



**DATE:** January 24, 2019

**TO:** Transportation Authority of Marin Board of Commissioners

**FROM:** Dianne Steinhauser, Executive Director  
Dan Cherrier, Deputy Executive Director

**SUBJECT:** Upper Deck Third Lane on Richmond-San Rafael Bridge (Action), Agenda Item 11

---

## **RECOMMENDATION**

The TAM Board approve the following:

- 7a. Approve the Chair to send a letter (attachment pending) to the Bay Area Toll Authority requesting coordination and cooperation regarding further operational changes to the Richmond-San Rafael Bridge,
- 7b. Approve the Chair to send the attached letter to Caltrans requesting that a load analysis be performed by Caltrans on the Richmond-San Rafael Bridge, and Caltrans participate in TAM's further traffic studies;
- 7c. Reallocate \$148,000 of funds previously allocated to the 580/101 direct Connector Project to fund project management and a traffic study of westbound traffic entering Main under a shoulder-running lane scenario on the Richmond-San Rafael Bridge.

Note, the Finance and Policy Executive Committee recommended approval of these documents and actions.

## **BACKGROUND**

The Bay Area Toll Authority (BATA) has completed a shoulder-running traffic lane operating during the commute periods and on weekends going eastbound on the Richmond-San Rafael Bridge. This third lane has resulted in a substantial reduction in delay for traffic in Marin crossing the RSR Bridge in the afternoon peak travel period. TAM has been working closely with BATA, Caltrans, and the Contra Costa Transportation Authority for years in support of this effort. In addition to the third lane, TAM worked closely with the City of Larkspur for improvements on East Sir Francis Drake Boulevard approaching the RSR Bridge. These improvements opened shortly after the eastbound shoulder-running lane, further reducing the delay approaching the Bridge for vehicles originating from Sir Francis Drake Boulevard. TAM is also advertising in the next few months a major project to widen the northbound Highway 101 offramp to Bellam Blvd and improvements through the Bellam intersection, further relieving congestion approaching the RSR Bridge eastbound from Highway 101.

Along with the third lane eastbound, BATA has pursued an upper deck multi-use path westbound. The path is part of a larger Bay Trail system of pathways across all of the Bay Area's toll bridges. The upper deck pathway was part of the package of improvements that BATA pursued: the lower deck shoulder running lane for vehicles, the upper deck shoulder area multi-use path dedicated to bicyclists and pedestrians, and the new dedicated multi-use path from Pt. Richmond to the Pt. Molate exit along Highway 580 westbound in Richmond. An early supporter of the multi-use path was the San Francisco Bay Conservation and Development Commission (BCDC). BCDC conditioned the use of the lower deck shoulder-running lane with a requirement for the upper deck multi-use path improvements.

In October of 2017, BATA entered into a contract to procure the upper deck barrier system for \$10.5 million including contingency. This includes the cost of a new machine to move the barrier. Following that, in January 2018, BATA awarded a contract for \$16 million including contingency for improvements on the bridge and in Richmond. This work is scheduled to be completed this Spring 2019, with the multi-use path likely opened in late April.

## **DISCUSSION**

Along with substantial congestion going eastbound in the afternoon peak travel period, there exists substantial congestion going westbound in the morning peak travel period. This congestion was apparent to Marin and to Contra Costa, who raised the issue in 2014-15 during the early design phases of the upper deck multi-use path. In response, BATA is investing in a moveable traffic barrier, in lieu of a fixed traffic barrier, that could eventually enable the upper deck shoulder to be used as both a multi-use path and a traffic lane with separate hours of operation. This option is not part of the current project scope, but BATA has been indicating a willingness to further consider an upper deck shoulder running lane for vehicles. Note that since 2013, the traffic demand on the bridge, daily, has risen 21 percent from 68,000 to 82,000.

One year ago, at the January 25, 2018 TAM Meeting, the Board sent the attached letter to BATA to explore moving the upper deck barrier to facilitate a third traffic lane during the am peak period. In response to TAM's request, BATA funded an interim study. BATA conducted the study and shared preliminary results with the corridor partners in October 2018. The preliminary study results concluded that there were possible substantial constraints to implementing a joint-use shoulder lane on the upper deck. The BATA study indicated that additional analysis was necessary to explore the structural adequacy of the Bridge for three lanes of traffic along with the weight of the moveable barrier. The study also indicated that the downstream effects of the additional traffic in Marin could be a substantial impact.

Since the traffic studies were completed for the lower deck project, in 2014-15, traffic approaching the toll plaza from the east has increased. Westbound delays are currently routinely exceeding 22 minutes during the am peak period. The delay is forecast to exceed 27 minutes by 2020.

## **Recommendation**

It is recommended that a request be made of Caltrans to work with BATA to complete the additional studies necessary to confirm whether the bridge can handle the additional loading of the moveable barrier along with a lane of traffic. Caltrans, as owner of the bridge, would need to make the ultimate determination of whether the structure can bear the load, or what needs to be retrofitted to allow the loading, along with cost.

It is also recommended that TAM conduct further analyses of traffic impacts in Marin, to determine in more detail what those impacts are, when they would occur, and what changes could be made to ameliorate any impacts. The detailed traffic analysis will require a specialized consultant. Counts will need to be taken, along with a detailed destination analysis and a local model created to forecast the expected additional traffic loads.

## **FISCAL CONSIDERATION**

At the July 28, 2016 TAM meeting, the Board allocated \$250,000 to this Richmond San Rafael Bridge Corridor. Initial work was conducted in late 2016 and early 2017 on the Northbound U.S. 101 to Eastbound I-580 Direct Connector Project, primarily in preparation for Regional Measure 3 (RM3) - to be able to illustrate the scope, cost, and benefits, along with visual depictions, of the Connector options. To date, \$102,000 has been expended leaving a balance of \$148,000. The expended money was instrumental in doing the necessary work to have the project included in the voter approved RM3 list of funded projects, with an approved set-aside of \$135 million for the Connector out of RM3 toll funds. Unfortunately, at this time, MTC/BATA has decided not to allocate any of the new RM3 toll funds to programs and projects while waiting to see how current litigation plays out.

Staff recommend that the remaining funds totaling \$148,000 be reallocated to the upper deck traffic study and necessary project management to continue this effort.

## **NEXT STEPS**

Upon Board approval, TAM will immediately issue a Request for Proposals to conduct the traffic study. Since, there are only a few firms that perform this type of service, it is expected that an expedited procurement process will allow for the firm to be approved at the March Board meeting. The traffic study should be completed within 6 months of starting, and will be coordinated with Caltrans, the County of Marin, and the cities of San Rafael and Larkspur. It is expected that Caltrans could complete the structural analysis within the same time frame.

The partners are invited to consider further steps once the studies are complete - the results of the studies will determine scope of improvements going forward, as well as environmental clearance, design and construction timeframe. Funding will need to be addressed as well.

## **ATTACHMENTS**

- A: Attached - Letter to BATA requesting ongoing Coordination and Cooperation
- B: Attached - Letter to Caltrans Requesting Structural Analysis
- C: Attached - Letter to BATA dated February 7, 2018

THIS PAGE LEFT BLANK INTENTIONALLY



900 Fifth Avenue  
Suite 100  
San Rafael  
California 94901

Phone: 415/226-0815  
Fax: 415/226-0816

www.tam.ca.gov

**Belvedere**

James Campbell

**Corte Madera**

David Kunhardt

**Fairfax**

John Reed

**Larkspur**

Dan Hillmer

**Mill Valley**

Stephanie Moulton-Peters

**Novato**

Eric Lucan

**Ross**

P. Beach Kuhl

**San Anselmo**

Brian Colbert

**San Rafael**

Gary Phillips

**Sausalito**

Ray Withy

**Tiburon**

Alice Fredericks

**County of Marin**

Damon Connolly  
Katie Rice  
Kathrin Sears  
Dennis Rodoni  
Judy Arnold

January 24, 2019

The Honorable Jake Mackenzie, Chair  
Bay Area Toll Authority  
375 Beale Street  
San Francisco, CA 94105

Dear Chair Mackenzie:

Marin has been the beneficiary of significant investment by the Bay Area Toll Authority in the Richmond-San Rafael Bridge corridor. The opening of the Third Lane Eastbound, as a shoulder-running lane on the lower deck, has greatly improved traffic conditions in Marin, benefitting multiple counties. TAM and our member jurisdictions are very grateful for that investment.

The Transportation Authority of Marin (TAM) appreciates the ongoing efforts of the Bay Area Toll Authority to open a multi-use pathway on the Richmond San Rafael Bridge Westbound. While TAM recognizes the multi-use path, scheduled to open in the next few months, is an important link in the Bay Trail system, TAM requests that consideration continue to be given to addressing traffic congestion in Contra Costa and across the bridge caused by motorists entering Marin. In that regard, the prudent investment in the moveable barrier system being placed on the westbound upper deck could allow the shoulder area to be jointly operated as a barrier-protected multi-use path and a third lane for traffic during the morning commute. Our goal is not to pit single occupancy vehicles against bikes. We remain open to ideas like increased transit and carpools to maximize mobility and reduce congestion.

TAM appreciates that the Bay Area Toll Authority, BATA, made the investment to study this important concept of a multi-use pathway jointly operated with a third vehicle lane. Our Marin workers are continuing to experience daily delays coming across the bridge, delays that are expected to increase to 27 minutes or more by the year 2020.

While the BATA draft study exhibits permanent long-term solutions, TAM believes short-term solutions to benefit Marin workers and East Bay residents should also be considered. In that regard, TAM looks forward to supporting elements of BATA's "Richmond Bridge Forward," a suite of options for bridge users to consider utilizing, to aid in congestion relief and reduce emissions. TAM will be incorporating elements into our newly launched "Marin Commutes" program, a large suite of Transportation Demand Management, TDM, options Marin has been dedicated to investing in and implementing. We are concerned that carpools, vanpools and transit will elicit little interest, unless an upper deck lane with a travel time advantage, is considered.

TAM believes that joint usage of the shoulder lane by both vehicles and bicyclists should be pursued, the moveable barrier system making that option feasible. In that regard, TAM is coordinating closely with Caltrans on a detailed structural loading analysis of the bridge, and detailed traffic analysis of potential traffic impacts in Marin. BATA has considered a 4-year pilot as the suitable longevity of a multi-use-pathway-only utilization of the upper deck shoulder area. TAM requests an assessment period of **6 months** be considered, commencing with the current planned opening of the multi-use path in April 2019. Studies of the structure and of traffic should be completed within the first six months of pathway operation, followed by a review and evaluation of options for operating the corridor by all the partners.

The record low unemployment in Marin County has Marin County employers stating that problems hiring and retaining employees is of great concern. The need to address the commute of employees coming from the East Bay is growing daily. We are concerned that a relatively small number of users of the multi-use path may adversely affect the ability of Marin workers to meet their employment obligations. Many of our teachers, safety workers such as police and fire, and other workers depend on the Bridge daily to get to work on time.

TAM continues in our dedication to making this corridor operate as effectively as possible for all users. Supervisor Damon Connolly, our Metropolitan Transportation Commission/Bay Area Toll Authority Commissioner, and I are available to discuss this further with the BATA leadership and assist in moving these ideas forward.

Sincerely,

Stephanie Moulton-Peters  
TAM Chair

DRAFT



900 Fifth Avenue  
Suite 100  
San Rafael  
California 94901

Phone: 415/226-0815  
Fax: 415/226-0816

www.tam.ca.gov

**Belvedere**  
James Campbell

**Corte Madera**  
David Kunhardt

**Fairfax**  
John Reed

**Larkspur**  
Dan Hillmer

**Mill Valley**  
Stephanie Moulton-Peters

**Novato**  
Eric Lucan

**Ross**  
P. Beach Kuhl

**San Anselmo**  
Brian Colbert

**San Rafael**  
Gary Phillips

**Sausalito**  
Ray Withy

**Tiburon**  
Alice Fredericks

**County of Marin**  
Damon Connolly  
Katie Rice  
Kathrin Sears  
Dennis Rodoni  
Judy Arnold

January 24, 2019

Mr. Tony Tavares  
Director, District 4  
Caltrans District 4  
P.O. Box 23660  
Oakland, CA 94623-0660

Dear Mr. Tavares:

The Transportation Authority of Marin (TAM) has been working diligently with the Bay Area Toll Authority (BATA), Caltrans, and the Contra Costa Transportation Authority over the past several years to institute operational improvements on the Richmond San Rafael Bridge. Most recently, BATA completed an administrative draft evaluation of the ability to place a shoulder running lane operated via the moveable barrier system on the upper deck of the Richmond San Rafael Bridge, a complement to the shoulder running lane on the lower deck. The upper deck lane would be operated in the morning peak period much like the lower deck lane is operated in the afternoon peak period.

BATA's preliminary results indicate the bridge structure may not be able to handle the weight of a barrier along with a lane of traffic without experiencing stress. While BATA pointed this out as a potential fatal flaw to instituting the lane, a more detailed load analysis was also recommended as follow up to the study.

TAM is requesting that Caltrans work in coordination with BATA to conduct a necessary load analysis on the bridge, as soon as feasible, and report results to the corridor partners.

A secondary issue is the eventual traffic demand in Marin if the bottle neck is removed in Contra Costa. TAM intends to fund and conduct an investigation into the traffic issue in the coming months, and ask that Caltrans participate in the technical team. Both issues are critical to resolving the feasibility of this facility.

Please let us know how we can be of assistance in conducting the bridge analysis and any other work the Department deems necessary to. Further considering the upper deck lane.

Please contact Dianne Steinhauser, TAM's Executive Director, at 415-226-0820 to coordinate further.

Sincerely,

Stephanie Moulton-Peters  
Chair  
Transportation Authority of Marin

THIS PAGE LEFT BLANK INTENTIONALLY



900 Fifth Avenue  
Suite 100  
San Rafael  
California 94901

Phone: 415/226-0815  
Fax: 415/226-0816

www.tam.ca.gov

**Belvedere**  
James Campbell

**Corte Madera**  
Diane Furst

**Fairfax**  
John Reed

**Larkspur**  
Dan Hillmer

**Mill Valley**  
Stephanie Moulton-Peters

**Novato**  
Eric Lucan

**Ross**  
P. Beach Kuhl

**San Anselmo**  
Brian Colbert

**San Rafael**  
Gary Phillips

**Sausalito**  
Ray Withy

**Tiburon**  
Alice Fredericks

**County of Marin**  
Damon Connolly  
Katie Rice  
Kathrin Sears  
Dennis Rodoni  
Judy Arnold

February 7, 2018

The Honorable Jake Mackenzie, Chair  
Bay Area Toll Authority  
375 Beale Street  
San Francisco, CA 94105

Dear Chair Mackenzie:

The Transportation Authority of Marin (TAM) requests that the Bay Area Toll Authority explore implementing a traffic lane on the westbound upper deck of the Richmond San Rafael Bridge. While TAM recognizes the bike/pedestrian path is an important link in the Bay Trail system, TAM requests that consideration be given to the flexible use of the shoulder area. We believe the moveable barrier system on the upper deck could allow a variable use of the shoulder area – for vehicular traffic during the peak commute and for bicyclists at other times. The TAM Board authorized this request at their meeting of January 25.

TAM requests that data be gathered and thoroughly assessed for bicycle, pedestrian, and vehicular usage in considering a solution. We recognize that lane configurations, toll plaza constraints, traffic impacts on both sides of the bridge, and safety considerations will need to be evaluated in crafting the best solution. Consideration should be given towards implementing joint use at the start of operations.

While there have been discussions in the past regarding this joint system of traffic management and bike/pedestrian access on the upper deck shoulder area, any final package of improvements should also consider the inclusion of joint operation of the lower deck shoulder area.

We will continue to work with the partners who have successfully delivered the lower deck third lane and the upper deck bike/pedestrian pathway, to make this upper deck project a reality. We appreciate the work that has been done to date to address our multimodal needs along with traffic congestion in Marin.

Thank you and I look forward to continued cooperation in this regard.

Sincerely,

Stephanie Moulton-Peters  
Chair

THIS PAGE LEFT BLANK INTENTIONALLY