



Appendix R:

DEFAULT AND ADJUSTED IDAS VALUES

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Table R-1. Default and Adjusted IDAS Values

Impact	Default Value	Recommended Value
Central Control Signal Coordination		
<p>Select average travel demand variability range: (many special events; demand predictable, peak direction variable; predictable, demand varies <10%)</p> <p>Select impact range: (high 14% capacity increase; medium 10% capacity increase; low 8% capacity increase)</p> <p>Select average congestion range: (light v/c <0.7; moderate v/c 0.7<x<0.9; heavy v/c >0.9)</p>	N/A	<p>Travel demand variability range: demand predictable, peak direction variable</p> <p>Select impact range: medium 10% capacity increase</p> <p>Select average congestion range: moderate v/c 0.7<x<0.9</p>
<p>Select time interval between signal timing plan modifications</p>	<p>>8 years; >4 years; >2 years; annually; or frequently</p>	<p>>4 years</p>

Impact	Default Value	Recommended Value
Actuated Control Signal Coordination		
<p>Select average travel demand variability range: (many special events; demand predictable, peak direction variable; predictable, demand varies <10%)</p> <p>Select impact range: (high 14% capacity increase; medium 10% capacity increase; low 8% capacity increase)</p> <p>Select average congestion range: (light v/c <0.7; moderate v/c 0.7<x<0.9; heavy v/c >0.9)</p>	N/A	<p>Travel demand variability range: many special events</p> <p>Select impact range: high 20% capacity increase</p> <p>Select average congestion range: moderate v/c 0.7<x<0.9</p>
Select time interval between signal timing plan modifications	>8 years; >4 years; >2 years; annually; or frequently	>4 years
Actuated Ramp Metering		
Capacity change on ramp	-50%	-15%
Accident rate reduction on ramp	38%	20%
Capacity change on freeway	5.50%	5%
Accident rate reduction on freeway	38%	20%
Incident Detection/Verification/Response/Management Combined		
Incident duration reduction	55%	40%
Fuel consumption reduction	42%	30%
Accident rate reduction-fatality	10%	5%
Accident rate reduction-injury	0%	0%
Accident rate reduction-property damage	0%	0%
Emission rate reduction-CO	42%	40%
Emission rate reduction-HC/ROG	42%	40%
Emission rate reduction-NOX	42%	40%
Emission rate reduction-PM	42%	40%

Impact	Default Value	Recommended Value
Highway Advisory Radio		
Number of roadway elements	0	1
Vehicles tuned to broadcast	25%	20%
Drivers hearing broadcast that save time	25%	15%
Time that extreme traffic conditions are occurring	10%	5%
Average amount of time saved by each traveler under extreme traffic conditions	4 minutes	2 minutes
Freeway Dynamic Message Sign		
Vehicles passing sign that save time	20%	15%
Time that sign is turned on and is disseminating information	10%	5%
Average amount of time saved by each traveler saving time	3 minutes	2 minutes
Railroad Grade Crossing Monitors		
Average annual fatalities per crossing	0.0028	0.0028
Average annual injuries per crossing	0.0091	0.0091
Average annual property damage only per crossing	0.0114	0.0114
Accident reduction rate - fatality	65%	20%
Accident reduction rate - injury	65%	20%
Accident reduction rate - property damage	65%	20%
CCTV		
No impact values	N/A	N/A