

Technical Advisory Committee

MEETING AGENDA

July 24, 2014 1:30 PM

Sonoma County Transportation Authority
SCTA Large Conference Room
490 Mendocino Avenue, Suite 206
Santa Rosa, California 95401

ITEM

1. Introductions
2. Public Comment
3. Approval of Minutes, June 26, 2014* – **DISCUSSION / ACTION**
4. TFCA/TDA3 Quarterly Report* – **DISCUSSION / ACTION**
5. Update on SB 743 - **DISCUSSION**
6. Measure M **DISCUSSION**
 - 6.1 Measure M Programming and Appropriation Status (FY13/14 and FY14/15)*
 - 6.2 Measure M Invoicing Status*
7. Sonoma County Road Safety and Improvement Act - **DISCUSSION**
8. ADA Curb Ramp Requirements in relation to Microsurfacing vs. Slurry Seal (*Nancy Adams*) - **DISCUSSION**
9. Highway 101 Ramp Metering Schedule Update* – **DISCUSSION**
10. Regional Delivery Update - **DISCUSSION**
11. Rail Update - **DISCUSSION**
12. Other Business / Comments / Announcements - **DISCUSSION**
13. Adjourn – **ACTION**

*Materials attached.

**Handout at meeting

Page 1 of 2

The next **SCTA** meeting will be held September 8, 2014
The next **TAC** meeting will be held on August 28, 2014?

Copies of the full Agenda Packet are available at www.sctainfo.org

DISABLED ACCOMMODATION: If you have a disability that requires the agenda materials to be in an alternate format or that requires an interpreter or other person to assist you while attending this meeting, please contact SCTA at least 72 hours prior to the meeting to ensure arrangements for accommodation.

SB 343 DOCUMENTS RELATED TO OPEN SESSION AGENDAS: Materials related to an item on this agenda submitted to the **Technical Advisory Committee** after distribution of the agenda packet are available for public inspection in the Sonoma County Transportation Authority office at 490 Mendocino Ave., Suite 206, during normal business hours.

Pagers, cellular telephones and all other communication devices should be turned off during the committee meeting to avoid electrical interference with the sound recording system.



TAC Voting member attendance – (6 Month rolling 2013-2014)

Jurisdiction	Jan	Feb	Mar	Apr	May	June	July
Cloverdale Public Works							
Cotati Public Works	√	√	√	√	√	√	
County of Sonoma DHS		√	√			√	
County of Sonoma PRMD	√						
County of Sonoma Reg. Parks		√	√	√	√	√	
County of Sonoma TPW	√	√	√	√	√	√	
Healdsburg Public Works	√		√	√			
Petaluma Public Works & Transit	√	√	√	√	√	√	
Rohnert Park Public Works	√	√	√	√	√	√	
Santa Rosa Public Works	√	√	√	√	√	√	
Santa Rosa Transit						√	
Sebastopol Public Works	√	√	√	√	√	√	
SMART	√	√	√			√	
Sonoma County Transit	√		√		√		
Sonoma Public Works	√	√	√	√	√	√	
Windsor Public Works	√	√	√	√		√	

SCTA TECHNICAL ADVISORY COMMITTEE

Meeting Minutes of June 26, 2014

1. Call to Order/Introductions

The meeting was called to order by Chair Kelly.

Members: Nancy Adams, Santa Rosa, Norine Doherty, Sonoma County DHS, Rachel Ede, Santa Rosa TPW/Transit, Stuart Hayre, Windsor, Susan Kelly, Sebastopol, Damien O'Bid, Cotati, Joanne Parker, SMART, Alejandro Perez, Windsor, Eydie Tacata, Rohnert Park, Dan Takasugi, Sonoma, Elizabeth Tyree, Sonoma County Regional Parks, Steve Urbanek, Sonoma County TPW, Larry Zimmer, Petaluma.

Guests: Allyn Amsk, Caltrans, Jorge Barrios, Kittelson, Kevin Chen, Kittelson, Linda Lee, MTC, Adrian Levy, Caltrans.

Staff: Chris Barney, Marge Fernandez, Seana Gause, Suzanne Smith, Janet Spilman.

2. Public Comment

Steve Urbanek announced that Nevada just passed a gas tax that is indexed to inflation.

3. Approval of Minutes, May 22, 2014

The minutes were approved as submitted.

4. Ramp Metering Update

Linda Lee of MTC introduced Kevin Chan of Kittelson & Associates who presented an update of the ramp metering implementation plan and proposed activation schedule that anticipates construction to be complete by August 15 and takes Labor Day into consideration. Activation will begin September 2.

Staff recommended that the proposed activation schedule be pushed out one week to begin September 9.

SMART staff queried if Ramp Metering took into consideration rail operations.

MTC will email the latest report to SMART of queue locations.

Allyn Amsk of Caltrans reviewed the draft outreach communications for media and stakeholders for broad distribution.

The TAC requested that FAQs be added to the Caltrans website.

Ramp metering staff anticipates getting a revision by August 22 and will post to the website. SCTA will include an update in the Highway update to the Board in July and a more robust presentation in September.

Staff anticipates seeing the final outreach communication before it is released.

5. 2015 Comprehensive Transportation Plan Performance Update

SCTA staff has been refining the Performance Assessment for the Comprehensive Transportation Plan. Recent developments at the regional level have given us more flexibility with our Performance Assessment. The Regional Comprehensive Transportation Plan guidelines that were scheduled to be finalized by the end of this year; won't go into effect until 2017. We don't have to comply until then. The only counties that have tried a county level performance assessment have been Alameda and San



Francisco and the revised methodology is based on experiences in these counties.

Staff provided a PowerPoint presentation on the update of the Performance Assessment approach of the SCTA 2015 Comprehensive Transportation Plan. The performance assessment will focus on project groups and will rate groups of projects based on their ability to help SCTA make progress in the five CTP goal areas.

Staff provided to the TAC an overview of the handout "2015 CTP Update Performance Assessment test cases."

Next steps are to update the list of projects, assign projects to project categories and or groups, analyze project groups using traffic model and post processing tools, and project group scoring. Staff anticipates completion by Spring 2015.

Staff will be asking the Board to look at a poll at the next Board meeting. Staff provided an overview of the polling handout.

6. Update on SB 743

OPR is required by statute to have something by July 1 therefore we anticipate this on June 30. OPR is telling us what we can expect and they will be recommending a VMT base alternative level of service as part of the CEQA process and it will be statewide. When is available staff will send a link to the TAC.

7. Measure M

7.1. Project Update Schedule to Citizens Advisory Committee

Staff presented the annual schedule and requested the TAC to advise if the scheduled dates do not work. The schedule will be presented to the Citizen' Advisory Committee on June 30.

Santa Rosa was unsure if the dates would work for them and would notify staff if there is a change.

7.2. Invoicing Status

Report has been updated since agenda package was released. Sonoma County Regional Parks announced that they will have an invoice to SCTA by June 30.

7.3. Reminder: Fiscal Year Close and Estimates for Billing Due

Staff reminded the TAC of Fiscal Year End activities and due dates.

8. DRAFT Upcoming SCTA Agenda for July 14, 2014

Staff handed out a revised agenda from what was in the agenda packet.

9. Other Business / Comments / Announcements

Santa Rosa queried the TAC on the difference between Slurry Seal and Micro-Seal. Due to time constraints this item will be put on the July agenda.

10. Adjourn

The meeting adjourned at 3:22 pm.

Staff Report

To: SCTA Technical Advisory Committee
From: Dana Turrey, Transportation Planner
Item: Quarterly Status Report of TDA3 and TFCA Projects
Date: July 24, 2014

This report provides the status of TDA3 and TFCA projects not yet fully expended as of June 30, 2014.

Transportation Development Act, Article 3 (TDA3) Projects						
Jurisdiction	Project	ID	Programmed Amount	Funds Expended	Funds Remaining	Funds Expire
Healdsburg	Foss Creek Pathway Segment 3	12-0010-60	\$110,000.00	\$0.00	\$110,000.00	6/30/2014
Healdsburg	Grove & Rosewood Class II Re-striping	12-0010-59	\$18,000.00	\$0.00	\$18,000.00	6/30/2014
Santa Rosa	Humboldt Street Bicycle Boulevard Traffic Calming Phase II	12-0010-11	\$50,000.00	\$21,997.61	\$28,002.39	6/30/2014
Santa Rosa	Pedestrian Flasher at Old Stony Point Rd./Hearn Ave.	12-0010-12	\$50,000.00	\$8,294.70	\$41,705.30	6/30/2014
Santa Rosa	Brush Creek Class I Bike/Ped Path Rehab.	12-0010-14	\$250,000.00	\$249,301.43	\$698.57	6/30/2014
Santa Rosa	North Dutton Avenue Sidewalk Gap Closure	13-0010-03 14-001-079	\$30,000.00 \$35,000.00	\$792.68 \$0.00	\$29,207.32 \$35,000.00	6/30/2015 6/30/2016
Santa Rosa	Neotomas Bike/ Pedestrian Path	13-0010-05	\$85,000.00	\$0.00	\$85,000.00	6/30/2015
Santa Rosa	Class III Bike Signage Program	14-0010-04	\$20,000.00	\$0.00	\$20,000.00	6/30/2016
Santa Rosa	Ped Enhancements Citywide	14-0010-05	\$100,000.00	\$0.00	\$100,000.00	6/30/2016
Santa Rosa	Class II on 7th/A/6th Streets	14-0010-06	\$55,000.00	\$0.00	\$55,000.00	6/30/2016
Santa Rosa	3rd Street Traffic Signal	14-0010-07	\$93,000.00	\$0.00	\$93,000.00	6/30/2016
Sebastopol	Class II Bike Lanes on 116	14-0010-01	\$59,439.00	\$0.00	\$59,439.00	6/30/2016

Transportation Development Act, Article 3 (TDA3) Projects (cont'd)						
Jurisdiction	Project	ID	Programmed Amount	Funds Expended	Funds Remaining	Funds Expire
Sonoma	Napa Rd Class II Bike Lanes	14-0010-02	\$23,533.81*	\$0.00	\$23,533.81	6/30/2016
Windsor	Old Redwood Hwy - Lakewood Dr Bike/Ped	13-0010-02	\$169,992.00	\$0.00	\$169,992.00	6/30/2015

*Original programmed amount was \$5,000; 14-0010-03 was completed under budget of which the remaining funds (\$18,533.18) were moved to this project.

Project costs must be incurred prior to the TDA3 expiration date (typically June 30). Sponsors must submit invoices no later than August 31 for any funds expiring June 30.

Transportation Fund for Clean Air (TFCA) Projects						
Jurisdiction	Project	ID	Programmed Amount	Funds Expended	Funds Remaining	Funds Expire
Petaluma	Transit Marketing Program	14-SON-07	\$60,000.00	\$20,073.93	\$39,926.07	10/29/2015
Rohnert Park	Southwest Blvd Bike Lane Gap Closure & Traffic Calming	13-SON-02*	\$131,122.00	\$0.00	\$131,121.75	10/16/2015
Santa Rosa	Student/Youth Bus Pass Subsidy	14-SON-01	\$75,000.00	\$8,945.30	\$66,054.70	10/29/2015
Santa Rosa	Free Ride Program	14-SON-02	\$153,636.00	\$42,722.04	\$110,913.96	10/29/2015
Sonoma County Transit	Sonoma County Transit Passenger Info. System	11-SON-01	\$227,955.40	\$0.00	\$227,955.40	11/14/2014
Sonoma County Transit	Bus Stop Improvement Projects	13-SON-06*	\$82,299.00	\$26,846.88	\$55,452.12	10/16/2014
Sonoma County Transit	Transit Marketing Program	14-SON-03	\$60,000.00	\$32,982.86	\$27,017.14	10/29/2015
Sonoma County Transit	Transit Shelters	14-SON-04	\$77,983.00	\$0.00	\$77,983.00	10/29/2015
Sonoma County Transit (Sebastopol)	Sebastopol Bus Stop Improvements	14-SON-05	\$75,000.00	\$0.00	\$75,000.00	10/29/2015
Windsor	Pedestrian Enhancement Project	14-SON-06	\$151,687.18	\$0.00	\$151,687.18	10/29/2015

* For FY12/13, SCTA project numbers differ from BAAQMD numbers. BAAQMD files are "12-SON" and SCTA files are "13-SON"; there are no "13SONxx" project numbers at BAAQMD.

Staff Report

To: Sonoma County Transportation Authority Technical Advisory Committee
From: Seana L. S. Gause, Senior – Programming and Projects
Item: Measure M Recent Appropriations and Programming
Date: July 24, 2014

Issue:

What is the status of approved Measure M appropriations and programming?

Background:

Measure M funds for Local Streets Projects, as well as Bicycle and Pedestrian Projects are programmed in 5 year cycles, approximately every two years. The most recent programming exercise was completed as part of the 2014 Strategic Plan update. In development of the Strategic Plan, SCTA Project Development Managers (PDMs) meet with Measure M project sponsors to review development and delivery of Measure M projects prior to programming funds. Every attempt is made to make funds available to project sponsors when the funds are anticipated to be needed. Other factors included in programming are whether advanced construction has been requested, are matching funds required, or dependent on Measure M, and past delivery performance.

In an on-going effort to maintain transparency and be responsible to the voters who passed Measure M, SCTA staff has reviewed the current and immediately previous fiscal year programming and appropriation/expenditure history of the Measure M projects programmed to receive funding. Below is a summary of that review, in tabular format.

FY13/14				
Project Sponsor	Project Title	Amount Programmed	Amount Appropriated	Amount Expended
Santa Rosa	Santa Rosa Creek Trail – Streamside to Mission	\$162,000	\$162,000	\$0
SC Reg. Parks	Central Sonoma Valley Trail	\$15,000	\$0	\$0
SC Reg. Parks	Bodega Bay Trail	\$300,000	\$0	\$0
Healdsburg	Foss Creek Trail	\$474,000	\$0	\$0
SC DHS	SRTS	\$56,000	\$36,000	\$26,600
SC Bicycle Coalition	SRTS	\$19,000	\$19,000	\$9,400
SC Bicycle Coalition	BTW	\$15,000	\$15,000	\$13,500

FY14/15				
Project Sponsor	Project Title	Amount Programmed	Amount Appropriated	Amount Expended
Santa Rosa	Santa Rosa Creek Trail – Streamside to Mission	\$340,000	\$0	\$0
SC Reg. Parks	Central Sonoma Valley Trail	\$85,000	\$0	\$0
Petaluma	Petaluma River Trail	\$995,000	\$0	\$950,000*
Healdsburg	Foss Creek Trail	\$341,000	\$0	\$0
Sebastopol	Street Smart Sebastopol	\$170,000	\$0	\$170,000*
SC DHS	SRTS	\$26,000	\$0	\$0
SC Bicycle Coalition	SRTS	\$19,000	\$0	\$0
SC Bicycle Coalition	BTW	\$15,000	\$0	\$0

*advanced funding approved. Sponsor already incurred and paid expenses.

Policy Impacts:

None, the Measure M Strategic Plan, Chapter 4 establishes the policies and procedures by which the Measure is to be administered.

Fiscal Impacts:

By programming and not appropriating funds, Measure M project that did not receive funding were unable to be delivered.

Staff Recommendation:

Staff recommends that the TAC provide direction on how projects that fail to deliver should be addressed.

Sonoma County Transportation Authority
Measure M Appropriation/Invoice Status Report
FY 14/15

Project Sponsor	Project Name	Measure M Program	Prior Apprp Balance	14/15 Amt Prog'd	14/15 Amount Apprp	Appropriation Date	Last Invoice Date	Balance Remaining	Notes
Santa Rosa	Hearn Avenue (Phase 1)	LSP	\$530,640	\$0	\$0	6/14/10	1/3/14	\$528,683	To be deobligated
Santa Rosa	Santa Rosa Creek Trail - Stmsd to Mission	Bike/Ped	\$0	\$375,000	\$0	12/9/13			To be deobligated
Santa Rosa	Santa Rosa Creek Trail - Stmsd to Mission	Bike/Ped	\$375,000	\$340,000	\$0				Needed?
Santa Rosa	Access Across 101 Comm Conn	Bike/Ped	\$159,056	\$0	\$0	9/12/11	3/18/14	\$121,741	Approp are supposed to exp 3yrs after approval
SoCo DHS	SRTS (DHS)	Bike/Ped	\$0	\$26,000	\$0	10/14/13	7/7/14	\$9,422	
SCBC	SRTS (SCBC)	Bike/Ped	\$15,463	\$19,000	\$0	4/14/14	6/6//14	\$11,326	
SCBC	BTW (SCBC)	Bike/Ped	\$5,174	\$15,000	\$0	4/14/14	6/19/14	\$1,511	
SoCo Regional Pks	Sonoma Schellville	Bike/Ped	\$57,262	\$0	\$0	10/19/09	7/3/14	\$52,183	Approp are supposed to exp 3 yrs after approval
SoCo Regional Pks	Central Sonoma Valley Trail	Bike/Ped	\$0	\$85,000	\$0				
Sebastopol	Street Smart Sebastopol	Bike/Ped	\$0	\$170,000	\$0				
Healdsburg	Foss Creek Trail	Bike/Ped	\$0	\$341,000	\$0				
Petaluma	Petaluma River Tr	Bike/Ped	-\$45,956	\$995,000	\$0	5/14/12	3/12/14	-\$951,913	Advanced Funding Apprvd
SMART	NWPRR	Bike/Ped	\$0	\$1,000,000	\$0		4/24/14	-\$221,883	Authorized for Advanced Funding (bal estimate)
SMART	IOS Construction (Bond)	Rail	\$1,096,639	\$0	\$0	10/10/11	4/17/14	\$0	

U.S. Department of Transportation

Federal Highway Administration

1200 New Jersey Avenue, SE

Washington, DC 20590

202-366-4000

Civil Rights

Civil Rights



U.S. Department of Justice
Civil Rights Division
Disability Rights Section



U.S. Department of Transportation
Federal Highway Administration

Department of Justice/Department of Transportation Joint Technical Assistance¹ on the Title II of the Americans with Disabilities Act Requirements to Provide Curb Ramps when Streets, Roads, or Highways are Altered through Resurfacing

Title II of the Americans with Disabilities Act (ADA) requires that state and local governments ensure that persons with disabilities have access to the pedestrian routes in the public right of way. An important part of this requirement is the obligation whenever streets, roadways, or highways are *altered* to provide curb ramps where street level pedestrian walkways cross curbs.² This requirement is intended to ensure the accessibility and usability of the pedestrian walkway for persons with disabilities.

An alteration is a change that affects or could affect the usability of all or part of a building or facility.³ Alterations of streets, roads, or highways include activities such as reconstruction, rehabilitation, *resurfacing*, widening, and projects of similar scale and effect.⁴ Maintenance activities on streets, roads, or highways, such as filling potholes, are not alterations.

Without curb ramps, sidewalk travel in urban areas can be dangerous, difficult, or even impossible for people who use wheelchairs, scooters, and other mobility devices. Curb ramps allow people with mobility disabilities to gain access to the sidewalks and to pass through center islands in streets. Otherwise, these individuals are forced to travel in streets and roadways and are put in danger or are prevented from reaching their destination; some people with disabilities may simply choose not to take this risk and will not venture out of their homes or communities.

Because resurfacing of streets constitutes an alteration under the ADA, it triggers the obligation to provide curb ramps where pedestrian walkways intersect the resurfaced streets. See *Kinney v. Yerusalim*, 9 F 3d 1067 (3rd Cir. 1993). This obligation has been discussed in a variety of technical assistance materials published by the Department of Justice beginning in 1994.⁵ Over the past few

years, state and local governments have sought further guidance on the scope of the alterations requirement with respect to the provision of curb ramps when streets, roads or highways are being resurfaced. These questions have arisen largely due to the development of a variety of road surface treatments other than traditional road resurfacing, which generally involved the addition of a new layer of asphalt. Public entities have asked the Department of Transportation and the Department of Justice to clarify whether particular road surface treatments fall within the ADA definition of alterations, or whether they should be considered maintenance that would not trigger the obligation to provide curb ramps. This Joint Technical Assistance addresses some of those questions.

Where must curb ramps be provided?

Generally, curb ramps are needed wherever a sidewalk or other pedestrian walkway crosses a curb. Curb ramps must be located to ensure a person with a mobility disability can travel from a sidewalk on one side of the street, over or through any curbs or traffic islands, to the sidewalk on the other side of the street. However, the ADA does not require installation of ramps or curb ramps in the absence of a pedestrian walkway with a prepared surface for pedestrian use. Nor are curb ramps required in the absence of a curb, elevation, or other barrier between the street and the walkway.

When is resurfacing considered to be an alteration?

Resurfacing is an alteration that triggers the requirement to add curb ramps if it involves work on a street or roadway spanning from one intersection to another, and includes overlays of additional material to the road surface, with or without milling. Examples include, but are not limited to the following treatments or their equivalents: addition of a new layer of asphalt, reconstruction, concrete pavement rehabilitation and reconstruction, open-graded surface course, micro-surfacing and thin lift overlays, cape seals, and in-place asphalt recycling.

What kinds of treatments constitute maintenance rather than an alteration?

Treatments that serve solely to seal and protect the road surface, improve friction, and control splash and spray are considered to be maintenance because they do not significantly affect the public's access to or usability of the road. Some examples of the types of treatments that would normally be considered maintenance are: painting or striping lanes, crack filling and sealing, surface sealing, chip seals, slurry seals, fog seals, scrub sealing, joint crack seals, joint repairs, dowel bar retrofit, spot high-friction treatments, diamond grinding, and pavement patching. In some cases, the combination of several maintenance treatments occurring at or near the same time may qualify as an alteration and would trigger the obligation to provide curb ramps.

What if a locality is not resurfacing an entire block, but is resurfacing a crosswalk by itself?

Crosswalks constitute distinct elements of the right-of-way intended to facilitate pedestrian traffic. Regardless of whether there is curb-to-curb resurfacing of the street or roadway in general, resurfacing of a crosswalk also requires the provision of curb ramps at that crosswalk.

¹ The Department of Justice is the federal agency with responsibility for issuing regulations implementing the requirements of title II of the ADA and for coordinating federal agency compliance activities with respect to those requirements. Title II applies to the programs and activities of state and local governmental entities. The Department of Justice and the Department of Transportation share responsibility for enforcing the requirements of title II of the ADA with respect to the public right of way, including streets, roads, and highways.

2 See 28 CFR 35.151(i)(1) (Newly constructed or altered streets, roads, and highways must contain curb ramps or other sloped areas at any intersection having curbs or other barriers to entry from a street level pedestrian walkway) and 35.151(i)(2) (Newly constructed or altered street level pedestrian walkways must contain curb ramps or other sloped areas at intersections to streets, roads, or highways).

3 28 CFR 35.151(b)(1).

4 2010 ADA Accessibility Standards, section 106.5.

5 See 1994 Title II Technical Assistance Manual Supplement, Title II TA Guidance: The ADA and City Governments: Common Problems; and ADA Best Practices Tool Kit for State and Local Governments: Chapter 6, Curb Ramps and Pedestrian Crossings under Title II of the ADA, available at ada.gov.

Page last modified on June 28, 2013.

U.S. Department of Transportation

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Civil Rights

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Glossary of Terms for DOJ/FHWA Joint Technical Assistance on the ADA Title II Requirements to Provide Curb Ramps When Streets Roads or Highways are Altered Through Resurfacing

This glossary is intended to help readers understand certain road treatments referenced on page 2 of the DOJ/FHWA Joint Technical Assistance on the ADA Title II Requirements to Provide Curb Ramps When Streets Roads or Highways are Altered Through Resurfacing. The definitions explain the meaning of these terms from an engineering perspective and are provided in the order in which they appear in the Technical Assistance document.

Treatments that are considered alterations of the road surface

Reconstruction – Reconstruction refers to removing all or a significant portion of the pavement material and replacing it with new or recycled materials. This may include full-depth reclamation, where the pavement surface is demolished in place and new pavement surface is applied. In addition, reconstruction may also include grinding up a portion of the pavement surface, recycling it and placing it back, and then adding a wearing surface, such as in cold in-place asphalt recycling. Reconstruction often includes widening or geometrical changes to the roadway profile.

Rehabilitation – Rehabilitation refers to significant repairs made to a road or highway surface, including activities such as full slab replacement, filling voids under slabs (slabjacking), widening, and adding additional structural capacity.

Open-graded surface course – Open-graded surface course, also known as “open-graded friction course,” involves a pavement surface course that consists of a high-void, asphalt concrete mix that permits rapid drainage of rainwater through the course and off the shoulder of the road. The mixture consists of either Polymer-modified or rubber-modified asphalt binder, a large percentage of one-sized coarse aggregate, and a small amount of fibers. This treatment prevents tires from hydroplaning and provides a skid-resistant pavement surface with significant noise reduction.

Microsurfacing – Microsurfacing involves spreading a properly proportioned mixture of polymer modified asphalt emulsion, mineral aggregate, mineral filler, water, and other additives, on a paved surface. Microsurfacing differs from slurry seal in that it can be used on high volume roadways to correct wheel path rutting and provide a skid resistant pavement surface.

Thin lift overlays – Thin lift overlays are thin applications of mixtures of hot mix asphalt. Thin lift overlays may also require some milling along curbs, manholes, existing curb cuts, or other road structures to assure proper drainage and cross slopes.

Cape seal – A cape seal is a thin surface treatment constructed by applying a slurry seal or microsurfacing to a newly constructed chip seal. It is designed to be an integrated system where the primary purpose of the slurry is to fill voids in the chip seal.

In-place asphalt recycling – In-place asphalt recycling is a process of heating and removing around 1-2 inches of existing asphalt and remixing the asphalt with the addition of a binder additive and possible aggregate to restore the wearing surface for placement and compaction. All of this is performed in a train of equipment.

Treatments that are considered maintenance of the road surface

Crack filling and sealing – Crack filling and sealing involves placing elastomeric material directly into cracks in pavement.

Surface sealing – Surface sealing involves applying liquid sealant to pavement surface in order to stop water penetration and/or reduce oxidation of asphalt products. Sand is sometimes spread over liquid to absorb excess material.

Chip seals – Chip Seals involve placing graded stone (chips) on liquid emulsified asphalt sprayed on pavement surface. The surface is rolled to enable seating of chips.

Slurry seal – Slurry seals involve spraying a mixture of slow setting emulsified asphalt, well graded fine aggregate, mineral filler, and water on the pavement surface. It is used to fill cracks and seal areas of old pavements, to restore a uniform surface texture, to seal the surface to prevent moisture and air intrusion into the pavement, and to improve skid resistance.

Fog seals – Fog seals are a type of surface sealing.

Scrub sealing – Scrub sealing is type of surface sealing

Joint crack seals – Joint crack seals are usually associated with concrete pavement. This work consists of routing and cleaning existing cracks and joints and resealing to prevent water and non-compressibles from entering into the pavement joints and subgrade materials.

Joint repairs – Joint repairs are usually associated with concrete pavement. This work consists of selectively repairing portions of the pavement where the slabs are generally in good condition, but corners or joints are broken. The depth of the patch could be full depth or partial depth.

Dowel retrofit – Dowel retrofits are usually associated with concrete pavement. This work involves the installation of dowel bars connecting slabs in existing pavements. Pavement with dowel bar retrofits can have life extensions of as much as 20 years. Its application is almost exclusively on high-speed Interstate highways.

Spot high-friction treatments – Spot high-friction treatments involve using epoxy based resin liquids as a binder for an aggregate with high-friction properties. These are used in locations where drivers are frequently braking and the pavement surface has less resistance to slipping.

Diamond grinding – Diamond grinding involves using a gang saw to cut grooves in the pavement surface to restore smoothness and eliminate any joint faulting.

Pavement patching – Pavement patching involves selectively repairing portions of the pavement where the slabs are generally in good condition, but corners or joints are broken. The depth of the patch could be full depth or partial depth.

Page last modified on February 3, 2013.

Sonoma US 101 Ramp Metering Proposed Activation Schedule

Southbound



Northbound



* Assuming construction completion on August 15, 2014