

South Coast Air Quality Management District Methods Program – Factors Tables

Adjustments (A) on ADT for auto trips replaced by bike trips from the bike facility

ADJUSTMENT FACTORS					*and non-university towns < 250,000
BIKE FACILITY CLASS	AVERAGE DAILY TRAFFIC (ADT)	LENGTH OF BIKE PROJECT (IN ONE DIRECTION)	ADJUSTMENT FACTORS FOR CITIES WITH POPULATION > 250,000*	ADJUSTMENT FACTORS FOR UNIVERSITY TOWNS WITH POPULATION < 250,000	
Class 1 (path) and Class 2 (lane)	ADT < 12,000 vehicles per day	<1 mile	.0019	.0104	
		>1 and <2 miles	.0029	.0155	
		> 2 miles	.0038	.0207	
Class 1 (path) and Class 2 (lane)	12,000<ADT<24,000 vehicles per day	<1 mile	.0014	.0073	
		>1 and <2 miles	.0020	.0109	
		> 2 miles	.0027	.0145	
Class 2 (lane)	24,000<ADT<30,000 vehicles per day MAXIMUM IS 30,000	<1 mile	.0010	.0052	
		>1 and <2 miles	.0014	.0078	
		> 2 miles	.0019	.0104	

Credit (C) for activity centers near the project

ACTIVITY CENTER CREDITS		
Types of activity centers: Bank, church, hospital or HMO, light rail station (park and ride), office park, post office, public library, shopping area or grocery store, university or junior college.		
Count your activity centers. If there are:	Credit (C)	Credit (C)
	Within 1/2 mile	Within 1/4 mile
At least 3	.0005	.0010
More than 3 but less than 7	.0010	.0020
7 or more	.0015	.0030

Emissions Factors (ROG, NOx, PM2.5, CO)

Table 3 Average Auto Emission Factors

(Fleet of Light-Duty Passenger Vehicles, Light-Duty Trucks, and Motor Cycles)

Analysis Period or Project Life	1-5 Years (2011-2015)	6-10 Years (2011-2020)	11-15 Years (2011-2025)	16-20 Years (2011-2030)
ROG				
VMT (g/mile)	0.191	0.153	0.132	0.119
commute trip ends (g/trip end)	0.764	0.614	0.521	0.462
average trip ends (g/trip end)	0.584	0.470	0.399	0.353
NO_x				
VMT (g/mile)	0.217	0.172	0.146	0.130
commute trip ends (g/trip end)	0.303	0.233	0.189	0.162
average trip ends (g/trip end)	0.298	0.231	0.189	0.162
PM_{2.5}				
VMT (g/mile)	0.087	0.087	0.087	0.087
running exhaust only (g/mile)	0.002	0.002	0.002	0.002
tire and brake wear (g/mile)	0.018	0.018	0.018	0.018
road dust (g/mile)	0.022	0.022	0.022	0.022
commute trip ends (g/trip end)	0.006	0.004	0.004	0.004
average trip ends (g/trip end)	0.003	0.003	0.003	0.004
CO				
VMT (g/mile)	2.239	1.783	1.518	1.356
commute trip ends (g/trip end)	6.046	4.847	4.083	3.593
average trip ends (g/trip end)	4.248	3.396	2.853	2.504

Source: EMFAC2011-LDV, statewide average annual emissions
 EMFAC2011 RTS Output runs use 50% relative humidity and 75 degrees Fahrenheit temperature.
 PM2.5, road dust: statewide average annual PM2.5 emission factor, based on US EPA's Compilation of Air
 Pollutant Emission Factors, Vol. 5 (AP-42, Chapter 13.2.1, Jan. 2011), 2008 VMT from EMFAC2011-SG, and ARB's
 Miscellaneous Process Methodology 7.9, Entrained Paved Road Travel, Paved Road Dust (updated Jan. 2013).