

TAMC Board Members,

Agenda Item #5: State Route 68 Adaptive Traffic Signal Pilot Project Update

On October of last year, the Board voted unanimously to fund, with \$500,000, the installation of AI Adaptive Signal Controls at **all 9 intersections along Hwy 68** to determine if the expected performance of this new technology would meet or exceed the performance of the originally proposed 9 roundabouts. You realized from the data presented and logically assessing the choices, that the system needed to include all 9 intersections rather than the originally proposed 4, since AI Adaptive works as a total system and that comparing results to the proposed 9 roundabouts needed to include AI at all 9 intersections as well. Now TAMC staff is unfortunately proposing “recommend action” against your directive/vote to install AI at all 9 intersections and reduce that number to **only 2 intersections**. **Not only is this against your vote but also against the recommendations of the AI supplier for proper and optimal operation of the AI Adaptive system along the entire corridor.**

It is assumed, but not clearly stated, that the additional charges of \$352,400 by Caltrans to install the cameras and support the system is the reason for the new recommendation by TAMC staff, **instead of asking the Board to vote to add an additional \$317,000 to the originally \$500,000 (\$816,950 total)** to get the job done right and implement the AI system immediately, evaluate the results and also let the public experience the improved performance along the entire corridor.

I strongly urge the Board to allocate/approve the additional \$317,000 for a total of \$815,950 for all 9 intersections, instead of limiting the installation to a measly 2 intersections.

(Remember that this a small, in comparison, investment, that could save over \$200 million in unnecessary taxpayer funds for roundabouts and actually yield much better results)

In addition to destroying the entire AI/Roundabout evaluation comparison, there are **no bids or defined costs** from Caltrans or the vendor for doing just 2 and the teaching and learning curve with their associated costs for both the vendor and Caltrans was verified to be essentially the same for 2 or 9 intersections. Sending a maintenance crew out to wipe camera lenses or adjust the timing on 2 versus 9 intersections will not be much difference either. **It makes no logical sense to do 2 instead of 9 intersections**, plus dividing the evaluation up between the first 2 and then an additional 7 later will **add years** to the evaluation process and **increase the total cost** by dividing it into 2 segments.

I believe the Board needs to know the basis and details behind the Caltrans charges as to what exactly is estimated for installation and how much is for learning how to read the data collected and make minor changes to the signals timing limits as a result. Although the vendor of the AI system was not requested by Caltrans to do the installation, it is estimated to be \$23K-32K total

for camera installation by an experienced 3rd party contractor. The other \$320K of Caltrans costs is assumed to be for the monitoring and maintenance, which seems very high. The AI system vendor (Miovision) is already supplying with their equipment, in person training, before and after reports on the system performance, onsite turn on support and five years of additional maintenance and support.

In broad terms, the expectations from both parties would be:

From an installation perspective, Caltrans will need to:

- Physically install one camera per intersection
- Update the firmware on their existing controllers to enable NTCIP (the communications protocol needed for Miovision and most other technologies developed in the last 20 years)
- Plug in Miovision Core DCM in their cabinet
- Provide the detection configuration to Miovision
- Be available for questions and provide insight on how they want the adaptive system configured

For the installation, Miovision will be doing:

- Detection configuration
- Adaptive configuration
- Counts and analytics configuration
- Training for the Caltrans staff in person
- Conduct on/off testing and provide before/after reporting to Caltrans

For ongoing support/maintenance:

- Miovision will be available for modifications to the adaptive system
- Caltrans would need to make any changes to the controller
- Caltrans will need to physically wipe the camera lens one time per year
- Caltrans will need to provide time to cooperate in good faith for any troubleshooting, support, etc.

I am not sure how Caltrans charges for their time from employees, already on their taxpayer funded payroll, or how they came up with their \$320K charges for time not yet spent nor any experience of how much time it will actually take for this project over a 5-year period, but it seems appropriate for that information to be shared with TAMC and the public. There doesn't seem to be any out of pocket costs by Caltrans for any of the maintenance. The time taken to learn the system will be advantageously used by Caltrans to evaluate this AI System in other similar applications in District 5 and throughout the entire state of CA. This was one of the factors that was enthusiastically embraced by Caltrans engineers when first introduced to the capabilities of the AI Adaptive system. Caltrans also stated that Caltrans Headquarters was

setting up a section to pursue new technology. They would be getting this experience as a benefit of TAMC without sharing in the learning cost. This arrangement does not seem equitable but I do not know the usual sharing of costs between TAMC and Caltrans. The \$320K learning/maintenance fee would also be done over a long period of time and thus could payment also be distributed over the same period of time? Were there discussions/negotiations between TAMC Staff and Caltrans or does Caltrans unilaterally set the amount for TAMC to pay and not pursue any outside funds or grants themselves?

I again urge the Board to fund the entire \$816,950 (assuming that Caltrans will not reduce their fees) to get AI Adaptive installed at all 9 intersections immediately and observe the predicted excellent performance. Remember that the Hwy 68 Draft EIR cost was over a million dollars by comparison and the AI Adaptive will produce results now and bring this exciting new technology to the Hwy 68 corridor.

Thank you,

Dwight Stump