



DATE: June 25, 2015  
TO: STA Board  
FROM: Robert Guerrero, Senior Project Manager  
RE: Phase 2 I-80 Ramp Meter Rate Plan

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**Background:**

The STA has coordinated with MTC, Caltrans and the local agencies to activate ramp meters along the I-80 corridor as part of the Solano Highway Partnership (SoHIP). This is part of a larger effort to manage Solano highway corridors through Intelligent Transportation Systems (ITS) and other operational strategies as identified in the 2009 Solano Highway Operations Study. Phase 1 Ramp Meter activation occurred in late February 2014. This included activation of ramp meters located on ramps along eastbound I-80 from Red Top Road to North Texas Street in Fairfield in the P.M. peak period.

Prior to activation, MTC and Caltrans developed a metering rate plan that outlines optimal metering conditions, as well as days and hours of operation for managing the signals. Over the last year and half, the SoHIP has been monitoring the performance of Phase 1 Ramp Meters and began to plan for Phase 2 implementation. Phase 2 includes all metering lights in the eastbound and westbound direction between I-505 in the City of Vacaville and Hwy 37 in the City of Vallejo in both A.M. and P.M. peak periods. A new metering rate plan was subsequently developed for Phase 2 and is the subject of this staff report and recommendation. The tentative activation date for the Phase 2 meters is in October 2015.

**Discussion:**

The optimal metering rates were developed using assumptions based on the original I-80 Ramp Meter Implementation Feasibility Study. In summary, the Phase 2 implementation is anticipated to result in the following time savings and operation hours (Attachment A):

- 9% travel time savings (3.2 mins) on the eastbound mainline on a typical Friday afternoon
- Up to 22% travel time savings (6.5 mins) on the westbound mainline on a typical Sunday Afternoon.
- Phase 2 implementation is predicted to have a 2.5% capacity increase to the corridor.
- Operational hours are ~~2-7 p.m.~~ proposed to begin resting on Green at 12 p.m. during the eastbound PM Peak Period with variations for when the meters automatically cycle based on freeway conditions and weekend circumstances (e.g. typical and long-weekend Friday's). Mon-Thurs with the same principle of staying solid green until cycling in necessary for when the freeway becomes congested.
- ~~Operational hours are recommended at 1-8 p.m. for eastbound during a long weekend Friday; it's an earlier start time by one hour. Currently kicks on at 2 p.m.~~
- Operational hours for the AM Peak Period will run between 5-10 a.m.; however, free flow conditions are anticipated for typical weekdays. This would result in solid green ramps until congestion occurs.

Caltrans and MTC will work to activate the Phase 2 Ramp Meters in late September or early October, contingent upon STA Board's approval of the Phase 2 Metering Rate Plan. Caltrans has offered to provide additional public outreach if requested before activation of the ramp meters. The SoHIP and STA Technical Advisory Committee reviewed and approved the Phase 2 Ramp Metering Rate Plan at their June 18<sup>th</sup> and June 24<sup>th</sup> meetings respectively.

**Fiscal Impact:**

None to the STA General Fund. Ramp meter equipment was previously installed by Caltrans.

**Recommendation:**

Approve the [Phase 2 I-80 Ramp Meter Rate Plan](#) as shown in Attachment A.

Attachment:

- A. For immediate review and printing, you may download the Plan on STA's website -  
Click here: [Phase 2 I-80 Ramp Meter Rate Plan](#)