

Appendix II – Performance Metrics for Commercial Avenue Interchange Project

Measure	Metric	Build	Future No Build	Change	Methodology	Data/Assumptions
Congestion Reduction	Project Area, Corridor, County, or Regionwide VMT per capita and total VMT	Per Capita: 24.555 Total: 12,704,524	Per Capita: 24.558 Total: 12,706,245	Per Capita: 0.003 Total: 1,721	VMT data was obtained from TCAG Travel Demand Model (RTDM).	VMT data was the data used for the conformity output. Tulare County Population from the SOEC model file.
	Person Hours of Travel Time Saved	14,159,496	0	14,159,496	Cal-B/C Sketch Version 7.1 Calculation	Cal-B/C 20-year values
	Daily Vehicle Hours of Delay	6,500.5	9,207.6	2,707.1	ADT * Avg. Travel Time	Cal-B/C 20-year values (Daily Veh Hrs Travel Time Reduced)
	Percent Change in Non-Single Occupancy Vehicle Travel*	N/A				
	Per Capita and Total Person Hours of Delay per Year*	P.C: 485,124 Total: 824,711	P.C: 687,155 Total: 1,168,164	P.C: 202,031 Total: 343,453	Avg. Person Trips per Year * Avg. Travel Time P.C. = (Total/Average Vehicle Occupancy)	Cal-B/C 20-year values AVO from FHWA factors for computing travel time reliability.
	Passengers per Vehicle Service Hour*	N/A				
Bicyclist/Pedestrian Screen Line Counts*	N/A					
System Reliability	Peak Period Travel Time Reliability Index	1.00	1.27	0.27	Peak Period / Non-Peak Period Avg. Travel Time	Cal-B/C 20-year values
	Transit Service On-Time Performance	N/A				

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Safety	Number of Fatalities		2	0	Previous 3-year Accident Data	Table B 3-year Accident Data
	Rate of Fatalities per 100 Million VMT	0.005	0.007	0.002	Cal-B/C Sketch Version 7.1	Basic Average Accident Rate Table For Highways
	Number of Serious Injuries		35	0	Previous 3-year Accident Data	Table B 3-year Accident Data
	Number of Serious Injuries per 100 Million VMT	0.320	0.329	0.009	Cal-B/C Sketch Version 7.1	Basic Average Accident Rate Table For Highways
	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries		0	0		Pedestrian Data Unavailable
	Number or Rate of Property Damage Only and Non-Serious Injury Collisions*		144	0	Previous 3-year Accident Data	Table B 3-year Accident Data
	Accident Cost Savings*	\$84.6 mill.	0	\$84.6 mill.	Cal-B/C Sketch Version 7.1 Calculation	20-year Benefits

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Economic Development	Jobs Created (Direct and Indirect)	733 Jobs created 469 direct/indirect 264 induced	0 Jobs Created	733	Job creation = Caltrans methods of Eleven full time equivalent (FTE) jobs per \$1 million in spending. Federal Multiplier (RIMS II-type) based on project cost. Direct/indirect/induced calculation comes from the American Recovery and Reinvestment Act 2009 Government Spending methodology (Table 5) which assumes 64% of jobs are direct/indirect and 36% are induced	Job creation calculations are based on total cost of the project, \$66.68 million.
Air Quality & GHG	Particulate Matter (PM 2.5 PM 10)	PM 2.5: -6 PM 10: -6	PM 2.5: 0 PM 10: 0	PM 2.5: 6 PM 10: 6	Cal-B/C Sketch Version 7.1 Calculation	Total Tons – 20-years
	Carbon Dioxide (CO ₂)	-74,125	0	74,125		
	Volatile Organic Compounds (VOC)	-10	0	10		
	Sulphur Dioxides (SO _x)	-1	0	1		
	Carbon Monoxide (CO)	124	0	124		
	Nitrogen Oxides (NO _x)	-42	0	42		
Cost Effectiveness	Cost Benefit Ratio	3.0	0	3.0	Cal-B/C Sketch Version 7.1 Calculation	Cal B/C includes analysis of life-cycle costs, benefits, net present value, travel time savings, vehicle operating costs savings, accident and emission cost savings and person hours of time saved. Model uses 20 years.

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Accessibility	Number of Jobs Accessible by Mode	N/A				
	Access to Key Destinations by Mode	N/A				
	% of Population Defined as Low Income or Disadvantaged within ½ mile of rail station, ferry terminal, or high-frequency bus stop	N/A				
System Preservation <i>(Pavement/Bridge Rehabilitation only)</i>	Pavement Condition Index	N/A				
	Bridge Condition Rating for Bridge Deck, Superstructure, Substructure	N/A				
Noise Level <i>(Soundwalls only)</i> <i>(For reporting only)</i>	Number of Receptors					
	Properties Directly Benefited					
	Number of Decibels					

*Indicates an optional metrics