



Marin US 101 Ramp Metering Workshop November 20, 2014

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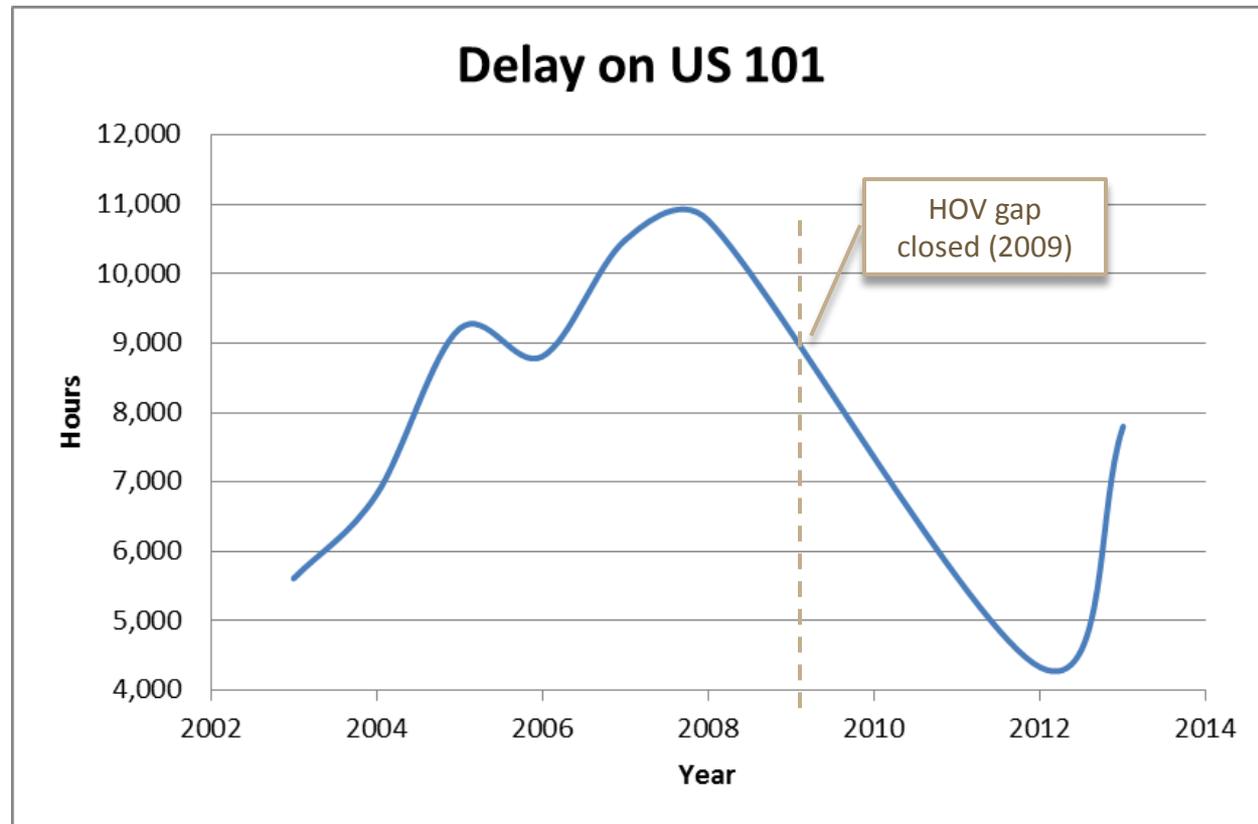
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Increase in Traffic Congestion along Marin US 101

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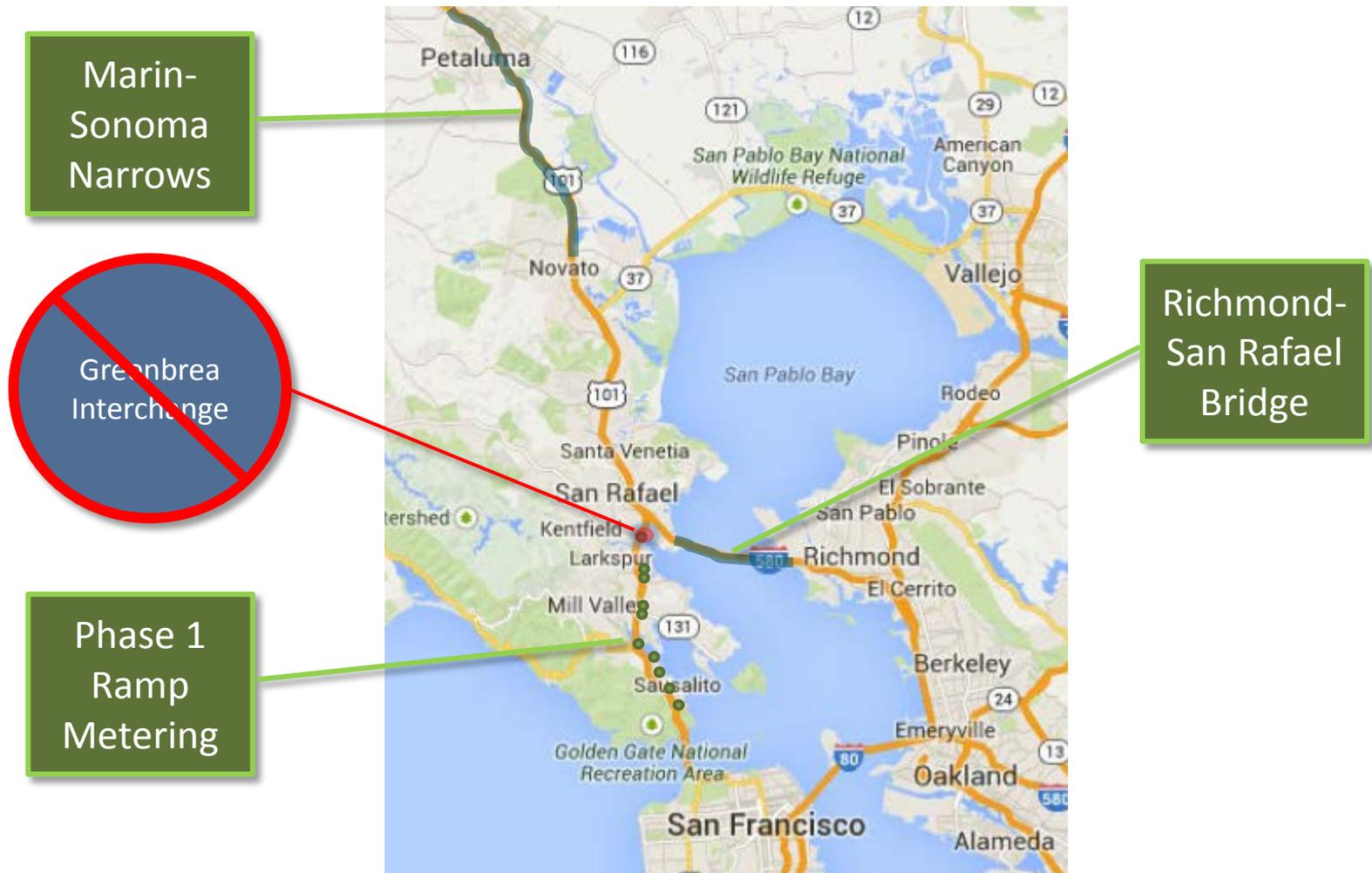


Northbound US 101 Traffic through Corte Madera



Managing US 101 Congestion as a System

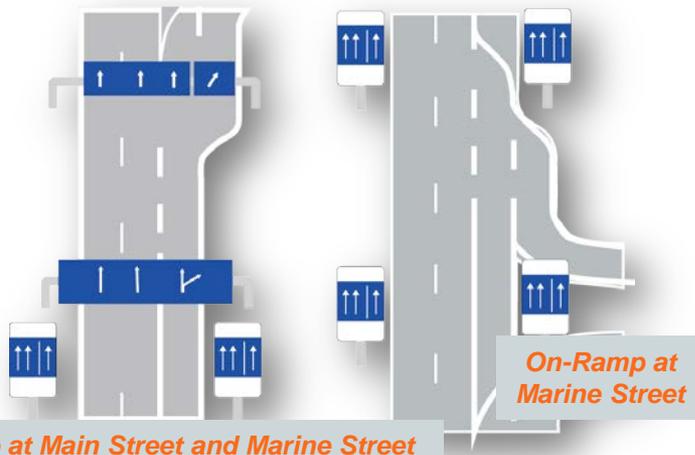
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Operational Improvements on the Richmond-San Rafael Bridge

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- ❑ **Bicycle Path on Upper Deck (Westbound)**
 - ❑ Convert right shoulder to a barrier separated bike/ped path
- ❑ **Peak Period Use Lane on Lower Deck (Eastbound)**
 - ❑ Open right shoulder to vehicular traffic during PM peak period



Operational Improvements along Marin US 101 via Ramp Metering

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MTC Freeway Performance Initiative

- ❑ Incident Management
- ❑ Traveler Information
- ❑ Arterial Management
- ❑ **Ramp Metering**



What Does Ramp Metering Do?

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- ❑ Breaks up vehicle platoons at on-ramps to make merging safer
- ❑ Provides reliability and consistent travel times for travelers
- ❑ Helps smooth out freeway traffic flow and increase mobility

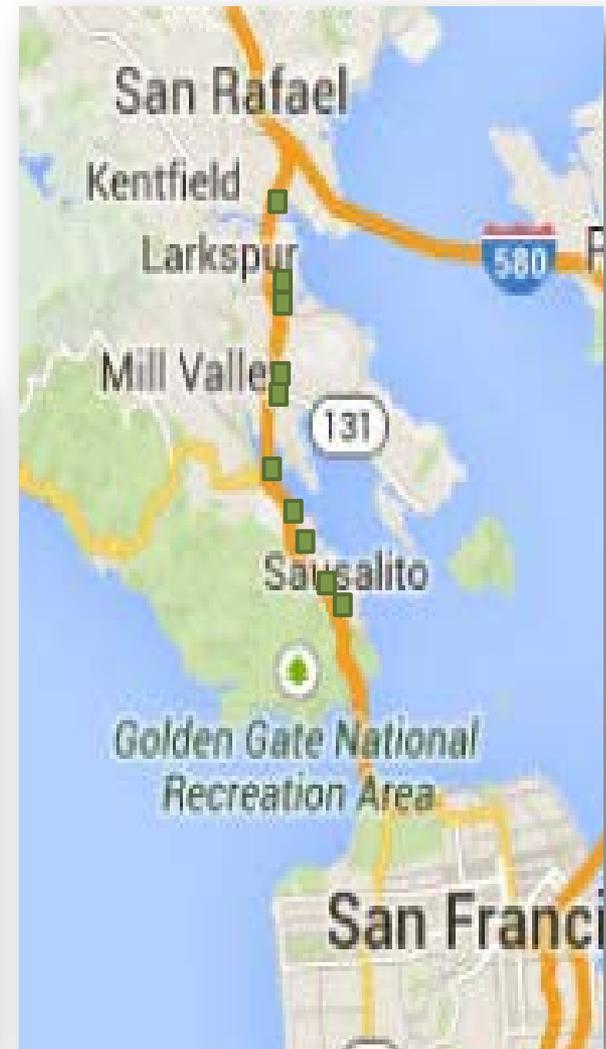


Ramp Metering for Northbound Marin US-101

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Marin US-101 Northbound Phase 1

- Ten On-ramps from Spencer to Sir Francis Drake
- Addresses PM congestion in southern Marin

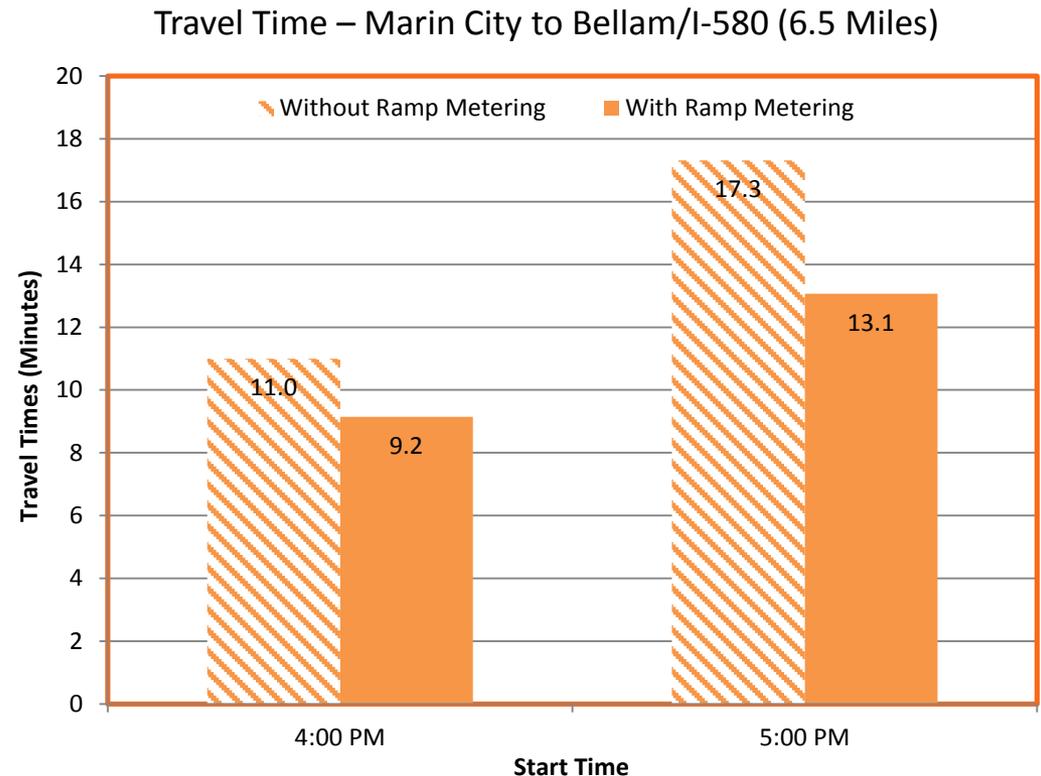


Ramp Metering Reduces Delay and Improves Safety for Northbound Marin US 101

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Key Findings from Phase 1 Feasibility Assessment

- Travel Time Reduction
 - Potential savings of 4 minutes
- Ramp Delay
 - Maximum delay of 2.4 minutes
- Local Street Impacts
 - Ramp queues contained within available storage
 - Diversion off freeway discouraged



“While motorists may encounter delays at the metered on-ramp, these additional delays would be compensated, to some extent, by improved travel times after they enter the freeway”

Ramp Metering Successfully Activated in North Bay

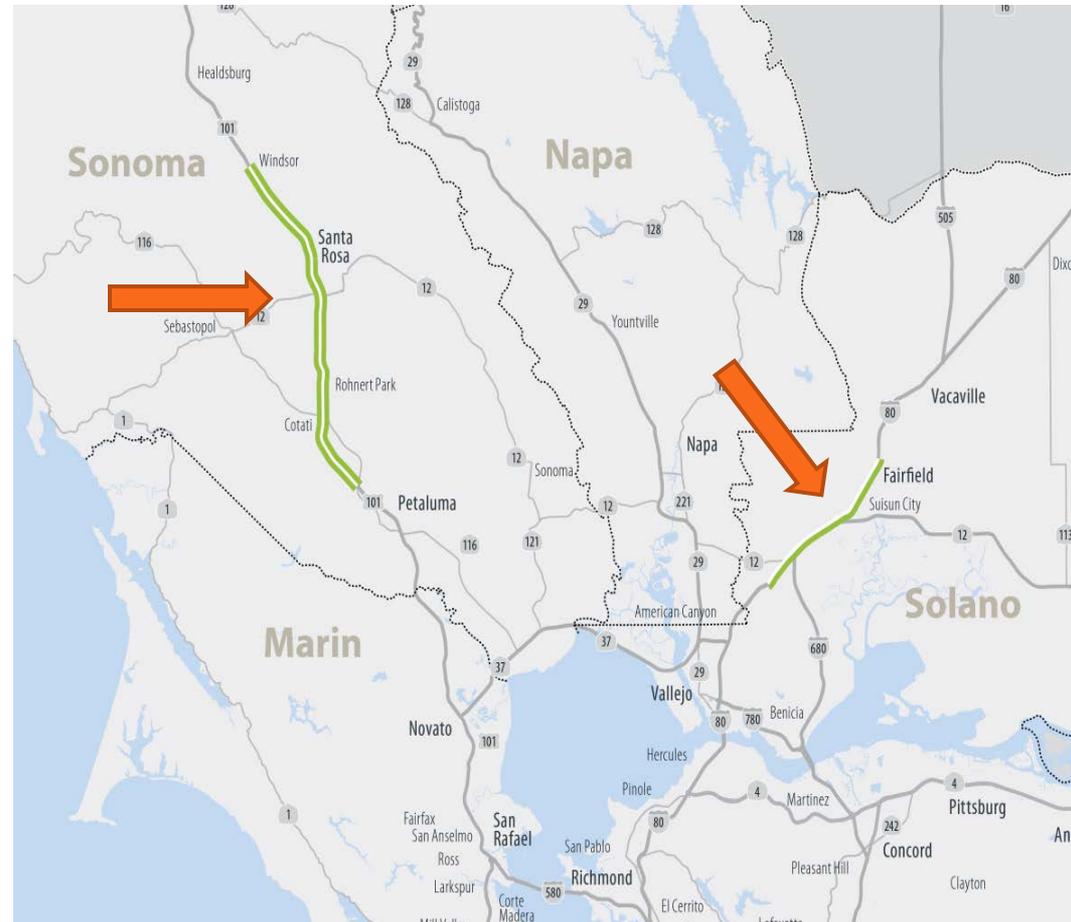
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Solano I-80 Phase 1 (Feb. 2014)

- EB Red Top Rd to N Texas St
- 6 Minutes (25%) travel time reduction

Sonoma US-101 (Sept. 2014)

- Petaluma to Windsor
- 2 Minutes (9%) travel time reduction – Still refining



Marin US-101 Northbound Phase 1 Ramp Metering Implementation Plan Process

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