From: Owen, Bill P@DOT [mailto:bill.owen@dot.ca.gov]

**Sent:** Thursday, December 20, 2018 5:11 PM **To:** Kevin Chesnik <a href="kchesnik@ara.com">kchesnik@ara.com</a>

**Subject:** RE: R06A/G Quarterly conference call.

Hello Kevin,

Apologies that I was unable to attend today's phone conference. Hopefully this summary gives you a good briefing on California's progress toward meeting our SHRP2 commitments.

With the SHRP2 funds, in Spring 2018 we initially acquired two FLIR One Pro thermal imaging cameras for field screening of moisture infiltration in tunnel linings. Subsequently, in Fall 2018 we acquired an impact-echo test unit for integrity testing of decks and tunnel linings--SME training for that technology was provided in November under cooperation with product R06D. In addition, we have acquired a polarized B&W camera system, and have encumbered R06A/G funds for acquisition of a cooled thermal IR camera system and supporting software. State funds were also contributed in-kind to obtain that equipment. That took place in Fall 2018, delivery of the thermal IR system is estimated for January 2019.

Those camera units are intended for use with the Caltrans 3D Radar system that was placed in service in April 2018. We've secured an additional \$41k in state research funding to retrofit the visual and thermal IR cameras to our 3D radar van. That work will be a cooperative effort with the University of California at Davis. The additional funding is a state commitment above and beyond SHRP2, and when complete will allow us to acquire georeferenced GPR and IR/visual data in a single pass. Due to our research funding process, that work will not begin until June 2019. However, the SHRP2 program has been indispensable for providing the initial seed funding that has allowed us to adopt the SHRP2 products and continue to develop and improve our implementation beyond the initial SHRP2 program.

With the current purchases and encumbrances, our R06A/G funds are nearly depleted (see below). The remaining balances are sufficient to support our work on those projects to the end of the SHRP2 SME contracts in May 2019.

SHRP2 Product	Project	FY	Fund Profile	Budget	Actual Expenses
DOCA	0017000343	2019	047442	¢20,000,00	\$466.06
R06A	0017000243	2018	047442	\$30,000.00	\$466.06
		2019	ZF1509	\$0.00	\$0.00
R06G	0017000252	2018	047444	\$30,000.00	\$183.76
		2019	ZF1512	\$0.00	\$0.00

I hope that gives you an idea of how we've been able to leverage the SHRP2 products to maximize their application to California's highway infrastructure. Feel free to contact me if you need more information.

Regards,

## Bill Owen

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