

Capacities for Model V7.		LOS E, in	Equiv. AWDT	Aty	Sat.	Heavy	Bus	Lane	green /
FT, Funclass	# lanes	vphpl (Cap1hr1ln)	(0.09 in pkhr)	pe	Flow Rate	Vehicle Fhv	Block Fbb	Utiliz. Flu	cycle, Fgrn
1 Centroid	7	10,000							
2 Principle Arterial	1	930	21,000	3	1900	0.96	0.98	1	0.52
2 Principle Arterial	2	892	40,000	3	1900	0.96	0.99	0.95	0.52
2 Principle Arterial	3	854	57,000	3	1900	0.96	0.99	0.91	0.52
3 Minor Arterial	1	857	19,000	3	1900	0.96	1	1	0.47
3 Minor Arterial	2	814	36,000	3	1900	0.96	1	0.95	0.47
3 Minor Arterial	3	780	52,000	3	1900	0.96	1	0.91	0.47
4 Major Collectors	1	666	15,000	3	1700	0.98	1	1	0.40
4 Major Collectors	2	633	28,000	3	1700	0.98	1	0.95	0.40
5 Minor Collectors	1	515	11,000	3	1500	0.98	1	1	0.35
6-8 Unused (USTM uses 7-8)									
9 innovative intersection, cross-street	2	821	36,000		1900	0.96	1	1	0.45
10 innovative intersection, primary st.	3	1,003	67,000		1900	0.96	1	1	0.55
11 High spd Multilane Hwy	3	912	61,000		1900	0.96	1	1	0.50
12-21 Unused									
22-24 Rural Hwy (P,M,C)	N/A	773			1400	0.92	1	1	0.60

	Cap, x-sec	Cap1hr1ln	AWDT	Ln	Sat.	PHF	Fle	Fhv	Aux
29 Fwy: system-to-system loop ramp	1,758	1,758	20,000	1	2000	0.95	1	0.925	0
30 Fwy: Lower spd, higher access CD	2,141	1,070	24,000	2	;20% more capacity than similar FT 2				
31 Fwy: lower capacity	5,760	1,920	128,000	3	2300	0.95	0.95	0.925	0
32 Fwy: higher capacity	6,705	2,235	149,000	3	2400	0.95	0.95	0.925	700
33 Fwy: High spd CD (same as 29)	1,758	1,758	20,000	1	2000	0.95	1	0.925	0
34 Fwy: HOV lanes	2,280	2,280	25,000	1	2400	0.95	1	1	0
35 Fwy: Rural/High spd (same as 31)	5,760	1,920	128,000	3	2300	0.95	0.95	0.925	0
36 Fwy: On ramp	1,300	650	14,000	2					
37 Fwy: Off ramp (same as FT 2)	1,962	981	22,000	2	Same as FT 2, but 10% higher Fgrn				
38 Fwy: Managed Ln access		Same as 34							
39 Fwy: Toll lanes		Same as 34							
40 Fwy: Tollway		Same as 34							
42-44 One-way couplet (P,M,C)	Same as 2,3,4, but factored by 1.20 for better green time from reduced phases								

#### 2-way AWDT

#### Non-freeway calculations & adjustments

Cap1hr1ln = \_SatRate \* Fhv \* Fbb \* Flu \* Fgrn \* Fatype

FT 2-5 is factored up or down by the following Fatype factors

	1	2	3	4	5
	Rural	Trans	Sub.	Urb.	CBD
	1.10	1.05	1.00	0.95	0.90

\* An internal calculation tries to detect the likelihood of protected lefts at an intersection, and reduces Fgrn by .05

#### Freeway calculations & adjustments

Cap1hr = (Sat \* LANES \* PHF \* Fle \* Fhv) + AuxVolAtCapacity ;AuxVol = 0 for FT 31; 700 for FT 32

Cap1hr1ln = Cap1hr / LANES ;distributes AuxVolAtCapacity across the GP lanes

FT 31-32 capacities are reduced by "Lane Efficiency" factors (Fle)	3-ln	4-ln	5-ln	6-ln	7+ln
Fle	0.95	0.91	0.88	0.86	0.84

Fhv = 1/(1+ PCThv \* (Ehv - 1)) Ehv = 2.0 (Meaning a heavy vehicle has effect of 2 autos in urban areas)

\* V7.0 currently assumes 8% trucks on all FT 31-32, which makes Fhv = .925.

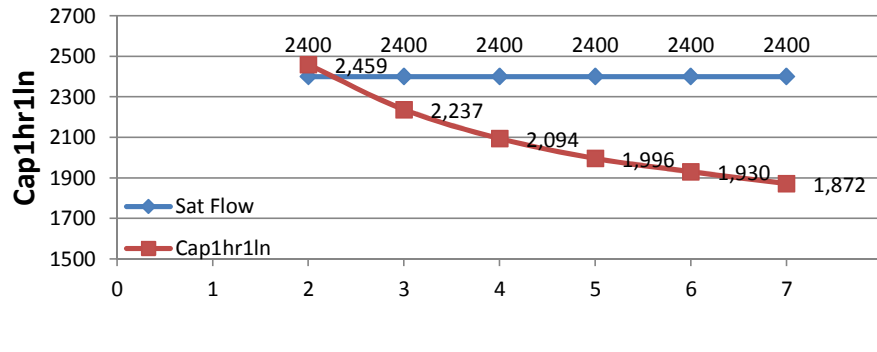
\* It is possible to connect this to a link attribute (PCThv by location), or to a truck model

The base year calibrated network also has "CFAC07", which if not zero, will be multiplied by Cap1hr1ln

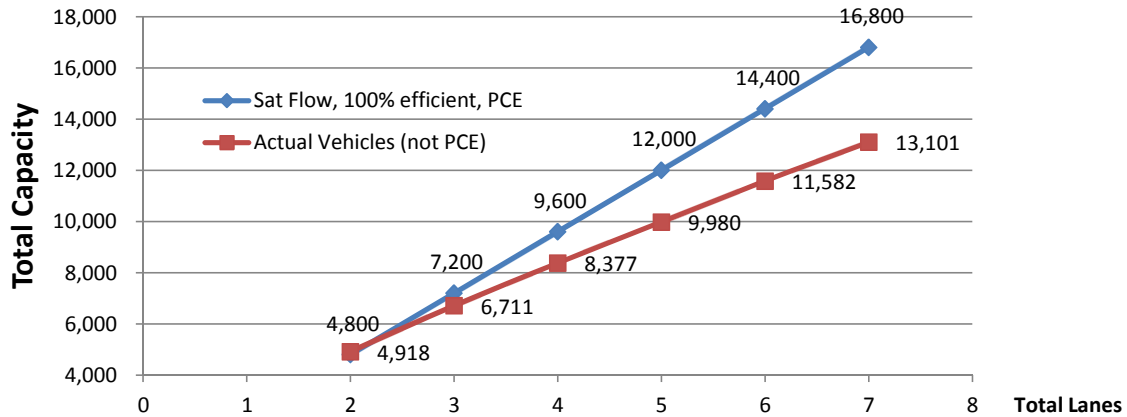
CFAC < 1 means the road has less capacity than normal (side friction, heavy cross streets, no center turn lane, single-left pockets, no right pockets, etc)

CFAC > 1 means the road has better capacity than normal (good access control, light cross streets, high-efficiency intersections, etc).

### Total Capacity per Hour per Lane, FT 32 Freeway



### Total Hourly Capacity per Direction, FT 32 Freeway



### Total Daily Capacity, Both Directions, FT 32 Freeway

