TAMC Board of Directors,

After months of receiving new facts and information about the benefits of using Ai Adaptive Signal Controls on the 9 intersections of Hwy 68, the TAMC staff is finally recommending that this beneficial technology be installed immediately to demonstrate how it will improve traffic congestion on this 8 mile stretch of highway. It is encouraging to see this change in position and the embracing of the same technology that has already produced excellent results in many similar situations in different parts of the US. Places like State Route 119 near Denver CO is very similar to Hwy 68 with distances between intersections and peak commute congestion. After installation of Adaptive Signal Controls at 13 intersections along approximately 10 miles of SR 119, the CO Department of Transportation reported a **22% travel time reduction, 52% delay reduction, 41% stop reduction, 27% speed increase**. It was also reported that the **corridors that installed AI Adaptive Signal controls experienced a 23-34% collision reduction**, which is a significant safety factor. It would be great to compare these significant results versus actual results of putting 9 roundabouts in 8 miles on a busy highway but that has **not been done any where in the US** (otherwise TAMC/Caltrans would report that data).

https://rhythmtraffic.com/how-the-city-of-longmont-co-cut-down-delays-in-traffic-by-52/

As Board members, I believe you need to listen to the glowing reports by both drivers and engineers for Missouri DOT in this short video describing the results of installing Adaptive Signal Controls with 12 signalized intersections on Missouri Route 291. It also reported a decrease in collisions and the video demonstrates how emergency responders have priority with the system to help with response times.

https://youtu.be/04HIKOJ5CNw

I urge the Board to support Caltrans in implementing the Adaptative Signal Technology at all 9 intersections ASAP to give the Hwy 68 commuters immediate improvement in commute congestion and show that the Board is open to 21st Century technology that can adapt to traffic situations in real time, adapt/integrate to advancements like autonomous vehicles and adjust to changing traffic volume in the future. The cost of installing the Adaptive Signal Technology at all 9 intersections is **less than \$500,000** and does not require any new studies or environmental impact reports. **That cost is less that half of the cost to just do the original Draft EIR** so it is definitely a great cost/benefit for TAMC and Monterey County.

Switch from 9 single lane to 3 two lane "hybrid" roundabouts

Now for the not so good news. The TAMC staff "Project Update" is still trying to hang on to the disproven statements and promote the installation of 3 roundabouts, instead of the original 9 and all of a sudden promote a "hybrid" design (which is just a 2 lane roundabout according to Doug), instead of the single lane roundabouts that had been sold to the public and detailed in the Draft EIR. I realize that it is very difficult to admit that the benefits of previous proposals have been disproven or defined more precisely and it is hard to leave all that time, beliefs and money spent behind and consider something different but facts are facts and things change. If you were driving down a road for a long time and suddenly realized that you were going in the wrong direction, you would not continue any longer, just because you had been on that road for a long time and that it looked good at first.

The extensive testing done by Caltrans over years and reported in public documents showed clearly that the roundabouts would allegedly **reduce the PM peak commute by only 5 minutes and the AM commute only marginally compared to doing nothing.** Now, Staff wants to promote a 2 lane "hybrid" roundabout, which Caltrans has rejected all along, without publishing any test results and stating in the report "Since intersection delay is not a CEQA environmental impact, this design revision does not require additional traffic analysis". So, they want you to believe that since single lane roundabouts didn't produce any significant results, the 2 lane ones will all of a sudden do something positive. All the 2 lane roundabouts will do is add more conflicting points for crashes since they still service a single lane highway, so the aggressive driver will use the extra lane to pass other vehicles in the roundabout before merging back into the single lane on the other side of the roundabout just like they do in the Pebble Beach/Holman Hwy roundabout. The "hybrid" is really **not** like the Pebble Beach roundabout solut work by having a majority of the traffic not even enter the roundabout, along with the approach speeds being different.

The 3 intersections selected for Phase 1

The 3 intersections selected for Phase 1 make no sense since the Caltrans testing and studies showed that the roundabouts would have **marginal improvement** over doing nothing and that even Doug has stated to TAMC committees on the record and in other conversations, that the AM congestion is not at the San Benancio intersection but rather occurs much further east where the 2 lanes merge into 1 lane near Portola Dr. You can confirm that fact in looking at Goole Maps during the AM rush hour to see where the congestion occurs and you can view the actual intersection itself via the Caltrans real time video camera. It is simply too many vehicles trying to go through the "funnel" into 1 lane. There are no reported test results that show roundabouts would improve the commute. So why is TAMC still wanting to spend millions to produce no benefit? Where is the testing for this 3 roundabout idea?

Safety focus and promotion points

It is important to note the report states the Adaptive Signals could provide "improved traffic flow along the corridor throughout the day and during special events and that improved traffic flow can reduce queue length and duration, which could reduce the frequency and severity of real-end collisions along the corridor". Given that 70% of all collisions that occur on Hwy 68 are rear end collisions, Adaptive Technology can have a huge positive impact. Not mentioned by Doug is the fact that actual corridor installations of Adaptive Signal Controls have shown a decrease in all collisions by 23-34%

The report says that Measure X funds were to improve safety and "address the safety issues along the Scenic State Troute 68 Corridor". So, what are the existing safety issues that need addressing? In spite of what Doug and Caltrans does in listing a few short segments between intersections on Hwy 68, Caltrans own records show that the 8 mile stretch of Hwy 68 to be **under the state collision average since 2017**. Records obtained from Caltrans also show that collision rates in each of the 9 intersections have been consistently **below the state average since 2017 and have not had a single fatality** that the proposed roundabouts could have prevented. TAMC's own Collision Map also shows **no fatality or serious injury in any of the 9 intersections** from December 2012 to December 2018. Hwy 68 also does not qualify for

Federal Safe Streets Grants for areas with safety issues as documented by history and thus it will be very difficult to qualify for funds for the roundabouts as shown in the following link.

Safe Streets and Roads for All (SS4A) Grant Program | US Department of Transportation

Also not mentioned by Doug is that fatalities do occur in roundabouts. A study by the US DOT that showed an increasing number of fatalities and serious injury collisions occurring in roundabouts. In 2012 there were **12 fatalities reported in roundabouts** which were estimated to be about 3,200 in the US at that time. That is a .375% rate. The same year there were reported 8,851 fatalities at intersections in the US. There are a reported 6,302,865 intersections in the US so that yields a rate of .140%. So, is it possible that roundabouts are not statistically safer that regular intersections simply because that are so few compared to regular intersections and thus do not have the same exposure?

Also, the **predicted 35% decrease** in all collisions that was promised for the Pebble Beach roundabout turned out to be untrue. The actual collision rate in 2013 at the signalized intersection before construction was .31 compare to the state average of .55. The actual collision rate after opening in 2017 was <u>higher</u> for each year.

- 2017 8 collisions, .74 actual rate versus .59 state average
- 2018 14 collisions, 1.27 actual rate versus .59 state average
- 2019 13 collisions, .57 actual rate versus .59 state average
- 2020 10 collisions, 1.60 actual rate versus .59 state average
- 2021 7 collisions, 1.13 actual rate versus .59 state average
- 2022 10 collisions, 1.61 actual rate versus .59 state average

So, there is really no history of safety problems in any of the 9 intersections that roundabouts would address and that the only reason stated by Doug is that "I am fairly confident that sometime in the future there will be at least one fatality or serious injury that would have been avoided by a roundabout". Is that feeling, reason enough to spend over \$200 million on intersections without a safety problem history when I'm sure there are other intersections in Monterey County that do have a safety history problem and would benefit more?

Doug also states "Congestion and safety issues are primarily the result of the conflicting traffic movements at the signalized intersections" without any proof or data to support his assertion. Adaptive technology addresses the optimization of traffic control with the signals and would adapt in real time 24/7.

Emergency Response Times

Doug's report finally acknowledges that the **roundabouts will increase emergency response times,** even though TAMC's website still states that they will "reduce emergency response times". He keeps trying to say that Caltrans will "continue to work with emergency responders" but the facts are still the facts....**Roundabouts increase emergency response times.** Doug's statement that the Fire Department determined that the increase in response times is 8-18 seconds is simply not true and not in agreement with the Fire Chief. At least he admits that "roundabouts are designed to slow emergency vehicles". Anyone using logic knows that a firetruck using a congested roundabout versus a regular intersection with Opticom is going to be delayed much longer, especially if traffic stops and can't clear out of the roundabout. There are no options around it. That is why the Fire Chief expressed his concern about Hwy 68 with roundabouts, being problem as an evacuation route in case of an emergency. Doug saying that "roundabouts benefit emergency responders by improving peak hour traffic flow" is just plan false since they don't really improve the flow for regular vehicles and will slow down the responders at each roundabout versus the current signalized intersections. Adaptive Signals Controls can actually give the first responders priority over other vehicles to actually decrease their response times.

Signal Modification Alternative

The Report's description of this Alternative 2 focuses only on the intersection widening portion and says nothing about the use of Adaptive Signals which was always a part of the alternative. Caltrans was frequently asked at the Public Hearing why the Alternative 2 could not use just the Adaptive Signals without doing the widening, which was the negative part due to the increase of conflict points and the resulting collisions. **Only now is Caltrans and TAMC considering and acknowledging that Adaptive Signals alone would produce great results and should be considered as an Alternative.**

Public Comments and Responses

The response to the question...**What about upgrading the existing traffic signals?** does not even address the question but instead goes into a description of merging and conflict points that are part of the original Alternative 2. It does not address upgrading the signals at all, which is what the community wants to be done by **adding the Adaptive Technology to the existing signals.**

The response to the question about "implementing adaptive upgrades along the corridor" is encouraging by saying the TAMC staff supports doing adaptive as "an interim operational improvement" but gives no reason as to why it needs to be "interim" and why it cannot be "a new alternative for this project". Why is a technology that produces much better results than roundabouts at actual installations across the country, not be considered as a viable alternative, especially at a fraction of the cost and not needing any additional environmental reports. Also, exactly what engineering analysis was done my Caltrans or TAMC the "indicates implementing adaptive signal controls along the corridor will provide modest improvements to traffic flow" when actual results from actual installations across the country show significant results of 22% travel time reduction, 52% delay reduction, 41% stop reduction, 27% speed increase. I submit that those results are not "modest". The fact that Adaptive Technology has resulted in decreasing collisions by 23-34% should also qualify it a "project alternative" since it is making the highway safer. To say that Alternative Technology cannot be considered since it does not "reduce the expected collision rates at intersections because it does not reduce the number of conflicting movements" is just plain crazy, when it can reduce the type of collisions that occur the most frequently on 68. Rember that the newly installed roundabout at Pebble Beach actually increased the collision rate from the signalized intersection that it replaced. Also, it is a well-accepted fact that collision rates for roundabouts are higher than regular intersections.

The design of the newly proposed "hybrid" roundabout has not been revealed but has been described by Doug as a 2 lane instead of a 1 lane. It has not been tested and there is no reason to believe that it will produce better results than the original 1 lane version that produced no significant congestions relief during peak hours but did produce delays during all other times of day.

There is no data to support that the 3 most eastern intersections are deserving of immediate relief and if so, the immediate relief would be provided by installing Adaptive Technology instead of roundabouts.

The question on emissions is answered in a very evasive way and totally avoids the truth that <u>9</u> <u>roundabout will increase net emissions.</u> Doug acknowledged that their analysis of emissions failed to include the increased emissions caused by acceleration emissions which are 5-10 times greater that idle emissions and which occur during the 20 hours of non-peak commute time. Now he is trying to restrict the "reduce emissions claim" to only the peak commute times and ignore that rest of the day which is intellectually dishonest.

Nothing in the proposed roundabouts do anything for improving things for **bicyclists**. That is even confirmed on the TAMC website. Instead, the roundabouts will make conditions less safe for bicyclists by forcing them to merge with traffic (that will exceed them in speed) before entering the roundabout and then continuing with vehicles in the roundabout before exiting. The founder of the Sea Otter Bike Classic describes the roundabout in Pebble Beach as a death trap to be avoided. Studies in Europe also show a 40% increase of fatalities and serious injuries for bicyclists in roundabouts.

Roundabouts suck for cyclists: here's why - Velo (outsideonline.com)

Conclusion

Thank you for reading this information and considering a different perspective on some of the issues addressed by the staff report. I urge you support the TAMC staff recommendation to install Adaptive Technology along the Hwy 68 corridor immediately so the travelling public can benefit now from the benefits that it brings to congestion relief, decreased emissions, decreased emergency response times and a decrease in collisions.

Sincerely, Dwight Stump