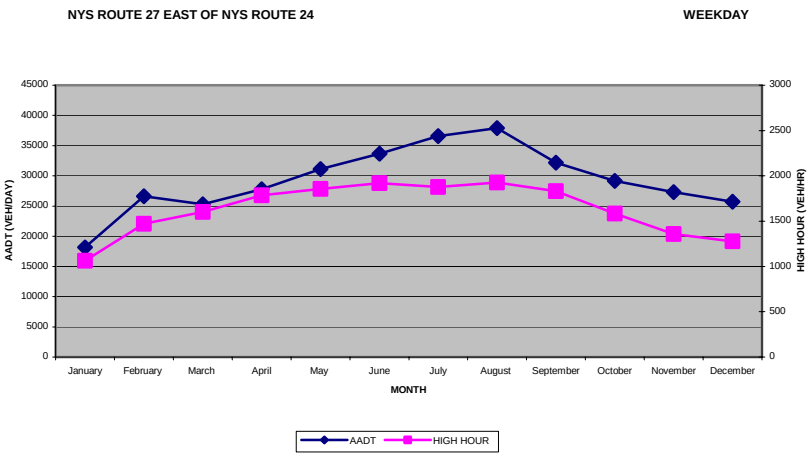


Figure A-7
NYS Route 27 East of NYS Route 24
Weekday

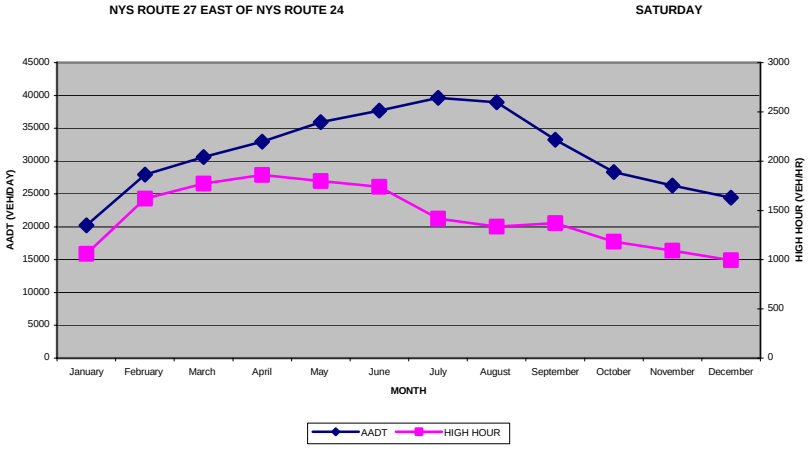


Figure A-8
NYS Route 27 East of NYS Route 24
Saturday

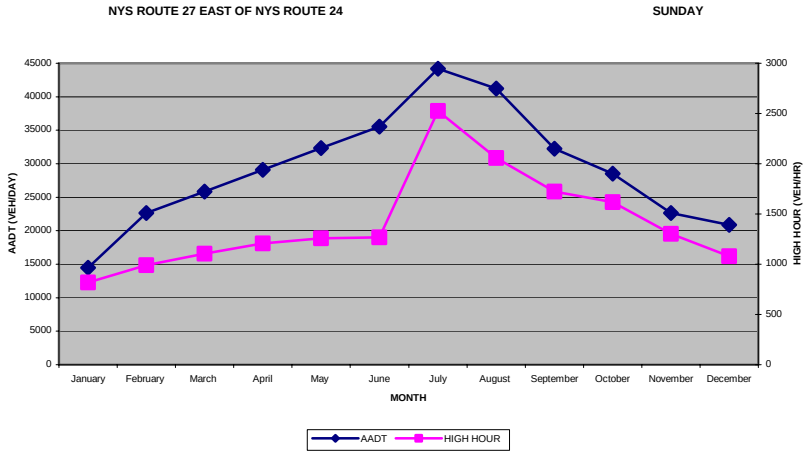


Figure A-9
NYS Route 27 East of NYS Route 24
Sunday

seasonal increases in traffic flow occur more in the off peak periods. Note also the highest weekday peak hour of flow exceeds the measured capacity of North Highway (County Road 39) 10 out of 12 months of the year and that it is consistently high from April through September. The Saturday highest peak hour of flow is highest in the period from February to June and less during the prime summer months of July and August.

Figure A-10, Hourly Traffic Volume Data, NYS Route 27, Weekday presents a plot of hourly traffic volumes observed on Sunrise Highway, (Route 27) at the Shinnecock Canal during June 2000. *The volume plot is similar to that typified by highways across the nation that are utilized by people commuting to work with sharp directional A.M. and P.M. peak hours of flow. What makes this plot different from what might be found on the east/west parkways in Nassau County or Western Suffolk or on the Long Island Expressway is that the peak flow during the A.M. peak hour is eastbound rather than westbound and peak flow in the P.M. peak hour is westbound rather than eastbound*.

It is not just the "Trade Parade," construction and service workers supporting the residential housing market that create the Morning Rush Hour and Evening Rush Hour in Southampton Town. It's also workers traveling to commercial and employment centers that are located east of the Shinnecock Canal, while residences of these workers are predominantly located west of the Shinnecock Canal and frequently in adjoining townships.

Figures A-11 and A-12 present hourly traffic volumes measured at the eastern end of Sunrise Highway (NYS Route 27) for a Saturday and Sunday respectively. On Saturday, there are no sharp peaks but there is a heavy sustained flow of traffic to the east beginning early in the morning peaking at 10:00 A.M. but remaining higher than the westbound flow until almost 4:00 P.M. Peak eastbound flow does not meet the typical weekday A.M. peak hour of flow but heavy eastbound flow lasts longer. On Sundays, traffic flow is heaviest in the westbound direction, reaching a peak at 3:00 P.M. Peak flow lasts for almost ten hours and the 3:00 P.M. peak is considerably higher than peak flows observed during the weekday peak period.

Figure A-13 presents the results of a Vehicle Occupancy Survey observed on County Road 39 (North Highway) just east of the Route 27 count station. The survey was taken during weekday A.M., Midday, and P.M. peak hours of flow during a summer weekday. The survey indicates that 65% of the vehicles observed contained only the driver, while 35% contained one or more passengers. The average occupancy was 1.44 persons per vehicle compared to 1.2 persons observed elsewhere on Long Island. Figure A-14 presents the results of vehicle occupancy studies done during peak hours of traffic and Saturday and Sunday on County Road 39. During these weekday and weekend observations, single occupant cars represented only 39% of vehicles observed. Average vehicle occupancy was 1.79 persons per vehicle. The differences between these numbers is at least in large part, due to the presence of second homeowners on the weekends.

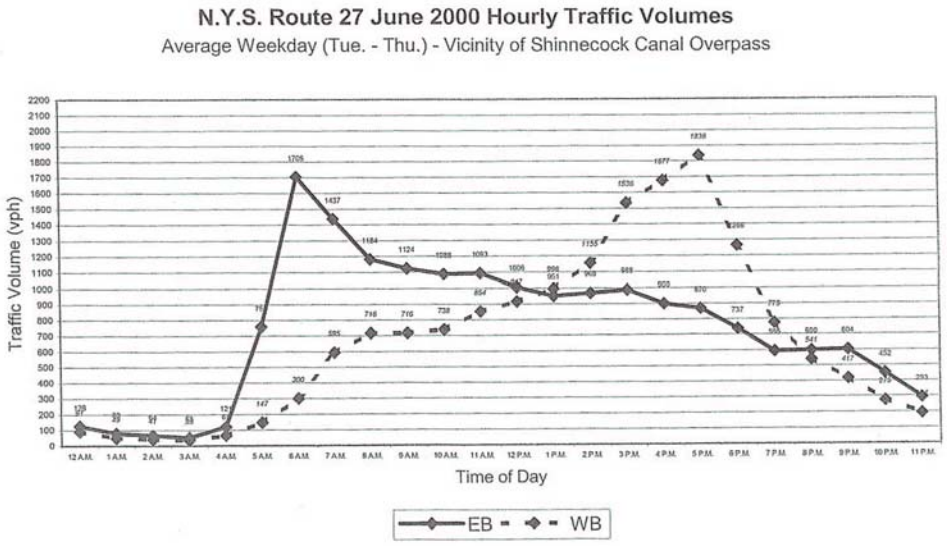


Figure A-10
Hourly Traffic Volume Data - N.Y.S. Route 27; Weekday

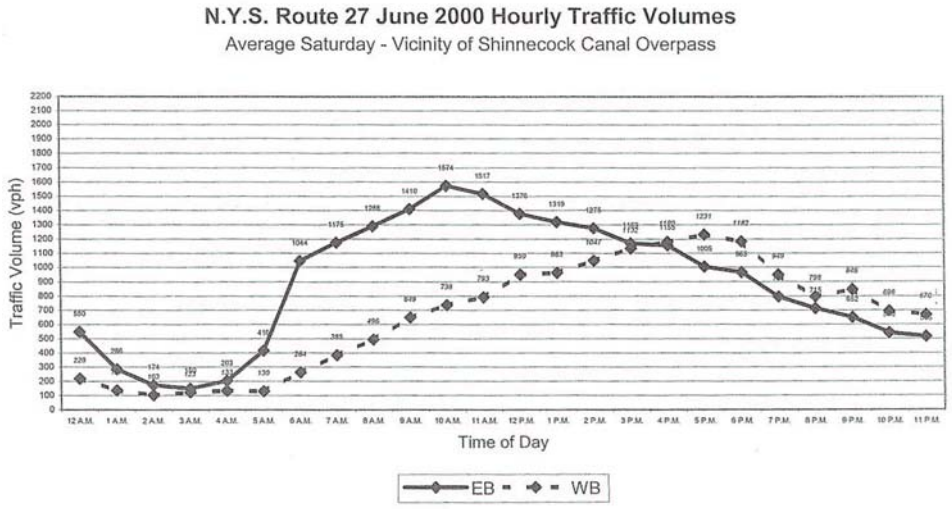


Figure A-11
Hourly Traffic Volume Data - N.Y.S. Route 27; Saturday

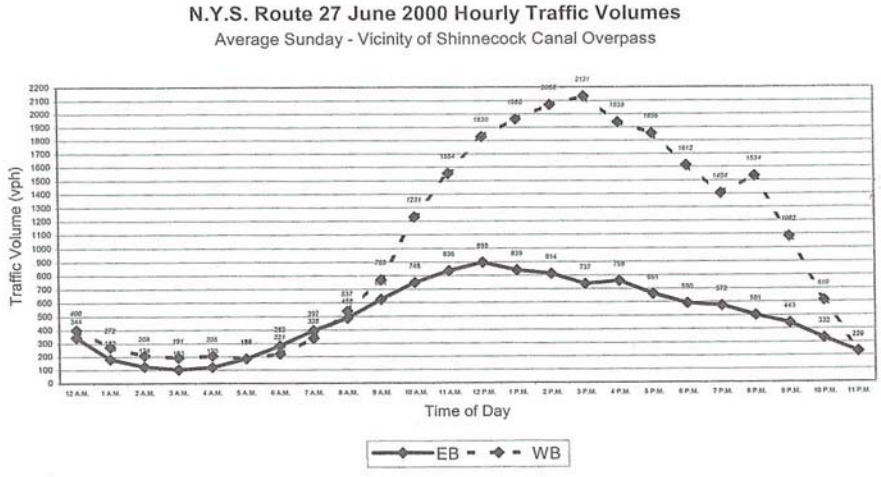


Figure A-12
Hourly Traffic Volume Data - N.Y.S. Route 27; Sunday

- Average Occupancy = 1.44 persons

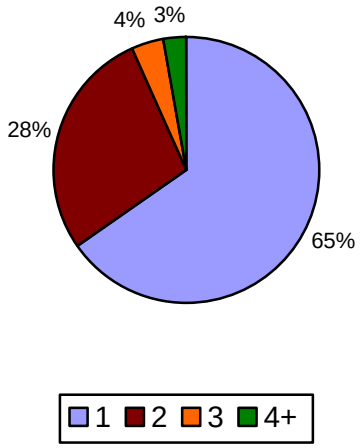


Figure A-13
Vehicle Occupancy Study Summary
County Road 39; Weekday
July-August 2002

- Average Occupancy = 1.79 persons

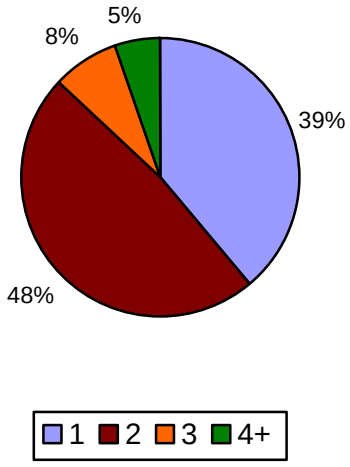


Figure A-14
Vehicle Occupancy Study Summary
County Road 39; Weekend
July-August 2002

Vehicle classification studies were also undertaken on C.R. 39 to determine the make-up of traffic on the road. Figure A-15 present the results of the vehicle classification studies. As would be expected, there are many more trucks using the roadway during the weekday peak periods than on the weekend. The percentage of trucks using the roadway during the weekday A.M. peak period exceeds 10% and is considered quite high. That percentage drops off to between 4 to 6% during the P.M. peak period.

The traffic movements that have been observed indicate that the transportation infrastructure in the Town of Southampton is accommodating diverse and complex demands particularly in terms of workforce traffic. The Towns of Southampton and East Hampton are currently generating substantially more jobs then the population of the Towns can fill. Employment centers are located east of the Shinnecock Canal, while workers are residing in the westerly hamlets of the Town of Southampton and in the adjoining townships of the other east end towns, Brookhaven, Islip and other westerly areas. As a result, a large volume of traffic from west and north of Southampton is commuting into Southampton and East Hampton each morning for employment and returning each evening.

In addition to carrying this daily commuting traffic there is a large volume of second homeowners and visitors that need to be accommodated eastbound on Friday and Saturday and westbound on Sunday. These trips are generally over longer distances compared to the daily commuting trips with most originating in New York City, Nassau County, western Suffolk County and points further west. Another group of travelers the transportation system must accommodate are the "day trippers" or visitors to the Towns of Southampton and East Hampton who journey to the East End of Long Island to shop or use the recreational facilities but do not stay overnight. Further, there are the residents and visitors who move about the town to work, go to school, shop, and use the recreational facilities or visit. Finally, some attention needs to be paid to the issue of providing for the mobility needs of the "transportation-disadvantaged," including senior citizens, the disabled, and persons of lesser financial means.[3] All of these diverse needs must be accommodated within the transportation system (regardless of mode: either highway, rail, bus transit, bicycle, etc.).

[3] Peconic Community Council.

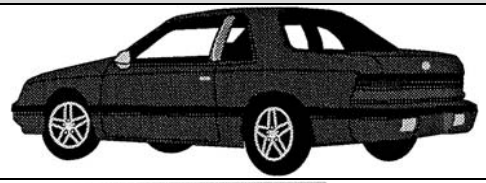
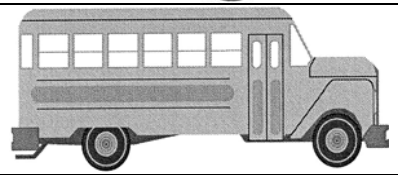
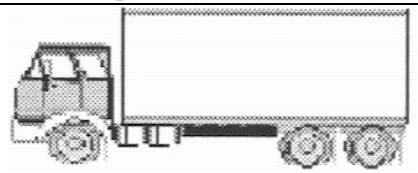
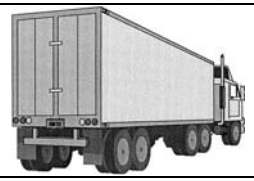
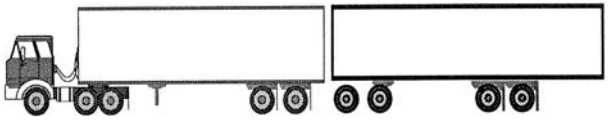
Vehicle Class		Direction	Distribution			
			Weekday A.M.	Weekday P.M.	Saturday	Sunday
	Two-Axle, Two or Four Tire Vehicles (FHWA Class 1-3)	EB	86.7%	96.0%	97.6%	98.5%
		WB	89.7%	93.9%	94.8%	98.8%
	Buses (FHWA Class 4)	EB	0.6%	0.5%	0.4%	0.6%
		WB	1.0%	0.4%	0.6%	0.5%
	Single Unit Trucks (FHWA Class 5-7)	EB	10.4%	3.2%	1.8%	0.6%
		WB	6.3%	5.2%	4.2%	0.6%
	Single-Trailer Combination Trucks (FHWA Class 8-10)	EB	2.2%	0.3%	0.2%	0.3%
		WB	3.0%	0.5%	0.4%	0.1%
	Multiple-Trailer Combination Trucks (FHWA Class 11-13)	EB	0.1%	0.0%	0.0%	0.0%
		WB	0.0%	0.0%	0.0%	0.0%

Figure A-15
Vehicle Classification Count Summary
County Road 39