

## These rates should only be used in determining what type of NJDOT Access Permit is needed.

These are the rates and equations that were being used by the HAPS program as of May 31, 2005 and they will be updated as new information is available.

LAND USE CODE	LAND USE DESCRIPTION	UNITS OF MEASURE (X)	AM PEAK HOUR *	PM PEAK HOUR *	WEEKDAY DAILY TRIPS *	WEEKEND PEAK HOUR *	WEEKEND DAILY TRIPS *
22	General Aviation Airport	AIRCRAFT	X*0.41	X*0.52	X*5.0	X*0.58	X*4.51
30	Truck Terminal	ACRES	X*7.74	X*7.24	X*81.90	X*2.33	X*17.28
90	Park and Ride with Bus Service	PRKNG SLOTS	X*0.75	X*0.62	X*4.5	X*0.62	X*4.5
110	Industrial, General Light, <1,000,000 sf	SQ. FEET	X/1000*1.01	X/1000*1.08	X/1000*6.97	X/1000*0.14	X/1000*1.32
111	Industrial, General Light, >1,000,000 sf	SQ. FEET	1.177*(X/1000)-60.802	1.422*(X/1000)-125.200	7.468*(X/1000)-101.921	X/1000*0.14	X/1000*1.32
120	Industrial, General Heavy	SQ. FEET	X/1000*0.51	X/1000*0.68	X/1000*1.50	X/1000*0.51	X/1000*1.50
130	Industrial Park	SQ. FEET	X/1000*0.84	X/1000*0.86	X/1000*6.96	X/1000*0.35	2.25*(X/1000)+99.26
140	Manufacturing	SQ. FEET	0.83*(X/1000)-17.71	0.76*(X/1000)-5.15	3.88*(X/1000)-20.70	(X/1000)*0.28	(X/1000)*1.49
149	Warehousing, < or = 300,000 Square Feet	SQ. FEET	X/1000*0.57	X/1000*0.61	X/1000*4.96	X/1000*0.12	X/1000*1.22
150	Warehousing, > 300,000 Square Feet	SQ. FEET	(X/1000)*0.39+63.12	(X/1000)*0.46+53.12	(X/1000)*3.68+350.27	(X/1000)*0.12	(X/1000)*1.22
151	Mini Warehouse	SQ. FEET	X/1000*0.28	X/1000*0.29	EXP(1.01*LN(X/1000)+0.82)	EXP(1.11*LN(X/1000)-1.43)	(X/1000)*2.33
209	Housing, Single Family (1 Unit)	UNIT	X*1	X*2	X*15	X*1	X*13
210	Housing, Single Family	UNITS	0.70*(X)+12.05	EXP(0.89*LN(X)+0.61)	EXP(0.92*LN(X)+2.71)	0.89*X+10.93	EXP(0.94*LN(X)+2.63)
219	Apartments < = 175 Units	UNITS	0.53*X+4.21	0.60*X+17.52	6.72*X	0.52*X	6.39*X
220	Apartments > 175 Units	UNITS	0.53*X+4.21	0.60*X+17.52	6.01*X+150.35	0.52*X	6.39*X
222	Apartments, High Rise (> 10 Levels )	UNITS	EXP(0.94*LN(X)-0.71)	0.35*X+20.11	EXP(0.83*LN(X)+2.50)	EXP(0.93*LN(X)-0.54)	5.03*X-14.90
223	Apartments, Mid-Rise( >= 3 & <= 10 Level)	UNITS	0.46*(X) - 14.01	0.53*(X) - 11.27	(0.53*(X) - 11.27)/.10	0.53*(X) - 11.27	(0.53*(X) - 11.27)/.10
230	Condo/Townhouse	UNITS	EXP(0.82*LN(X)+0.17)	X*0.52	EXP(0.85*LN(X)+2.55)	X*0.47	X*5.67
232	High-Rise Condo/Townhouse	UNITS	0.30*(X)+25.33	EXP(0.84*LN(X)+0.07)	3.77*X+223.66	0.30*X+28.85	3.94*X+197.85
240	Mobile Home Park	UNITS	EXP(0.64*LN(X)+1.03)	0.57*X+5.31	3.52*X+277.51	EXP(0.82*LN(X)+0.29)	3.48*X+289.88
251	Senior Adult Housing -- Detached	UNITS	EXP(0.86*LN(X)-0.63)	EXP(0.72*LN(X)+0.58)	EXP(0.85*LN(X)+2.38)	EXP(0.72*LN(X)+0.58)	EXP(0.85*LN(X)+2.38)
252	Senior Adult Housing -- Attached	UNITS	X*0.08	X*0.11	X*3.48	X*0.55	X*2.70
253	Congregate Care Facility	UNITS	X*0.14	X*0.20	X*2.02	X*0.20	X*2.02
260	Recreational Homes	UNITS	0.24*X+20.78	0.26*X+14.87	X*3.16	0.24*X+40.86	X*3.07
270	Residential Planned Unit	UNITS	EXP(0.90*LN(X)+0.14)	EXP(0.92*LN(X)+0.24)	EXP(0.88*LN(X)+2.82)	EXP(0.97*LN(X)-0.39)	EXP(0.99*LN(X)+2.02)
310	Hotel	ROOMS	X*0.67	X*0.74	X*8.92	X*0.87	X*10.5
311	Hotel - ALL SUITES	ROOMS	X*.52	X*.55	X*6.24	X*.55	X*6.24
320	Motel	ROOMS	X*0.67	X*0.69	EXP(0.97*LN(X)+2.30)	X*0.76	X*8.84
330	Hotel, Resort	ROOMS	X*0.47	X*0.59	X*6.44	X*1.23	X*13.43
412	County Park	ACRES	X*0.52	X*0.59	X*2.28	X*3.6	X*12.14
415	Beach Park	ACRES	X*0.48	X*0.60	X*29.81	X*1.54	X*68.52
420	Marina	BERTHS	X*0.17	X*0.21	1.89*X+410.80	X*0.27	2.08*X+587.61
430	Golf Course	HOLES	X*3.01	X*3.56	X*35.74	X*4.59	X*40.63
443	Movie Theater w/o Matinee	SCREENS	X*9.5	X*37.83	X*220.0	X*64.5	X*376.0
444	Movie Theater w/Matinee	SCREENS	X*9.5	X*102.87	X*348.33	X*120.48	X*546.86
465	Ice Rink	SQ. FEET	(X/1000)*0.787	(X/1000)*2.36	(X/1000)*23.6	(X/1000)*2.36	(X/1000)*23.6
488	Soccer Complex	FIELDS	X*2.90	X*21.77	X*71.33	X*28.73	X*117.43
492	Health/Fitness Club	SQ.FEET	X/1000*1.41	X/1000*4.06	X/1000*32.93	X/1000*2.6	X/1000*26.73
494	Bowling Alley	SQ. FEET	(X/1000)*3.13	(X/1000)*3.54	(X/1000)*33.33	(X/1000)*3.54	(X/1000)*33.33
495	Recreational Community Center	SQ. FEET	2.69*X/1000	2.39*X/1000	22.88*X/1000	1.48*X/1000	13.60*X/1000
520	School, Elementary	STUDENTS	X*0.42	X*0.28	X*1.29	X*0.026	X*0.129
522	School, Middle/Jr. High	STUDENTS	X*0.53	X*0.30	X*1.62	X*0.12	X*0.518
530	School, High	STUDENTS	X*0.41	X*0.28	X*1.71	X*0.11	X*0.61
540	College, Jr. or Community	STUDENTS	X*0.12	X*0.12	X*1.20	X*0.05	X*0.42

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CODE	LAND USE DESCRIPTION	MEASURE (X)					
550	College or University	STUDENTS	(X*0.21)-69.14	(X*0.20)+100.48	2.23*X+440.00	(X*0.21)-69.14	X*1.3
560	Church	SQ. FEET	(X/1000)*1.28	(X/1000)*1.41	(X/1000)*9.11	(X/1000)*11.76	(X/1000)*36.63
561	Synagogue	SQ. FEET	(X/1000)*0.42	(X/1000)*1.69	(X/1000)*10.64	(X/1000)*5.91	(X/1000)*22.5
565	Day Care Center	SQ. FEET	(X/1000)*13.56	(X/1000)*13.91	(X/1000)*79.26	(X/1000)*1.74	(X/1000)*6.21
566	Cemetery	ACRES	0.76*X	1.64*X	4.73*X	6.21*X	7.62*X
590	Library	SQ. FEET	EXP(0.61*LN(X/1000)+2.69)	EXP(0.87*LN(X/1000)+2.27)	EXP(0.68*LN(X/1000)+5.04)	(X/1000)*6.75	(X/1000)*46.55
610	Hospital	SQ. FEET	1.00*(X/1000)+160.90	X/1000*1.61	10.01*(X/1000)+2209.31	X/1000*2.26	5.04*(X/1000)+2045.63
620	Nursing Home	BEDS	X*0.12	X*0.30	2.30*(X)+6.07	X*0.40	X*2.11
630	Clinic	SQ. FEET	X/1000*5.18	X/1000*5.18	X/1000*31.45	X/1000*5.18	X/1000*24.10
709	Office, General (<225,000 SF)	SQ. FEET	1.56*(X/1000)	1.49*(X/1000)	11.01*(X/1000)	0.41*(X/1000)	2.37*(X/1000)
710	Office, General (>=225,000 SF)	SQ. FEET	EXP(0.80*LN(X/1000)+1.55)	1.12*(X/1000)+78.81	EXP(0.77*LN(X/1000)+3.65)	0.41*(X/1000)	2.37*(X/1000)
714	Corporate Headquarters	SQ. FEET	EXP(0.95*LN(X/1000)+0.66)	EXP(0.87*LN(X/1000)+1.01)	EXP(0.97*LN(X/1000)+2.23)	EXP(0.95*LN(X/1000)+0.66)*.3	EXP(0.97*LN(X/1000)+2.23)*.2
720	Medical-Dental Office Bldg.	SQ. FEET	3.49*(X/1000)+5.25	4.43*(X/1000)+0.48	(X/1000)*36.13	(X/1000)*3.63	X/1000*8.96
730	Government Office Building	SQ. FEET	X/1000*5.88	X/1000*11.03	X/1000*68.93	X/1000*1.023	X/1000*9.9
732	Post Office	SQ. FEET	(X/1000)*12.19	(X/1000)*14.67	(X/1000)*108.19	(X/1000)*5.88	(X/1000)*48.69
733	Government Office Complex	SQ. FEET	X/1000*2.25	X/1000*2.86	X/1000*25	X/1000*0.265	X/1000*3.59
740	Civic Center	SQ. FEET	X/1000*2.25	X/1000*2.857	X/1000*25.0	X/1000*2.25	X/1000*25.0
750	Office Park	SQ. FEET	EXP(0.84*LN(X/1000)+1.51)	1.21*(X/1000)+106.22	10.42*(X/1000)+409.04	X/1000*0.14	X/1000*1.64
760	Research and Development Center	SQ. FEET	EXP(0.88*LN(X/1000)+0.88)	EXP(0.83*LN(X/1000)+1.06)	(X/1000)*8.11	(X/1000)*0.24	(X/1000)*1.9
770	Business Park	SQ. FEET	EXP(0.98*LN(X/1000)+0.45)	EXP(0.92*LN(X/1000)+0.78)	(X/1000)*12.76	(X/1000)*0.26	EXP(0.83*LN(X/1000)+1.94)
812	Building Materials/Lumber	SQ. FEET	4.16*(X/1000)	5.07*(X/1000)+5.35	38.51*(X/1000)+61.48	EXP(0.95*LN(X/1000)+2.34)	36.75*(X/1000)+137.21
813	Discount Superstore (Free-Standing)	SQ. FEET	X/1000*3.17	X/1000*4.03	X/1000*49.21	X/1000*5.01	X/1000*57.50
814	Specialty Retail Center	SQ. FEET	EXP(0.60*LN(X/1000)+2.29)	(X/1000)*5.02	(X/1000)*44.32	(X/1000)*6.84	(X/1000)*42.04
815	Discount Store (Free-Standing)	SQ. FEET	X/1000*5.06	X/1000*5.43	X/1000*56.02	X/1000*7.58	X/1000*71.19
816	Hardware/Paint Store	SQ. FEET	3.89*(X/1000)+34.80	EXP(0.61*LN(X/1000)+3.01)	(X/1000)*51.29	(X/1000)*11.18	(X/1000)*82.52
817	Nursery/Garden Center	SQ. FEET	X/1000*4.41	X/1000*4.97	X/1000*36.08	X/1000*11.0	X/1000*72.71
818	Nursery (Wholesale to Contractors etc.)	SQ. FEET	(X/1000)*3.02	(X/1000)*5.17	(X/1000)*39	(X/1000)*5.52	(X/1000)*29.9
820	Shopping Center	SQ. FEET	EXP(0.60*LN(X/1000)+2.29)	EXP(0.66*LN(X/1000)+3.40)	EXP(0.65*LN(X/1000)+5.83)	EXP(0.65*LN(X/1000)+3.77)	EXP(0.63*LN(X/1000)+6.23)
823	Factory Outlet Center	SQ. FEET	2.06*X/1000	2.29*X/1000	26.59*X/1000	3.79*X/1000	40.97*X/1000
841	Car Dealer, New or Used	SQ. FEET	X/1000*2.20	X/1000*2.72	X/1000*33.34	X/1000*2.97	X/1000*21.03
843	Automobile Parts Sales	SQ. FEET	6.60*X/1000-17.31	8.92*X/1000-19.61	81.02*X/1000-150.75	8.92*X/1000-19.61	81.02*X/1000-150.75
848	Tire Store	SQ. FEET	(X/1000)*3.45	(X/1000)*4.15	(X/1000)*24.87	(X/1000)*5.05	(X/1000)*35.86
849	Tire Store, Wholesale	SQ. FEET	(X/1000)*2.42	(X/1000)*2.58	(X/1000)*20.36	(X/1000)*3.13	(X/1000)*19.03
850	Supermarket	SQ. FEET	X/1000*12.87-109.76	EXP(0.79*LN(X/1000)+3.20)	X/1000*102.24	X/1000*10.76	X/1000*177.59
851	Convenience Market	SQ. FEET	X/1000*73.10	X/1000*53.42	X/1000*737.99	X/1000*77.11	X/1000*863.10
853	Convenience Market with Gas Pumps	SQ. FEET	X/1000*45.58	X/1000*62.57	X/1000*845.6	X/1000*55.58	X/1000*1448.33
854	Discount Supermarket	SQ. FEET	(X/1000)*7.32	(X/1000)*9.84	(X/1000)*96.82	(X/1000)*10.46	(X/1000)*117.03
860	Wholesale Market	SQ. FEET	X/1000*0.58	X/1000*0.52	X/1000*6.73	X/1000*0.18	X/1000*2.3
861	Discount Club	SQ. FEET	(X/1000)*3.68	(X/1000)*4.76	(X/1000)*41.80	(X/1000)*6.85	(X/1000)*53.75
862	Home Improvement Superstore	SQ. FEET	(X/1000)*2.85	(X/1000)*3.05	(X/1000)*29.80	(X/1000)*5.4	(X/1000)*45.67
863	Electronics Superstore	SQ. FEET	(X/1000)*3.46	(X/1000)*4.5	(X/1000)*45.04	(X/1000)*6.26	(X/1000)*57.29
864	Toy/Children's Superstore	SQ. FEET	(X/1000)*4.99	(X/1000)*4.99	(X/1000)*49.9	(X/1000)*5.53	(X/1000)*55.3
870	Apparel Store	SQ. FEET	(X/1000)*4.8	(X/1000)*4.2	(X/1000)*66.4	(X/1000)*4.8	(X/1000)*66.4
880	Pharmacy/Drugstore w/o Drive-Through	SQ. FEET	14.27*(X/1000)-70.04	(X/1000)*11.07	EXP(0.99*LN(X/1000)+4.51)	(X/1000)*11.07	EXP(0.99*LN(X/1000)+4.51)
881	Pharmacy/Drugstore w/Drive-Through	SQ. FEET	(X/1000)*7.87	(X/1000)*9.51	(X/1000)*88.16	(X/1000)*7.85	(X/1000)*88.16
890	Furniture Store	SQ. FEET	(X/1000)*0.4	(X/1000)*0.53	(X/1000)*5.06	(X/1000)*0.92	(X/1000)*4.94
895	Video Arcade	SQ. FEET	(X/1000)*17.6	(X/1000)*56.81	(X/1000)*96.0	(X/1000)*37.87	(X/1000)*176.0
911	Banks w/o Drive-in	SQ. FEET	X/1000*21.49	X/1000*42.02	X/1000*156.48	X/1000*4.81	X/1000*13.7

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912	Banks w/Drive-in	WINDOWS	X*48.7	X*75.65	X*411.17	X*66.84	X*133.81
931	Restaurant, Quality	SQ. FEET	X/1000*5.57	X/1000*9.02	X/1000*89.95	X/1000*10.82	X/1000*94.36
932	Restaurant, High Turnover (Sit-Down)	SQ. FEET	X/1000*13.53	X/1000*18.80	X/1000*127.15	X/1000*20	X/1000*158.37
933	Restaurant, Fast Food w/o Drive through	SQ. FEET	X/1000*63.5	X/1000*52.4	X/1000*716	X/1000*54.55	X/1000*696
934	Restaurant, Fast Food w/Drive through	SQ. FEET	X/1000*54.81	X/1000*46.68	X/1000*496.12	X/1000*59.20	X/1000*722.03
936	Drinking Place	SQ. FEET	X*0	X/1000*15.49	X/1000*77.45	X/1000*15.49	X/1000*85.2
941	Oil/Lube Facility	SERVICE BAYS	X*3	X*4	X*40	X*7	X*42
942	Automobile Care Center	SQ. FEET	X/1000*3.22	X/1000*4.01	X/1000*15.86	X/1000*4.01	X/1000*15.86
W09	Banquet Hall	SEATS	X*0.16	X*0.3	X*2.86	X*0.33	X*2.81
X01	Service Station With Gas Only	STATIONS	X*71	X*92	X*1012	X*71	X*1012
X02	Service Station With Gas & Service Bays	STATIONS	X*81	X*86	X*781	X*81	X*781
X03	Service Station With Gas & Minimart	STATIONS	X*128	X*129	X*1224	X*129	X*1224
X04	Service Station With Gas & Car Wash	STATIONS	X*108	X*94	X*1174	X*94	X*1174
X05	Service Station w/Minimart,CarWash & Gas	STATIONS	X*110	X*151	X*1288	X*110	X*1288
X07	Car Wash, Tunnel	TUNNEL	X*39	X*58	X*388	X*58	X*388
Y01	Water Tower	TOWERS	X*2	X*2	X*4	X*2	X*4
Y02	Water Treatment Facility	PRKNG SLOTS	X*1	X*1	X*4	X*1	X*4
Y03	Maintenance Yard	EMPLOYEES	X*2	X*2	X*4	X*2	X*4
Y04	Miniature Golf	18 HOLES	X*18	X*28	X*280	X*53	X*530
Y05	Driving Range	TEE	X*0.657	X*1.0	X*10.0	X*1.514	X*15.14
Y06	Batting Cage	CAGE	X*0.78	X*1.11	X*11.11	X*1.67	X*16.67
Y08	Baseball Stadium	PARKIN SPOTS	X*0	X*1	X*2	X*1	X*2
Y09	Firehouse	EMPLOYEES	X*2	X*2	X*4	X*2	X*4
Y10	State Police Headquarters	SQ. FEET	X/1000*1.01	X/1000*1.962	X/1000*11.679	X/1000*1.01	X/1000*4.279
Y11	Liquor Store	SQ. FEET	(X/1000)*4.444	(X/1000)*29.259	(X/1000)*147.037	(X/1000)*14.074	(X/1000)*106.296
Y13	U-Haul Type of Facility	TRUCKS	X*0.75	X*0.75	X*3	X*1.5	X*6
Y14	Parking Lot	SPACES	X*1	X*1	X*10	X*1	X*10
Y15	Farm Stand/Market	FACILITY	X*20	X*38	X*375	X*52	X*480
Y16	Emergency Entrance	LOT	X*1	X*1	X*4	X*1	X*2
Y17	Parking Lot (Long Term Parking)	PRK SPACES	X*0.053	X*0.052	X*0.695	X*0.053	X*0.534
Y18	Funeral Home	FACILITY	X*20	X*24	X*124	X*16	X*53
Y21	Car Wash, Self-Serve/Bays	BAYS	X*2	X*3	X*24	X*3	X*24
Y22	Pilot Travel Center (Temp. Rates)	FACILITY	X*232	X*330	X*3300	X*330	X*3300
Y23	Cellular Tower	TOWERS	X*2	X*2	X*4	X*2	X*4
Y25	ATM Machine(Temp. rates/Counts required)	Machine	X*.084*206	X*.1*206	X*206	X*.123*241	X*241
Y27	Car Rental	FACILITY	X*20	X*21	X*140	X*21	X*140
Y30	Flea Market	ACRES	X*34.47	X*13.30	X*219.2	X*82.94	X*527.3
Y31	Auction Facility	PRK SPACES	X*1	X*1	X*2.52	X*1	X*2.52
Y32	Rita's Water Ice	FACILITY	X*55	X*55	X*435	X*70	X*545
Y33	Motorcycle Dealer	SQ. FEET	X/1000*0.604	X/1000*1.02	X/1000*6.4175	X/1000*1.1875	X/1000*7.395
Y34	Educational Children's Farm	FACILITY	X*32	X*32	X*220	X*50	X*360
Y36	Termite and Pest Control	EMPLOYEES	X*1	X*1	X*2	X*1	X*2
Y38	Dog Boarding Business	EMPLOYEES	X*1.5	X*1.5	X*6	X*1.5	X*6

\* The units of measure is the quantity that should be substituted for the "X" in the equations. It should be noted that the actual SF should be entered into these equations unlike the equations in the ITE books which are based upon 1,000 SF.

Example: A 125,000 sf shopping center will generate the following PM peak hour trips ( X would equal 125,000);

$$\text{Number of PM peak hour trips} = \text{EXP}(0.66 \cdot \text{LN}(X/1000) + 3.40) = \text{EXP}(0.66 \cdot \text{LN}(125,000/1000) + 3.40) = \text{EXP}(0.66 \cdot \text{LN}(125) + 3.40) = \text{EXP}(0.66 \cdot 4.828 + 3.40) = \text{EXP}(6.586) = 725$$