REQUEST FOR APPROVAL

To:	**Howard Levenson** Deputy Director, Materials Management and Local Assistance Division
From:	**Brenda Smyth** Branch Chief, Statewide Technical and Analytical Resources Branch
Request Date:	November 1, 2013
Decision Subject:	Approval of Scope of Work and the University of California Pavement Research Center as Contractor for the Evaluation of the Use of Recycled Rubberized Asphalt Pavement in Hot Mix Asphalt Contract (Tire Recycling Management Fund, FY 2013/14)
Action By:	November 19, 2013

Summary of Request:

Staff requests approval of the Scope of Work for the Evaluation of the Use of Recycled Rubberized Asphalt Pavement in Hot Mix Asphalt Contract and authorization to execute a contract with the University of California Pavement Research Center located in Davis, California.

Recommendation:

Staff recommends approval of the Scope of Work for the Evaluation of the Use of Recycled Rubberized Asphalt Pavement in Hot Mix Asphalt Contract and approval to enter into a contract with the UCPRC in an amount not to exceed $300,000. This funding will come from the FY 2013/14 allocation for Research on Applications and Technologies for Waste Tires line item, in the 7th Edition of the *Five-Year Plan for the Waste Tire Recycling Management Program* as shown in the table below.

Contract	Fund Source	Amount Available	Amount to Fund Item	Amount Remaining	Line Item
Evaluation of the Use of Recycled Rubberized Asphalt Pavement in Hot Mix Asphalt	Tire Recycling Management Fund (FY 2013/14)	$1,000,000	$300,000	$700,000	Research on Applications and Technologies for Waste Tires

Deputy Director Action:

On the basis of the information and analysis in this Request for Approval and the findings set out below, I hereby approve the Scope of Work and the University of California Pavement Research Center as contractor for the Evaluation of the Use of Recycled Rubberized Asphalt Pavement in Hot Mix Asphalt Contract in an amount not to exceed three hundred thousand dollars ($300,000) subject to availability of funds appropriated to this program.

Dated: 11/18/13

Howard Levenson

Howard Levenson
Deputy Director

Attachment 1 – Scope of Work

Background Information, Analysis, and Findings

The use of recycled asphalt pavement (RAP) is a well-established process for conventional hot mix asphalt (HMA). Currently, Caltrans allows up to 25% RAP in new HMA as a contractor option on most of its paving jobs. This could increase to 40 percent and higher in the future. Many local agencies also use RAP in their new HMA mixes. For example, the City of Los Angeles uses 25-50% RAP in all of its new pavement.

Rubberized hot-mix asphalt (RHMA) pavement has been increasingly used in California over the last 10 to 20 years, and as these pavements reach the end of their design lives, they are being milled off and replaced with new HMA or RHMA. The millings are being added to RAP stockpiles and reused in new conventional HMA. Currently, no research is being undertaken specifically on the effects of rubberized RAP in the new mixes. In addition, Caltrans currently does not allow the use of RAP in RHMA-G (gap-graded) mixes. This contract will investigate the effects of rubberized RAP on conventional binders/mixes and the effects of using conventional RAP at small (10-15) percentages on RHMA-G binders/mixes. The research will focus on binder properties, but will include a series of laboratory performance tests to assess mix performance as well.

Deliverables will include a report detailing any specific issues related to the use of rubberized RAP and conventional RAP in new HMA and RHMA-G mixes respectively, recommendations for additional mix performance studies if required, and recommendations for new specification language to allow the use of RAP in RHMA-G mixes.

Staff is proposing to contract with the University of California Pavement Research Center to perform the tasks under this contract. The University of California Pavement Research Center is widely recognized as the preeminent facility for pavement research in California.