



Strategic Policy and Planning Study Adoption of All Electronic Tolling

June 2012





Four Phases

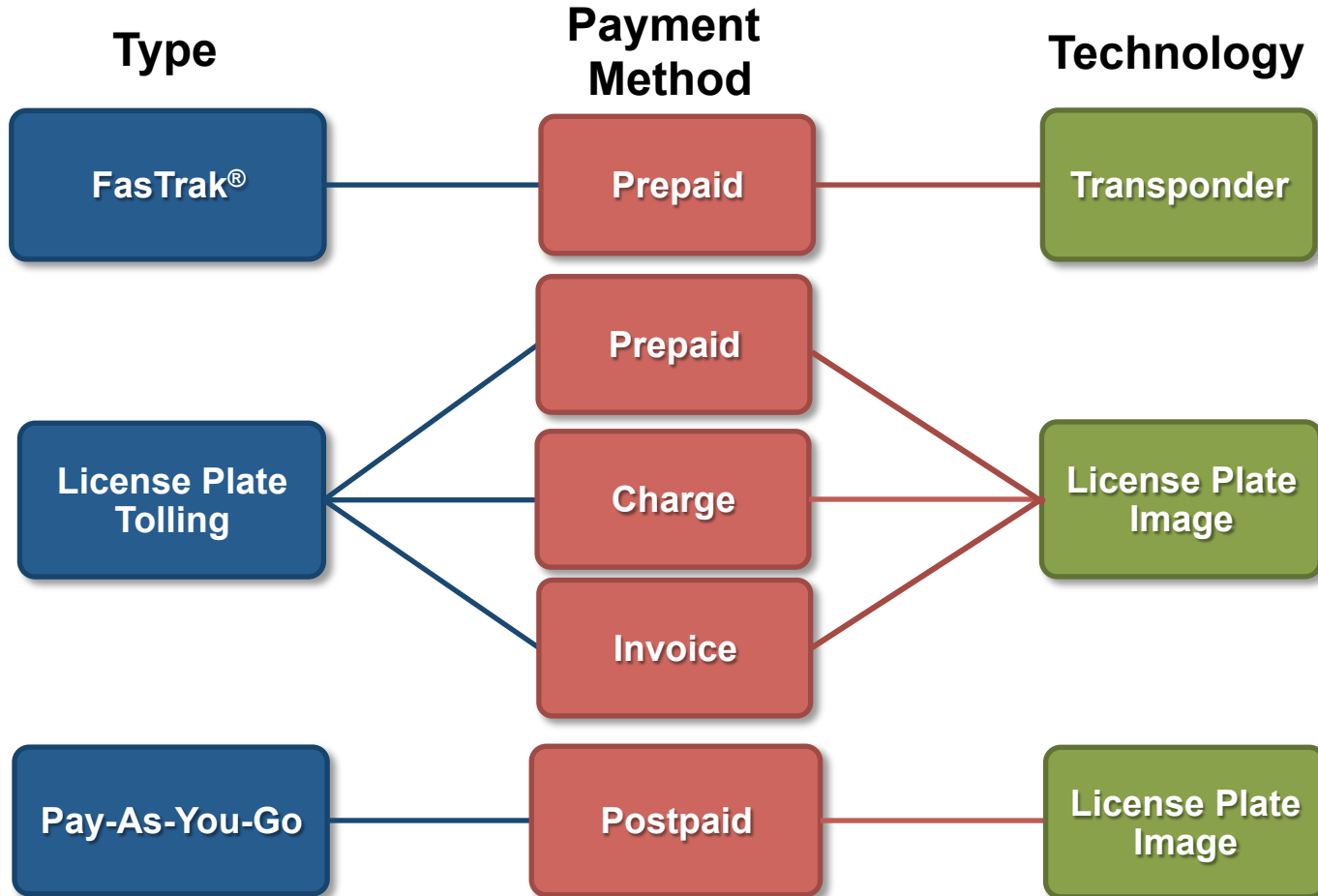
- 1. Phase 1: Tolling Alternatives Study**
(completed September 2010)
 - Inventory, customer survey, alternatives, financial analysis
- 2. Phase 2: All Electronic Tolling (AET) Feasibility Study**
(completed May 2011)
 - Account types, revenue and cost modeling, capital costs
- 3. Phase 3: AET Planning and Design**
 - 3A: Scope, Schedule, Budget, Finance and Marketing Planning
(completed September 2011)
 - 3B: AET Design and Civil Design
(Completed May 2012)
- 4. Phase 4: AET Implementation**
(scheduled completion for October 2013)



All Electronic Tolling on The Toll Roads



The Toll Payment Options





The Toll Payment Process

FasTrak	Transponder	Account Method: prepaid Contact information Toll deducted
License Plate Tolling	License Plate	Account Method: prepaid, charge, invoice Contact information Toll deducted, charged or billed
Pay As You Go	License Plate	Non-account Pay directions on the road - URL Contact — Web, App, Phone, Office Method: charge, check, cash License plate & location 48 hours Toll paid



The Investment

Description	F/E Investment	SJH Investment	Combined
Toll Systems	\$ 2,919,750	\$1,376,720	\$ 4,296,470
Civil Engineering	2,871,172	1,425,106	4,296,278
Marketing	874,349	430,651	1,305,000
Project Management	668,439	279,561	948,000
Toll Systems Oversight	448,800	211,200	660,000
Contingency	1,485,534	987,783	2,473,317
Total	\$ 9,268,044	\$ 4,711,021	\$ 13,979,065

- Detailed analysis of toll systems & facilities by TTI & staff
- Recognition of key role for communications & marketing
- Adequate contingency; however, civil works design not completed or approved by Caltrans
- Projected capital investment savings of \$4.8M compared to current system projected capital investment of \$18.8M



The Projected Traffic Distribution

Distribution of traffic with AET vs. Current System

Foothill/Eastern

	FasTrak	Cash	LPT	Pursuable Violations	Non- Pursuable Violations	Diversion Rate
Current System*	81.4%	16.0%	0%	1.2%	1.4%	0%
AET – TCA Model	83.5%	0%	11.8%	1.5%	1.9%	1.2%

San Joaquin Hills

	FasTrak	Cash	LPT	Pursuable Violations	Non- Pursuable Violations	Diversion Rate
Current System*	79.1%	17.7%	0%	1.6%	1.6%	0%
AET – TCA Model	81.2%	0%	13.4%	1.9%	2.2%	1.2%

* Current System = Baseline

2.1% increase in FasTrak
1.2% diversion rate



The Expected Budgetary Savings

F/E	Current System		
Fiscal Year	Revenue	Operating Costs	Net Revenue
Year 1	\$121.5	\$21.9	\$ 99.6
Year 2	123.0	22.9	100.1
Year 3	128.4	24.0	104.4
Year 4	134.0	25.1	108.9
Year 5	139.8	26.3	113.5
Total	\$646.7	\$120.2	\$526.5
Less Projected Capital Investment			(\$12.6)
			\$513.9

SJH	Current System		
Fiscal Year	Revenue	Operating Costs	Net Revenue
Year 1	\$101.2	\$ 12.3	\$88.9
Year 2	101.5	12.7	88.8
Year 3	106.0	13.3	92.7
Year 4	110.7	14.0	96.7
Year 5	115.6	14.6	101.0
Total	\$535.0	\$66.9	\$468.1
Less Projected Capital Investment			(\$6.2)
			\$461.9

AET				
Revenue	Operating Costs	Net Revenue	Expected Savings	Present Value Savings (in Today's Dollars)
\$119.3	\$20.7*	\$98.6	-\$1.0	
122.1	21.0	101.1	1.0	
127.6	22.0	105.6	1.2	
133.4	23.1	110.3	1.4	
139.4	24.3	115.1	1.6	
\$641.8	\$111.1	\$530.7	\$4.2	
		(\$9.3)	\$3.3	
		\$521.4	\$7.5	\$7.1

AET				
Revenue	Operating Costs	Net Revenue	Expected Savings	
\$99.6	\$11.3*	\$88.3	-\$0.6	
100.8	11.4	89.4	0.6	
105.4	12.0	93.4	0.7	
110.2	12.5	97.7	1.0	
115.3	13.2	102.1	1.1	
\$531.3	\$60.4	\$470.9	\$2.8	
		(\$4.7)	\$1.5	
		\$466.2	\$4.3	\$4.0

* Includes violation processing transition costs of \$0.7 F/E, \$0.3 SJH

In Millions



The Five-year Cumulative Impact

Five-year	Revenue	Operating Costs	Net Revenue	Projected Capital Investment	Five-year Cumulative Impact
Current System	\$1,181.7	\$187.1	\$994.6	\$18.8	\$975.8
AET	\$1,173.1	\$171.5*	\$1,001.6	\$13.98	\$987.6
Total AET Benefit			\$7.0M		\$11.8 M

* Includes violation processing transition costs of \$0.7 F/E, \$0.3 SJH

In Millions

- First year is a transition year
- Expected five-year cash flow benefit including reduction of capital investment totals \$11.8M

The Projected Breakeven Analysis

Variables	Foothill/Eastern				San Joaquin Hills			
	% of Cash Transactions		% of Total Transactions		% of Cash Transactions		% of Total Transactions	
	TCA Model	Breakeven	TCA Model	Breakeven	TCA Model	Breakeven	TCA Model	Breakeven
Cash to FasTrak	12.5%	28.0%	2.1%	4.6%	11.3%	33.0%	2.1%	6.0%
Diversion	7.5%	12.5%	1.2%	2.0%	7.5%	12.5%	1.2%	2.2%

- The TCA model utilizes conservative estimates
- Variables represent assumptions stress tested
- Breakeven is the level that results in no operating cost saving
- Model outcomes robust enough to sustain significant changes.
- Mitigations:
 - Raise violation penalty
 - Reduce costs
 - Pursue violations more vigorously
 - Change toll rate differentials



The Benefits

- Free flow of traffic; improves safety
- Provides additional options for toll rate adjustments
- Eliminates cash security concerns
- Offers additional payment options
- Lowers operating & maintenance costs
- Fewer lanes to equip and maintain
- Long term investment cost is less than current system
- Construction cost savings in future extension projects



AET Implementation: Scope of Work

Build Stage

- Final civil design and plan approved
- Procurement & award of systems and civil contractors
- Back office systems development
- Civil construction
- Systems installation & lane /plaza testing
- Marketing and public outreach campaign

Soft Launch Stage

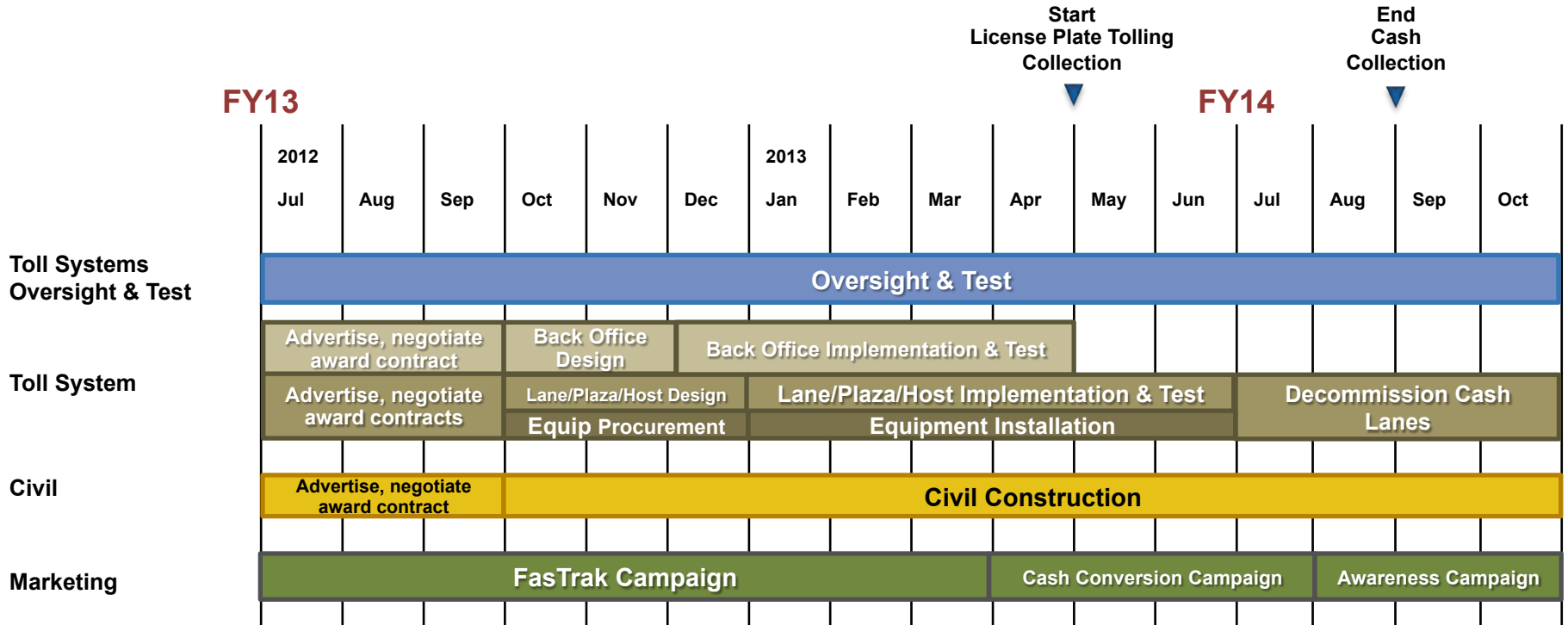
- Acceptance testing complete
- Striping & signing
- Rollout of new payments options concurrently with cash
- Public outreach-media

All Electronic Tolling Stage

- Full conversion to AET/eliminating cash toll collection
- Close & decommission plazas and ramps
- Marketing awareness campaign
- Traffic & revenue management and monitoring



AET Implementation Schedule





Recommendation

Staff recommends the agencies proceed with Phase 4
of the strategic policy and planning study —
All electronic tolling implementation



SJHTCA Operations & Finance Committee Discussions

June 5, 2012

- **Diversion estimates: 1.2% in TCA model compared to the market survey responses of 2.9% diversion and 6.3% cash to FasTrak**
- **Breakeven tables and the What-If analyses**
- **Are there better preference surveys to predict diversion and attraction of new customers**
- **The ‘all-invoice’ or ‘we will bill you’ approach taken by other agencies and why we selected our approach**
- **Staff thoughts about attracting new customers to The Toll Roads based on the market research and focus groups**
- **The approach assumed for investing in the existing cash and FasTrak system; and how soon would that investment start to happen**
- **The relationship of toll increases and the implementation of AET in terms of diversion**