



Implementation Priorities on the I-80 Corridor

STA Board Workshop

June 27, 2011

Implementation on the I-80 Corridor

- I-80 Express Lanes
- Freeway Performance Initiative (FPI)
 - Traffic Operations System (TOS)
 - Ramp Metering



Express Lanes

What an Express Lane is:

- A toll enacted on single-occupant vehicles who wish to use lanes or entire roads that are designated for High-Occupancy Vehicles (HOV)
- Often constructed within the existing road space



Express Lanes

How Express Lanes Work:

- Tolls are collected either by automatic number plate recognition, or toll collection system (i.e., FasTrak)
- Single-occupant vehicles required to pay toll that varies based on demand (congestion pricing)

Express Lanes

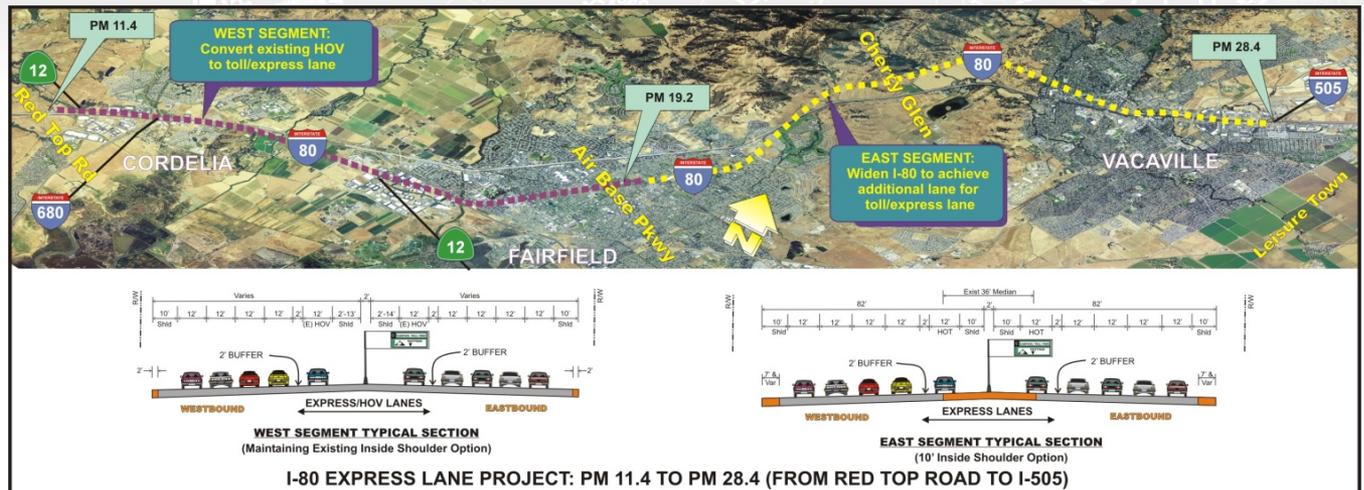
Benefits of Express Lanes:

- Reductions in congestion and emissions, by making more efficient use of freeway system
- Providing reliable travel option for express bus and carpools via the HOV network and use of the express lanes for those who pay the toll
- Completing the HOV/Express Network 10-40 years sooner than if relying upon traditional state and local funding mechanisms
- Revenue helps fund operation, maintenance and future improvements

Express Lanes

Need for Express Lanes in Solano County:

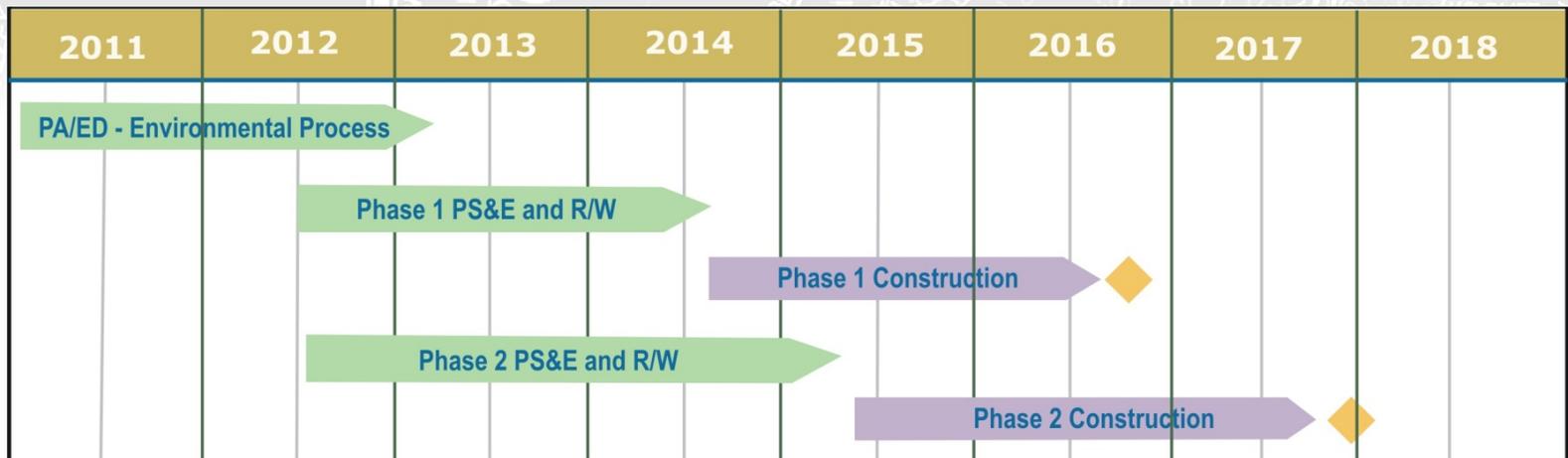
- MTC has proposed a Regional Express Lane concept, which involves converting existing HOV lanes to Express Lanes
- The segment of I-80 (from Red Top Rd to I-505) is physically constrained, including right-of-way limitations, sensitive resources, and urban development on either side of the corridor



Express Lanes in Solano County

Process and Schedule:

- The project is between Red Top Road to Air Base Parkway (HOV lanes conversion) and new construction between Air Base Parkway to I-505
- \$16.4 million has been secured from RM2 to complete the PA/ED



Freeway Performance Initiative (FPI)

- Program will improve system efficiency through deployment of system operations and management strategies
- Maximize use of available freeway capacity by completing HOV lane system
- Actively address regional freight movement issues and close key gaps in freeway system physical infrastructure



Elements of FPI

Traffic Operations System (TOS):

- Close-circuit television cameras (CCTV)
- Wireless in-pavement sensors
- Roadside data-relay stations
- Highway advisory channels
- Changeable Message Signs (CMS)



Elements of FPI

Ramp Metering:

- Implemented in conjunction with other freeway management systems, such as HOV lanes, HOV ramp bypass lanes, and surveillance camera & incident detection
- Benefits of ramp metering include:
 - Safety by improving flow & mix of vehicle entering the freeway
 - Improved mobility & reliability
 - Reduced emissions



Funding & Construction of FPI Elements

- \$48 million in Cycle 1 STP and CMAQ for ramp metering and other operations improvements secured
- \$28 million will be used to construct ramp metering at 42 locations and TOS elements along I-80 between SR37 in Vallejo to I-505 in Vacaville
- Within Cycle 2, additional \$20 million for 19 ramp metering locations and 150 TOS elements will be constructed along I-80 countywide



Funding & Construction of FPI Elements

- Caltrans installing ramp metering equipment between Red Top Road and Air Base Parkway
- Construction estimated to be completed by early 2012
- Caltrans and MTC authorized to build ramp metering, but not to operate ramp metering
 - Cannot operate ramp metering lights without approval from local agencies
 - Solano County to study impacts of ramp metering and develop an Memorandum of Understanding (MOU)

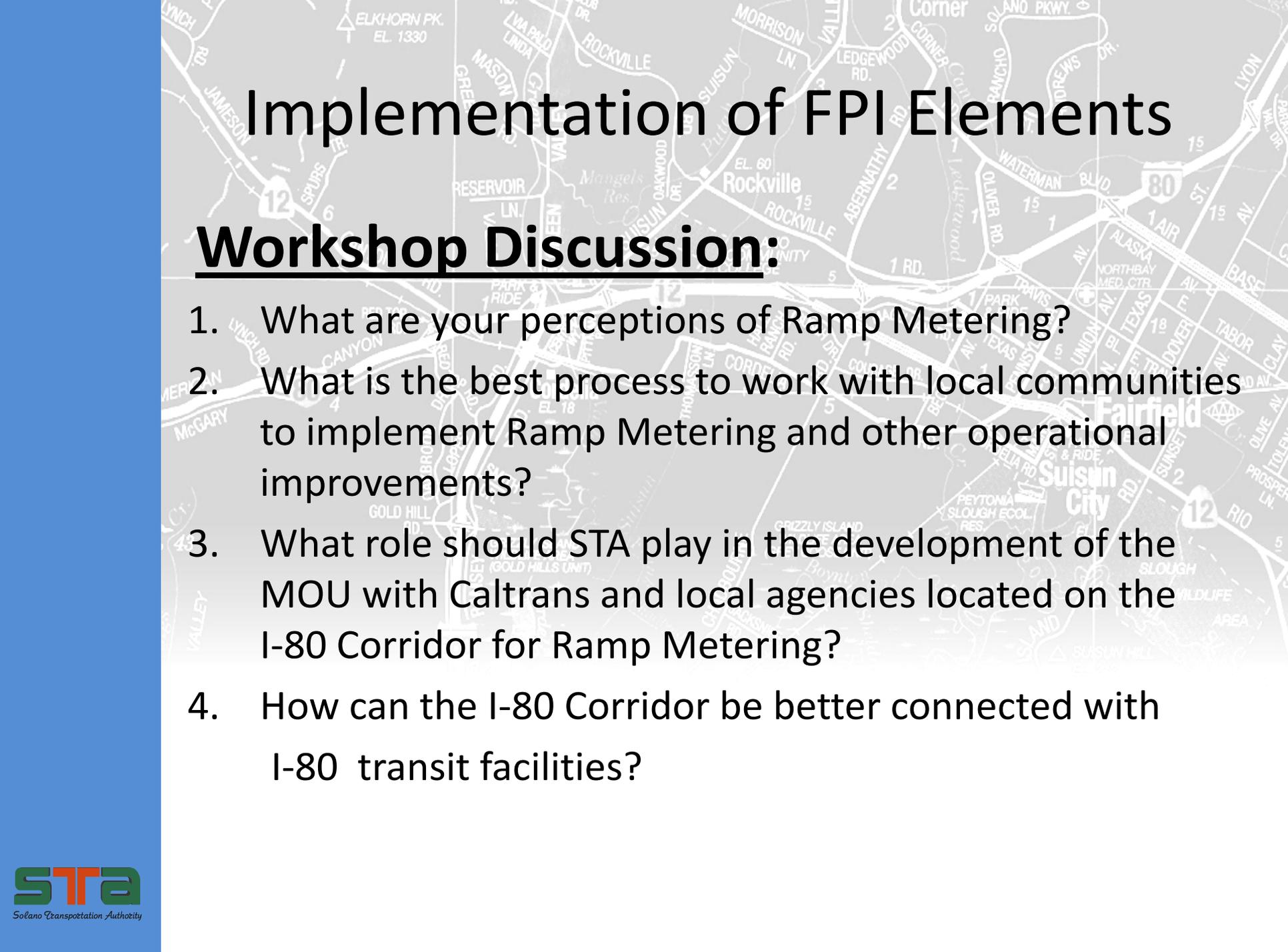


Implementation of FPI Elements

Solano Highways Partnership (SoHIP):

- Working to discuss highway project development, ramp metering scopes of work, public outreach, and MOU development
- SoHIP estimated to approve ramp metering study and potentially enter into MOUs with local agencies and Caltrans by early 2012





Implementation of FPI Elements

Workshop Discussion:

1. What are your perceptions of Ramp Metering?
2. What is the best process to work with local communities to implement Ramp Metering and other operational improvements?
3. What role should STA play in the development of the MOU with Caltrans and local agencies located on the I-80 Corridor for Ramp Metering?
4. How can the I-80 Corridor be better connected with I-80 transit facilities?