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**M E M O R A N D U M**

**PLANNING  
COMMISSION  
EXHIBIT #19**

**DATE:** October 18, 2004  
**TO:** Christine Nelson, AICP  
Town Planner/Director of Land Use  
Town of Old Saybrook  
302 Main Street  
Old Saybrook, CT 06475  
**FROM:** Bruce Hillson - Traffic Engineering Solutions  
**RE:** Trip Generation for The Preserve

New trips associated with The Preserve as a Standard Subdivision and as an Open Space Subdivision were determined from the Institute of Transportation Engineers (ITE) reference, Trip Generation<sup>1</sup>. The ITE reference has established mathematical relationships based on studies of various land uses to determine their trip generation rates. These trip generation relationships have been standardized and published in the Trip Generation reference.

The ITE reference provides trip generation information for "Single-Family Detached Housing", "Residential Condominium/Townhouse" and "Golf Course" under Land Use Codes 210 - "Single-Family Detached Housing", 230 - "Residential Condominium/Townhouse" and 430 - "Golf Course". The following trip generation relationships were used to determine the number of daily, and morning, afternoon and Saturday peak hour trips that would be generated by the two developments. The results are summarized in Tables 1 and 2.

Single-Family Detached Housing

Average Weekday Trips	$\ln(T) = 0.92 \ln(X) + 2.71$	
Morning Peak Hour	$T = 0.70 (X) + 9.43$	25/75
Afternoon Peak Hour	$\ln(T) = 0.90 \ln(X) + 0.53$	63/37
Saturday Daily	$\ln(T) = 0.94 \ln(X) + 2.63$	
Saturday Peak Hour	$T = 0.89 (X) + 10.93$	54/46

where T is the number of trips and X the number of detached homes

<sup>1</sup> Trip Generation Seventh Edition published by the Institute of Transportation Engineers, 2003

Residential Condominium/Townhouse

Average Weekday Trips	$\ln(T) = 0.85 \ln(X) + 2.55$	
Morning Peak Hour	$\ln(T) = 0.80 \ln(X) + 0.26$	17/83
Afternoon Peak Hour	$\ln(T) = 0.82 \ln(X) + 0.32$	67/33
Saturday Daily	$T = 3.62 (X) + 427.93$	
Saturday Peak Hour	$T = 0.29 (X) + 42.63$	54/46

where T is the number of trips and X the number of units

Golf Course

Average Weekday Trips	35.74 Trips per Hole
Morning Peak Hour	2.22 Trips per Hole 79/21
Afternoon Peak Hour	2.74 Trips per Hole 44/56
Saturday Daily	40.63 Trips per Hole
Saturday Peak Hour	4.59 Trips per Hole 49/51

where T is the number of trips and X the number of units

**Table 1 – Trip Generation for Standard 292 Home Subdivision**

	Trips Entering	Trips Leaving
Daily	1,393	1,393
Morning Peak Hour	53	160
Afternoon Peak Hour	177	104
Saturday Daily	1,441	1,441
Saturday Midday Peak Hour	146	125

**Table 2 - Trip Generation for Open Space Subdivision with 158 S.F. Homes, 90 Multi-Family Homes and Golf Course**

	Trips Entering				Trips Leaving			
	S.F. Homes	Condos	Golf Course	Total	S.F. Homes	Condos	Golf Course	Total
Daily	792	293	322	1,407	792	293	322	1,407
Morning Peak Hour	30	8	32	70	90	39	8	137
Afternoon Peak Hour	102	37	22	161	60	18	28	106
Saturday Daily	809	377	366	1,552	809	377	366	1,552
Saturday Midday Peak Hour	82	37	40	159	70	32	42	144