

Approval of Assumptions and Options
for the
405 Express Lanes Toll Policy and Finance Plan

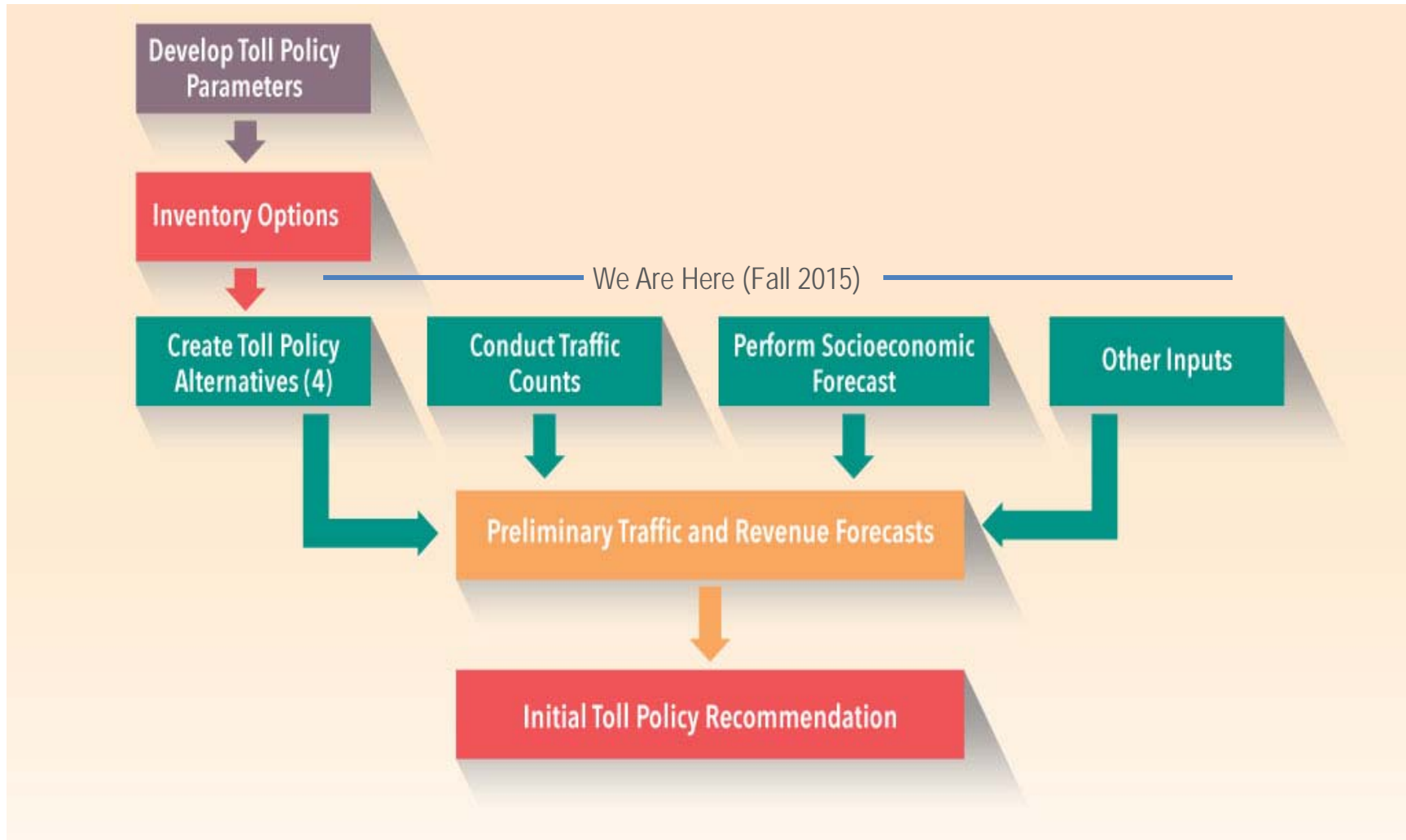


Background

- April 27, 2015:
 - Board approves terms for operating agreement with Caltrans
 - Board directs staff to develop draft toll policy and finance plan

- June – September 2015:
 - Chairman creates Toll Policy and Finance Plan ad hoc
 - Ad hoc provided with research and technical materials
 - Ad hoc provides guidance in development of “Decisions Document”

Initial Toll Policy Development



Proposed Assumptions

Description	Recommendation	Consistent with 91 Express Lanes?
Toll Policy Goals	As drafted	Yes (modified for 405)
Pricing Methodology	Time of Day	Yes (modified for 405)
Peak Toll Adjustments	OCTA 91 Express Lanes	Yes
Non-Peak Toll Adjustments	RCTC 91 Express Lanes	Yes (RCTC)
Hours of Operation	24 – 7	Yes
Access	Intermediate access	No
Non-Toll Revenue: Account Fees	91 Express Lanes	Yes
Non-Toll Revenue: Violations	91 Express Lanes	Yes
Enforcement Approach	Manual and automated	Yes
Prohibited Vehicles/Discounts/Exemptions	Defer High-Occupancy Vehicle (HOV), Clean air and other vehicles pending Stantec Traffic & Revenue Study (T&R)	Pending
Toll Collection	Title 21 compliant transponder	Yes
Options for traffic and revenue (T&R) analysis	Four with a mix of HOV options	Option C

Toll Policy Goals

- Provide express lanes customers with a safe, reliable, predictable commute.
- Optimize throughput at free-flow speeds.
- Increase average vehicle occupancy.
- Balance capacity and demand to serve customers who pay tolls as well as people who rideshare or use transit.
- Generate sufficient revenue to sustain the financial viability of the 405 Express Lanes.
- Ensure all covenants in the financing documents are met.
- Ensure any potential net excess toll revenues are used for Interstate 405 corridor improvements.

Time of Day versus Dynamic Pricing

Description	Time of Day (TOD)	Dynamic
How tolls are calculated	Historical traffic volume	Near real-time traffic volume
How often tolls change	Revisited quarterly	Could be every few minutes
How tolls displayed	Published schedules Signs prior to entrance	Signs prior to entrance
Customer experience	Know before you go Simple to understand	Know when you get to lanes
OCTA experience	20-year proven track record	None
Regional consistency	Consistent with Orange and Riverside County	Consistent with LA and San Diego County

Recommendation:

Adopt TOD pricing, but install dynamic pricing infrastructure to allow for more frequent adjustments during ramp-up and abnormal traffic times and to calibrate toll schedules.

Price for Throughput, Reliability, Predictability

SR-91 Eastbound (Recorded on Friday, May 3, 2013 at 5:15pm)

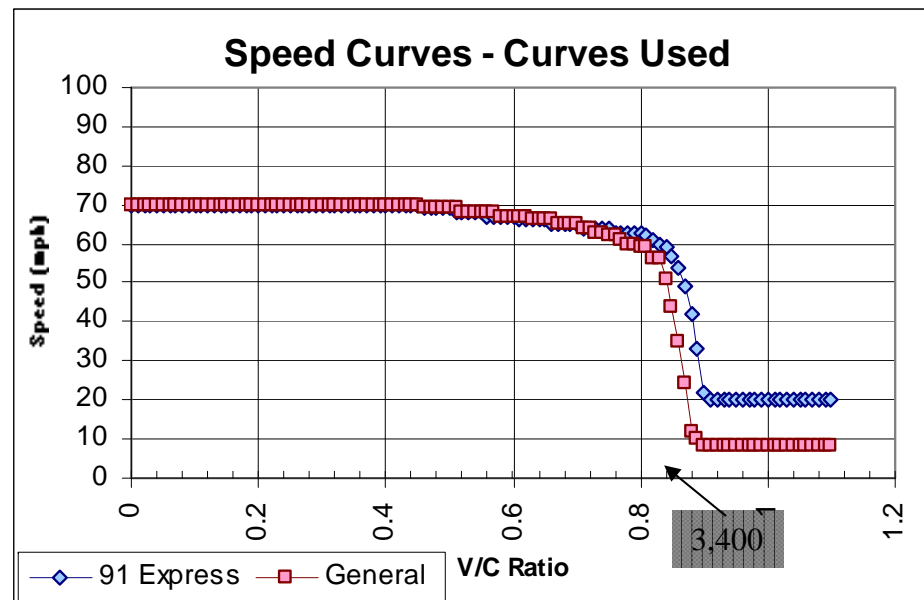


Each Express Lane carries
1,692 vehicles per hour

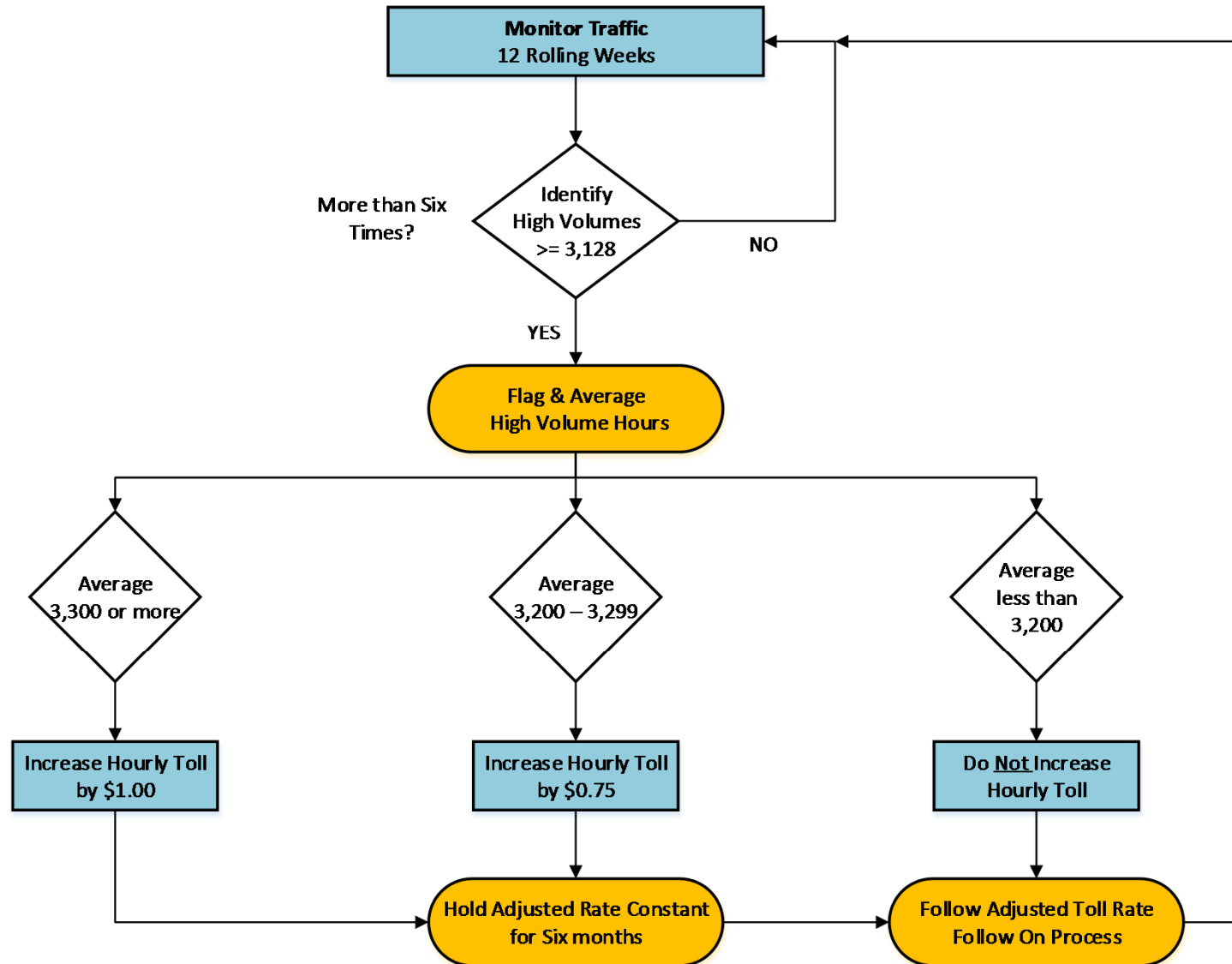
Each congested General Purpose
lane carries **842** vehicles per hour

Speed Predictor Limitations

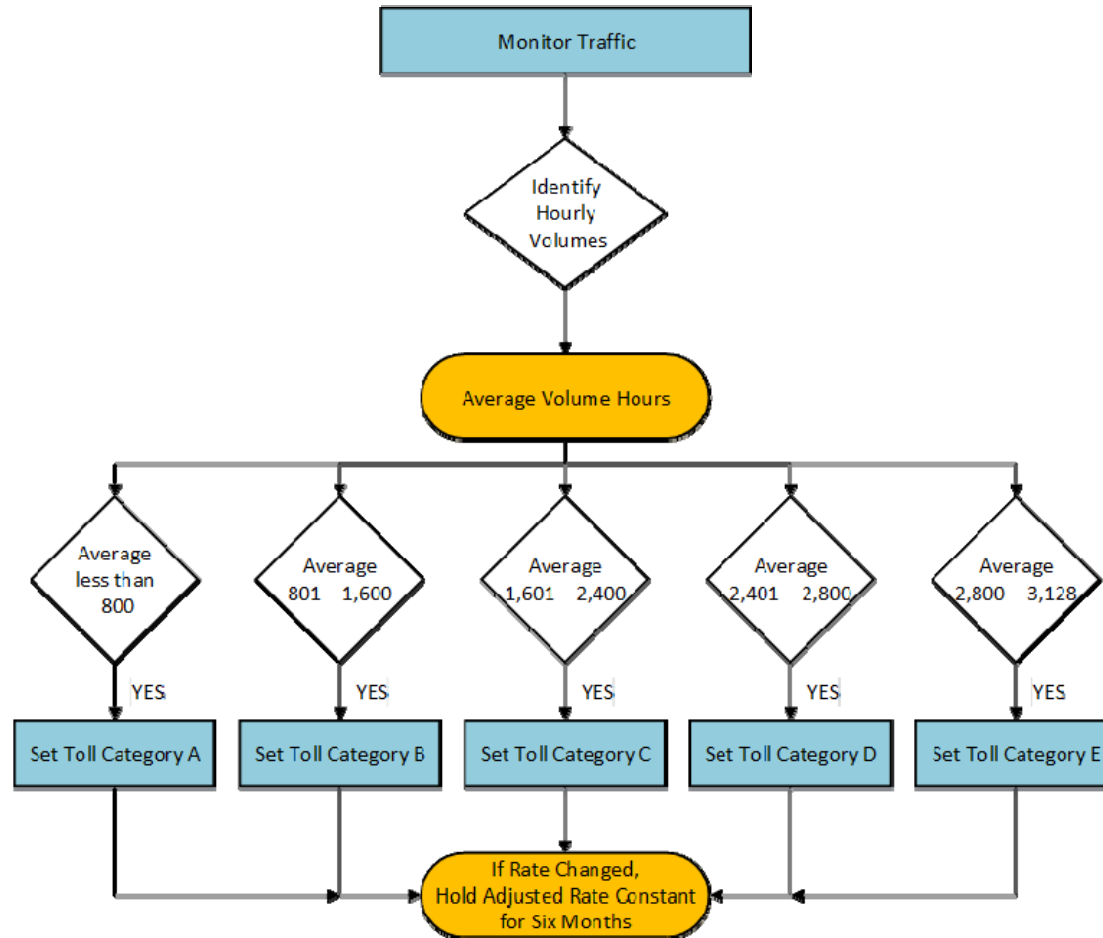
- As volumes approach 3,300 vehicles per hour (vph), speed behavior is unpredictable
- If toll policy is designed for 3,400 vph, daily traffic variations will put conditions in this turbulent region
- Toll policy should be priced for reliable, predictable, free-flow commute



Peak Toll Policy: OCTA 91 Express Lanes



Non-Peak Toll Policy (RCTC)



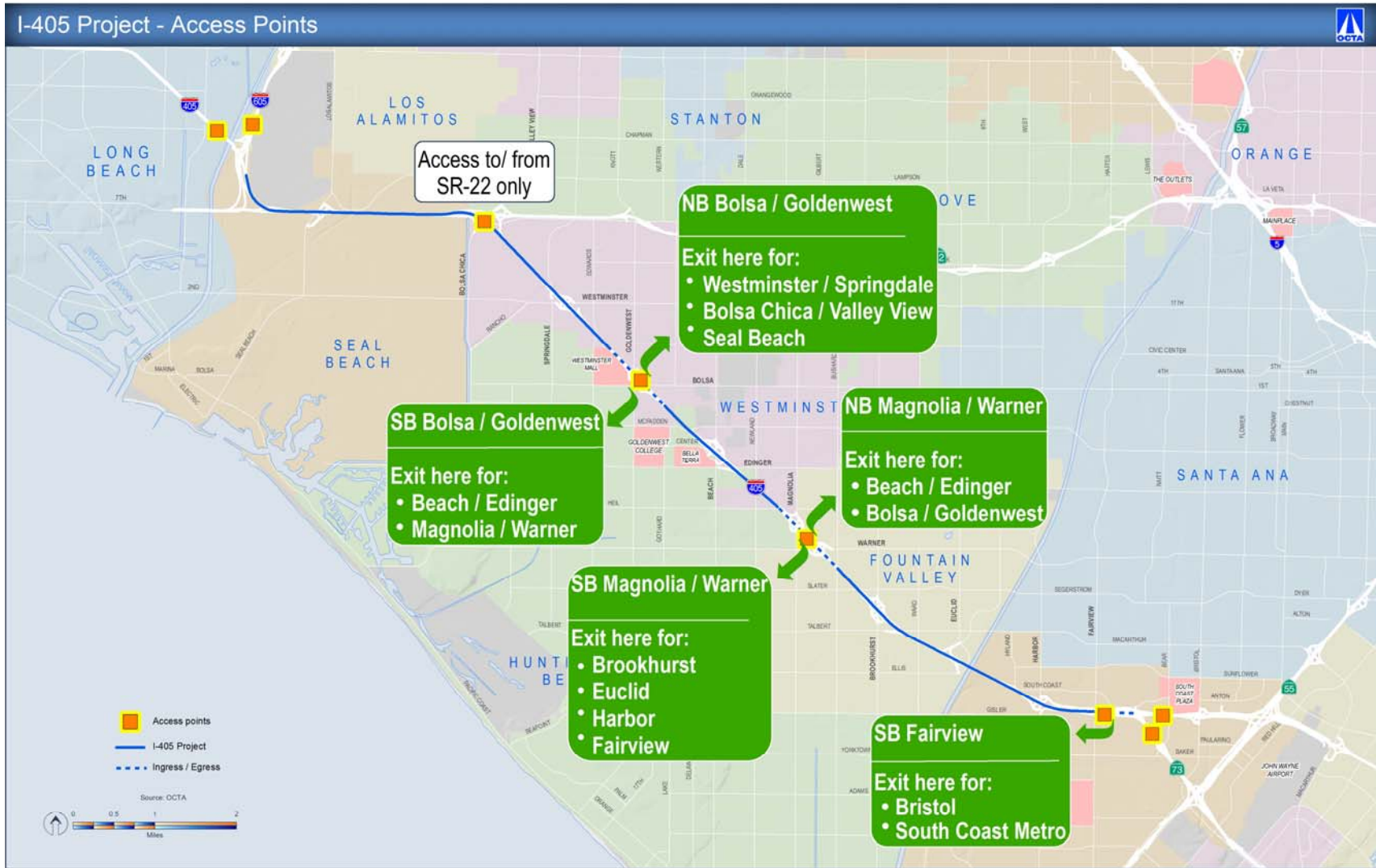
Access Points

Goal(s)	Continuous Access	Intermediate Access
Safety Reliability Predictability Optimal throughput	<ul style="list-style-type: none">• Allows for more weaving• Greater friction• Slower express lanes speeds	<ul style="list-style-type: none">• Safer, more reliable, predictable commute• Less weaving• Operationally superior
Sufficient revenue Bond covenants met	<ul style="list-style-type: none">• Higher violation rates• Financial risk	<ul style="list-style-type: none">• Fewer violations• Less financial risk

Recommendation:

Open with intermediate access but don't preclude consideration of continuous access in the future.

Intermediate Access

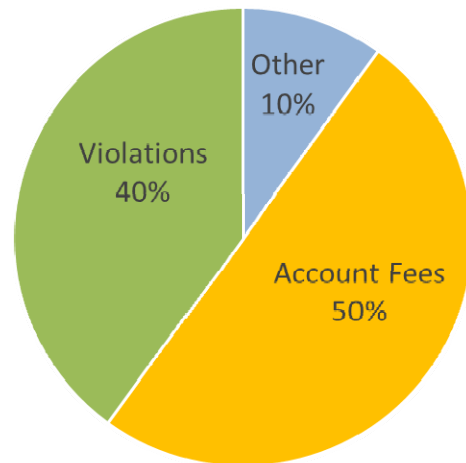


Channelizers Separate Traffic



Non-Toll Revenue: 20% of total revenue

91 Express Lanes - Non-Toll Revenue



Recommendation: Adopt 91 Express Lanes Non-Toll Revenue Policies

* Other = Non-sufficient funds fees, transponder fees, plate read fees, account deactivation fees, etc.

Enforcement Approach

Enforcement minimizes violations

Manual enforcement

- Officers present
- Preferably during peak hours – more traffic, greater revenue potential/loss

Automated enforcement

- Automated License Plate Recognition
- Determines account status
- Enforcement Lights



commendation: Use both manual and automated enforcement

Prohibited Vehicles

91 Express Lanes policy prohibits:

- Vehicles with more than two axles
- Vehicles towing trailers

Recommendation: Adopt 91 Express Lanes policy



Discounts, Exemptions

Recommended exemptions:

- Free trips for in-service public transit vehicles (need to register)
- Free trips for on-duty law enforcement and emergency vehicles

Defer:

- HOV occupancy and toll policy pending traffic and revenue study (T&R)
- Clean Air Vehicle toll policy pending T&R
- Other vehicle discounts pending T&R



oll Collection Method

91 Express Lanes policy:

- Vehicles are required to use a transponder
- License plate reads are utilized for violation purposes

Recommendation:

- Adopt the 91 Express Lanes policy
- Adapt to future technologies



Current Transponder



6C Transponder

Proposed Toll Policy Scenarios

Occupancy	Time of Day	A HOV2+ Free All Times*	B HOV2+ Free Non-Peak**	C 91 Express Lanes Toll Policy	D Revenue Maximization***
HOV2+	Peak	Free	Full Toll	Full Toll	Full Toll
	Non-Peak	Free	Free	Full Toll	Full Toll
HOV3+	Peak	Free	50% Discount	50% Discount	50% Discount
	Non-Peak	Free	Free	Free	Free

Under OCTA/Caltrans Agreement on Terms, facility to open with HOV2+ free policy for no less than 3 years subject to results of the T&R. A variation of this option is to offer HOV3+ free during both peak and non-peak times (if feasible). Tolls rates set higher. Needed for rating agencies - tolls rates set higher.

Getting to Finance Plan



Next Steps

Description	Timeframe
TIFIA Letter of Interest	Dec 9 Finance & Administration Committee Dec 14 Board of Directors
Traffic & Revenue Study Results	Feb/March 2016
Initial Toll Policy Recommendation	Feb/March 2016
Preliminary Finance Plan	Spring 2016