



ALAMEDA COUNTY TRANSPORTATION COMMISSION
I-680 Sunol Express Lane
Tolling Overview



I-680 Sunol Smart Carpool Lane Joint Powers Authority (Sunol JPA)
 Liz Rutman, Director of Express Lane Implementation and Operations
 January 14, 2019

Sunol I-680 Southbound Express Lane Location Map



I-680 Sunol Southbound Express Lane

- 3 points of entry:
 - Start of lane (Andrade Rd)
 - Washington Ave
 - Mission Blvd / SR 262
- 3 points of exit:
 - South of Auto Mall Pkwy
 - Jacklin Rd
 - End of lane (south of Calaveras Rd / SR 237)
- Buffer-separated from the GP lanes



I-680 Sunol Express Lane Policies - 2010

TOPIC	Initial Setting / Description	Notes
Hours of Operation	Monday – Friday, 5 am – 8 pm	Approved by HOV Lane Committee (Caltrans/MTC/CHP)
Occupancy Requirement	HOV 2+	Approved by HOV Lane Committee (Caltrans/MTC/CHP)
Dynamic Pricing	Based on real-time traffic	Updated every 3 minutes
Minimum Toll Rate	<ul style="list-style-type: none"> AM peak minimum \$1.00 Non-AM peak minimum \$0.30 	Revised to \$0.30 at all times in 2011 Revised to \$0.50 at all times in 2017
Maximum Toll Rate	<ul style="list-style-type: none"> No maximum established Initial cap for algorithm calculations \$15.00 	<ul style="list-style-type: none"> Staff will implement to optimize the operations of the facility Staff to have flexibility to raise toll as needed to manage traffic flow Maximum Incremental Toll Increase of \$5.00

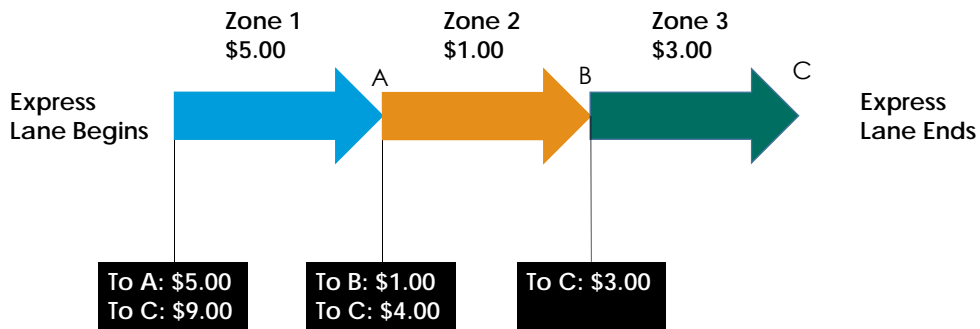


I-680 Sunol Express Lane Policies - 2010

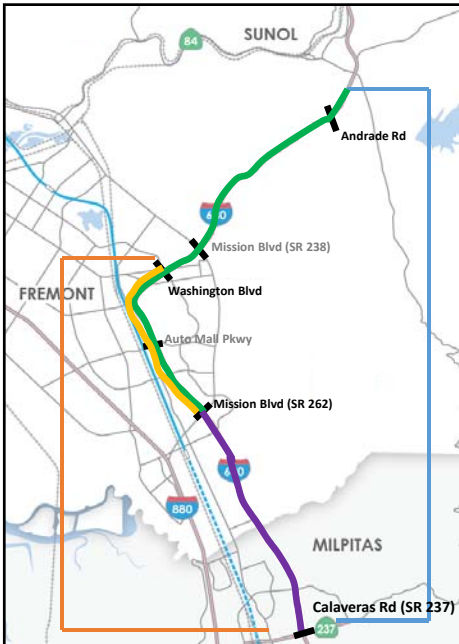
TOPIC	Initial Setting / Description	Notes
FasTrak® Required	FasTrak® toll tag is required for all toll-paying users	
Toll Waiver/Reduction	Under normal circumstances the tolls should not be reduced for any reason; however there is potential for instances when a reduction or waiver could be authorized. These include: <ul style="list-style-type: none"> Incidents that cause delays and affect travel time Lane closures and interruption of services Equipment failures that cause confusion to motorists Vehicle breakdowns in the EL 	Traffic Incident Management Plan developed and approved by Caltrans and Sunol JPA



Additive Zone Tolling



Current I-680 Sunol SB EL Tolling Structure



- 5 possible toll rates
- Not additive zone tolling due to ingress/egress locations
- Static Time-of-Day Pricing

Current Toll Parameters Tuesday - Thursday

Start – End	Min Toll	Max Toll
Andrade – Mission 262	\$1.00	\$8.75
Andrade – Calaveras	\$1.25	\$9.50
Washington – Mission 262	\$0.50	\$6.00
Washington – Calaveras	\$0.75	\$7.00
Mission 262 – Calaveras	\$0.50	\$2.75



Proposed Future I-680 Sunol EL Tolling Structure

- Additive zone tolling
- 3 southbound zones
 - Zones S1, S2 continuous access
 - Zone S3 is buffer separated from GP lanes
- 2 northbound zones – all continuous access
- Zone breaks based on origin/destination
- Long zones (~ 4 miles) discourage weaving

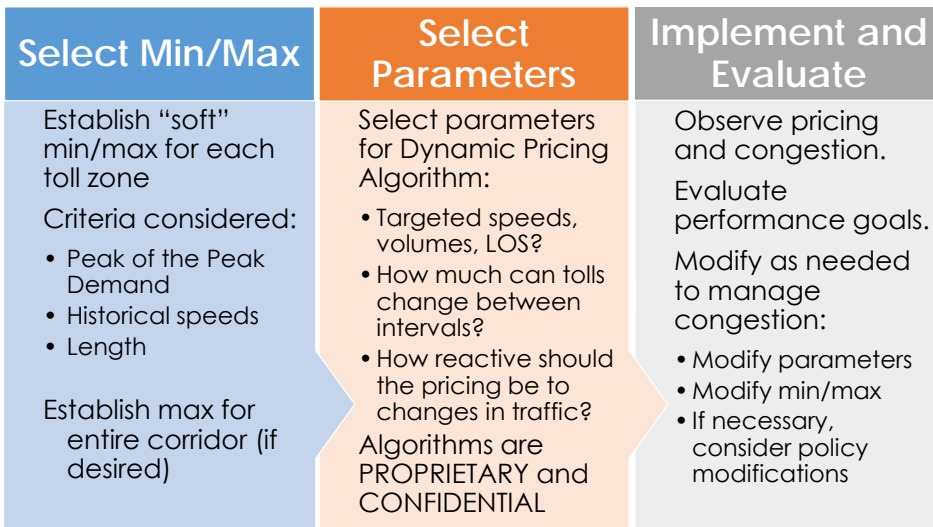


Dynamic Pricing Parameter Inputs

- Minimum and Maximum toll for each zone
- Maximum toll for entire corridor, if desired
- Factors to consider for dynamic pricing:
 - Desired performance goals
 - Frequency of pricing calculations (typically 3 – 5 minutes)
 - Pricing policies
 - Weighting of express vs general purpose lane traffic congestion
 - Pricing increments
 - Cap in price change from one interval to the next



Toll Rate Setting Process



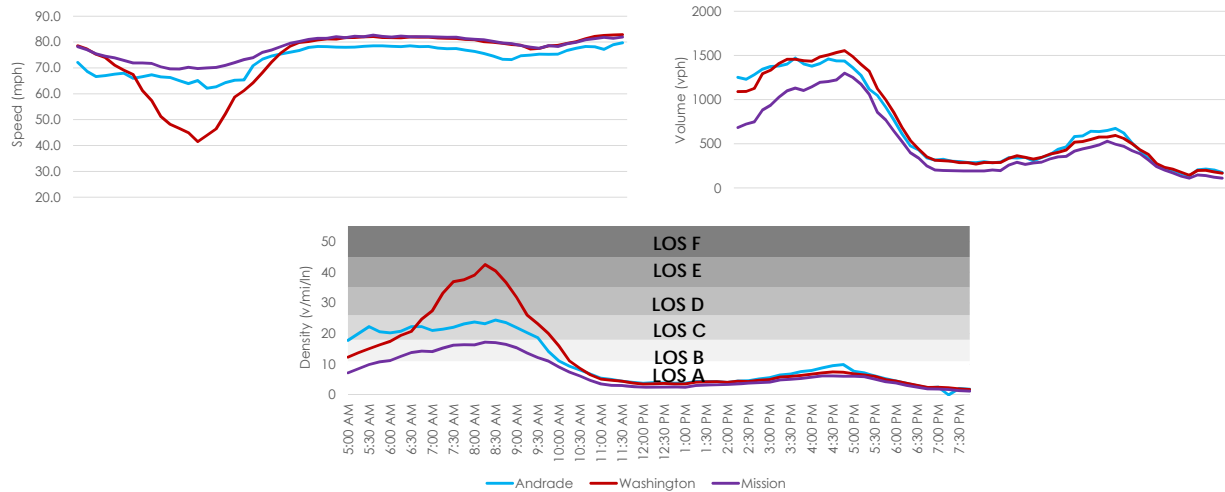
Express Lane Performance Goals

Volume (veh/hr)	Speed (mph)									
	25	30	35	40	45	50	55	60	65	
750	30.0	25.0	21.4	18.8	16.7	15.0	13.6	12.5	11.5	
800	32.0	26.7	22.9	20.0	17.8	16.0	14.5	13.3	12.3	
850	34.0	28.3	24.3	21.3	18.9	17.0	15.5	14.3	13.1	
900	36.0	30.0	25.7	22.5	20.0	18.0	16.4	15.1	13.8	
950	38.0	31.7	27.1	23.8	21.1	19.0	17.3	16.0	14.6	
1000	40.0	33.3	28.6	25.0	22.2	20.0	18.2	16.7	15.4	
1050	42.0	35.0	30.0	26.3	23.3	21.0	19.1	17.5	16.2	
1100	44.0	36.7	31.4	27.5	24.4	22.0	20.0	18.3	16.9	
1150	46.0	38.3	32.9	28.8	25.6	23.0	20.7	19.2	17.7	
1200	48.0	40.0	34.3	30.0	26.7	24.0	21.4	20.0	18.5	
1250	50.0	41.7	35.7	31.3	27.8	25.0	22.7	20.8	19.2	
1300	52.0	43.3	37.1	32.5	28.9	26.0	23.6	21.7	20.0	
1350	54.0	45.0	38.6	33.8	30.0	27.0	24.5	22.5	20.8	
1400	56.0	46.7	40.0	35.0	31	28.0	25.5	23.3	21.5	
1450	58.0	48.3	41.4	36.3	32	29.0	26.4	24.2	22.3	
1500	60.0	50.0	42.9	37.5	33	30.0	27.3	25.0	23.1	
1550	62.0	51.7	44.3	38.8	34.4	31.0	28.2	25.8	23.8	
1600	64.0	53.3	45.7	40.0	35.6	32.0	29.1	26.7	24.6	
1650	66.0	55.0	47.1	41.3	36.7	33.0	30.0	27.5	25.4	
1700	68.0	56.7	48.6	42.5	37.8	34.0	30.9	28.3	26.2	
1750	70.0	58.3	50.0	43.8	38.9	35.0	31.8	29.2	26.9	
1800	72.0	60.0	51.4	45.0	40.0	36.0	32.7	30.0	27.7	
1850	74.0	61.7	52.9	46.3	41.1	37.0	33.6	30.8	28.5	
1900	76.0	63.3	54.3	47.5	42.2	38.0	34.5	31.7	29.2	
1950	78.0	65.0	55.7	48.8	43.3	39.0	35.5	32.5	30.0	
2000	80.0	66.7	57.1	50.0	44.4	40.0	36.4	33.3	30.8	
2050	82.0	68.3	58.6	51.3	45.6	41.0	37.3	34.2	31.5	

- Federal Requirement:
 - Minimum 45 mph at last 90% of the time during peak hour over consecutive 180 day period
- State Requirement
 - LOS C or better at all times
 - LOS D permitted for short period of time
- Agency Goals: EL Benefits
 - Speed differentials
 - Reliable travel times



I-680 Sunol SB EL Performance



I-680 Express Lanes – Upcoming Actions

- Formal adoption of Business Rules and Toll Policies – Fall 2019
 - User rules and toll rate policies
 - Regionally consistent with all Bay Area Express Lanes
- Toll Evasion Ordinance – Early 2020
 - Required to use license plates for toll violation noticing
 - FasTrak requirements for toll discounts, including partial CAV tolling
 - Regionally consistent with all Bay Area Express Lanes
- GO LIVE in 2020!



Questions?

For more information, visit
www.AlamedaCTC.org

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