

Appendix E Operation Emissions Mitigation

E.1 Introduction

The mitigation measures listed in Table E.1 include estimates of their ability to reduce vehicle trips and/or emissions. Incorporate as many feasible mitigation measures into the project as possible in order to substantially lessen or avoid significant air quality impacts. The emission reduction factors are additive and can be combined without limitation. Use Table E.1 to calculate the project's operation emission reduction factor. The emission reduction factors in Table E.2 are percents. For example, an emission reduction factor of 1.0 means that the measure would result in a 1.0% reduction in project emissions.

Table E-1 Operation Emissions Reduction

Mitigation Measures		Emission Reduction Factor
Measure Number	Implementing Mechanism (Condition of Approval, etc.)	
Total Trip Reduction Factor (%)		

- List each mitigation measure included in the project by mitigation measure number. Specify the mechanism or process by which the measure will be implemented. Enter the corresponding emission reduction factor for each mitigation measure.
- Enter the sum of all emission reduction factors in the last row of Table E-1.
- Transfer the total emission reduction factor to line two of Table 5.4 in Chapter 5 for each pollutant.

Table E-2 Mitigation Measures

No.	Description	Development Type	Emission Reduction Factor
Bicycle/Pedestrian/Transit			
1	Non-residential projects provide bicycle lockers and/or racks	Commercial	0.5
3	Non-residential projects provide personal showers and lockers	Commercial	0.5
4	Bicycle storage (Class I) at apartment complexes or condos without garages	Residential	0.5
5	Entire project is located within ½ mile of an existing Class I or Class II bike lane and provides a comparable bikeway connection to that existing facility	Residential Commercial Mixed	1.0
6	The project provides for major pedestrian facilities and improvements such as overpasses and wider sidewalks	Residential Commercial Mixed	1.0
7	Bus service provides headways of 15 minutes or less for stops within ¼ mile; project provides essential bus stop improvements (i.e., shelters, route, information, benches, and lighting).	Commercial	1.0
9	High density residential, mixed, or retail/commercial uses within ¼ mile of existing transit, linking with activity centers and other planned infrastructure.	Residential Commercial Mixed	2.0 for light rail, 1.0 for bus only
Parking			
11	Employee and/or customer paid parking system (no validations)	Commercial	3.0
12	Provide minimum amount of parking required.	Commercial Mixed	0.5
13	Provide parking reduction: Office 25%, Medical office 8%, Commercial 5%, Industrial 10%. Additional 10-20% if located along transit station (special review of parking is required).	Commercial Mixed	2.5
14	Provide grass paving or reflective surface for unshaded parking lot areas, driveways, or fire lanes that reduce standard paving by 10% or more.	Residential Commercial Mixed	0.5
15	Increase parking lot shading by 20% over code.	Residential Commercial Mixed	1.0
16	Provide electric vehicle charging facilities	Residential Commercial Mixed	1.0
21	Provide a parking lot design that includes clearly	Commercial	0.5

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	marked and shaded pedestrian pathways between transit facilities and building entrances		
Commercial Building Design			
23	Office floor area ratio is 0.75 or greater within ¼ mile of an existing transit stop.	Commercial Mixed	2.5 for light rail, 1.5 for bus only
24	Setback distance is minimized between development and existing transit, bicycle, or pedestrian corridor.	Commercial Mixed	1.0
25	Setback distance is minimized between development and neighboring properties.	Commercial Mixed	0.5
Residential Development			
26	Average residence density 7 d.u. per acre or greater.	Residential	1.5, 3.0, 4.5
27	Multiple and direct street routing (grid style)	Residential Commercial Mixed	2.5
28	Granny Flats – Have ancillary “granny units” (requires Special Development Permit but no Accessory Structure Use Permit)	Residential	1.0
Mixed Use			
29	Development of projects predominantly characterized by properties on which various uses, such as office, commercial, institutional, and residential, are combined in a single building or on a single site. A “single site” may include contiguous properties.	Mixed	3.0
32	Separate, safe, and convenient bicycle and pedestrian paths connecting residential, commercial, and office uses.	Residential Commercial Mixed	2.0
33	The project provides a development pattern that eliminates physical barriers such as walls, berms, landscaping, and slopes between residential and non-residential uses that impede bicycle or pedestrian circulation.	C, M	1.0
Building Component Measures			
41	Install only natural gas fireplaces	Residential	1.0
42	Install Energy Star or ground source heat pumps.	Residential Commercial Mixed	0.5
43	Install ozone destruction catalyst on air conditioning systems in consultation with El Dorado APCD	Residential Commercial Mixed	2.5
44	Install Energy Star labeled roof materials.	Commercial	0.5
47	Install roof photovoltaic energy systems as a standard feature on new homes.	Residential	2.5

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48	Exceed Title 24 energy standards for cooling energy by 25% or comply with SMUD Advantage (Tier II) energy standards.	Residential	0.5
49	Exceed Title 24 energy standards for cooling energy by 50%, or comply with SMUD Advantage Plus (Tier III) or EPA/DOE Energy Star Home energy standards.	Residential	1.0
50	Orient 75 or more percent of homes and/or buildings to face either north or south (within 30 degrees of N/S), and include shading master plan.	Residential	0.5
TDM and Miscellaneous Measures			
51	Include permanent TMA membership and funding requirement. Funding to be provided by Community Facilities District or County Service Area or other non-revocable funding mechanism.	Residential Commercial Mixed	2.5
59	Make physical development consistent with requirements for neighborhood electric vehicles.	Residential	1.5
63	Implement Clean Air Business Practices such as using low-emission delivery vehicles, contract with alternative-fuel waste hauling companies, etc., in consultation with El Dorado APCD.	Commercial	TBD
64	Provide electric shuttle to transit stops.	Residential Commercial Mixed	2.0
65	Provide a complimentary cordless electric lawnmower to each residential buyer.	Residential	2.0
67	Transit pass subsidy (100%) and/or commute alternative allowance.	Commercial	1.5
Innovative Strategies			
99	Other proposed strategies in consultation with El Dorado APCD	Residential Commercial Mixed	TBD

Note: “TBD” means the emission reduction factor must be developed in consultation with the District.