



M E M O R A N D U M
DEPARTMENT OF PUBLIC WORKS
TRANSPORTATION DIVISION
County of Placer

TO: Board of Supervisors

DATE: April 27, 2021

FROM: Ken Grehm, Director of Public Works
By: Katie Jackson, Associate Civil Engineer

SUBJECT: Tahoe Traffic Mitigation Fee Update / Amendment to Professional Services Agreement No. 001250

ACTION REQUESTED

Authorize the Director of Public Works, or designee, to execute the First Amendment to Professional Services Agreement No. 001250 with BAE Urban Economics, Inc for the Tahoe Traffic Mitigation Fee Update, in the amount of \$41,250, to increase the agreement amount from \$99,835 to \$141,085, and authorize the Director of Public Works, or designee, to execute changes up to 10% of the contract amount consistent with the County Procurement Policy Manual.

Approve a Budget Amendment (AM-00462/JE100-0027696) increasing the Tahoe Traffic Fee Update project (PJ01307) revenue and expenditure by \$41,250 in FY 2020-21.

BACKGROUND

The Department of Public Works (DPW) is currently under contract with BAE Urban Economics, Inc. for the Tahoe Traffic Mitigation Fee Update. The Tahoe Fee District is one of eleven in the Countywide Traffic Fee Program and includes the unincorporated area east of the Sierra Crest, inside and outside the Tahoe Basin. Revenues from the fee program are used to fund transportation improvements to offset the impacts of new development. This impact fee program must comply with the Mitigation Fee Act (California Government Code Section 66000 et seq., also known as Assembly Bill 1600).

The consultant is currently assisting the County in updating the Tahoe Fee District project list, cost estimates, and nexus study. The primary focus of the fee update is incorporating projects that reduce Vehicle Miles Traveled (VMT). The attached First Amendment would expand the existing contract to quantify the VMT benefit of each project in the fee program. It would also quantify the VMT benefit of potential future County projects and programs. The VMT reductions achieved by the Tahoe Fee Program would then be attributed to future land development projects in the Tahoe Fee District with the payment of the fee. VMT reductions may be required for land development projects under the County's VMT thresholds and/or Tahoe Regional Planning Agency's (TPRA's) Project Impact Assessment Framework, pending adoption.

ENVIRONMENTAL IMPACT

The action requested is not a project, pursuant to CEQA Guidelines section 15378(b). In addition, this action is exempt under CEQA Guidelines sections 15262 and 15306 and Public Resources Code section 21080.5.

FISCAL IMPACT

This Agreement is funded by a budget amendment (AM-00462/JE100-0027696), transferring \$41,250 from Tahoe Fee District Traffic Mitigation Fee Program (CC19034) to the Tahoe Traffic Fee Program Update (PJ01307) for FY 2020-21.

ATTACHMENT

Tahoe Traffic Mitigation Fee Update - First Amendment to Professional Services Agreement No. 001250

FIRST AMENDMENT TO PROFESSIONAL SERVICES AGREEMENT BETWEEN THE COUNTY OF PLACER AND BAE URBAN ECONOMICS FOR: TAHOE TRAFFIC MITIGATION FEE UPDATE

THIS FIRST AMENDMENT TO THE PROFESSIONAL SERVICES AGREEMENT BETWEEN THE COUNTY OF PLACER AND BAE URBAN ECONOMICS for the Tahoe Traffic Mitigation Fee Update is made and entered on this _____ day of _____, 2021, by and between the COUNTY OF PLACER ("County"), and BAE Urban Economics, Inc. ("Contractor"), collectively referred to as the "Parties".

WHEREAS, on July 8, 2020, COUNTY and CONTRACTOR entered into the Professional Services Agreement for preparation of the Tahoe Traffic Mitigation Fee Update (Contract) whereby consulting services would be provided to the COUNTY; and

WHEREAS, the parties have agreed to additional and amended services to be provided by Contractor under said Contract and the compensation for those additional services,

NOW, THEREFORE, IT IS MUTUALLY AGREED by and among the parties as follows:

1. CONTRACTOR agrees to perform the amended and additional services set forth below for an additional amount not to exceed Forty One Thousand, Two Hundred and Fifty dollars (\$41,250).
2. Pursuant to Section 4 of the Contract, the following services will be added to Exhibit A:

Task 8: VMT Benefit Analysis

Task 8a: Study Initiation and Coordination

LSC will initiate this study with a series of virtual meetings with DPW staff to address the issues identified in the notes shown in Table A. We will also participate in up to 5 additional virtual meetings to review progress (on roughly a bi-weekly schedule).

Task 8b: Development of Detailed Transit Expansion Plans

Many of the CIP projects consist of the capital elements of broader transit strategies to expand transit services using new capital investments, including transit-only lanes on SR 89 and SR 267, signal pre-emption and new buses or microtransit fleets. As both capital and ongoing operating investments are needed to achieve VMT reductions, it is necessary to define the proportion of the total VMT benefit that can be allocated to the TTF elements. Additionally, many of the capital investments would have very low VMT benefit if implemented at today's relatively low level of transit service. These transit service expansions would far exceed the service improvements identified in the TART Master Plan, which is more of a short-term (5 year) plan considering the funding levels deemed available in the near future as of 2017. It is therefore necessary to define scenarios for transit expansion that could be served by these new capital investments, both to define the VMT benefits as well as to define the proportion allocated to capital vs. operating funding.

Task 8c: Research Regarding Mode Shifts Generated by Bicycle & Pedestrian CIP Elements

Many of the CIP elements included to reduce VMT consist of specific improvements to bicycle and pedestrian travel (such as trail crossing enhancements or short lengths of sidewalks/bike facilities). For longer facilities, the TRPA Bicycle Trail User Model provides guidance on new user generation (as a basis for defining VMT reduction). In addition, there is some research conducted as part of the TRPA Regional Transportation Plan that provides generic mode shift percentages for various potential treatments. However, there still is a need for additional research into benefits of specific treatments with regards to new user generation or mode shifts. Once defined, these factors can be applied to more readily available Tahoe-specific data regarding existing travel patterns to define VMT benefits for particular CIP elements.

Task 8d: Calculation of VMT Reductions

Table A presents the specific methodologies that would be used to estimate VMT reductions. Note that several projects would require modifications to VMT benefits defined by Kittelson Associates as part of the RTTP in order to reflect the specific characteristics of the CIP elements and/or the transit service forecasts defined in Task 1. The focus of this analysis will be on a busy summer day, for the pedestrian/bicycle CIP measures. For the transit and parking management measures, we will evaluate both busy summer and busy winter days. Next, for each CIP measure the ratio of annual to peak-day VMT benefits will be estimated, based upon (1) existing ratios defined in the bicycle trail user model and counts presented in the RTTP for bicycle and pedestrian CIP elements, (2) existing annual and peak day TART ridership data for transit CIP elements and (3) annual to peak day parking factors identified in the RTTP for parking management. For those CIP elements that only generate significant VMT benefits in parallel with transit service expansions, we will identify the proportion of the VMT benefit associated with the capital improvement based on the annualized capital cost over a 20-year period compared with the annual operating cost of the transit service expansion.

Task 8e: Study Documentation

LSC will prepare a Technical Report detailing the assumptions, methodologies and results of the VMT Benefits Study, along with a series of tables. An administrative draft version will first be prepared for staff review. After review and discussion, a public draft report will be prepared. Following a review process, a final report will be prepared. LSC will participate in up to 3 meetings as part of this process to present and discuss the findings.

3. The following Fee Estimate Calculation is added to Exhibit B:

Staff Person Labor (hours & billing rates)							
	BAE Managing Principal	BAE Admin.	LSC Principal	LSC Engineer	LSC Support Staff	Total	
Total Hourly Rate (Including Salary, Overhead, and Profit)	\$310	\$50	\$220	\$115	\$75	Hours	Cost
Task 8a: Study Initiation and Coordination	10	11	12	8	4	45	\$7,510
Task 8b: Development of Transit Expansion Plans	0	0	24	0	0	24	\$5,280
Task 8c: Research Regarding Mode Shifts	0	0	12	28	0	40	\$5,860
Task 8d: Calculation of VMT Reductions	0	0	48	32	0	80	\$14,240
Task 8e: Study Documentation	6	0	24	8	4	42	\$8,360
						Total Cost	\$ 41,250

4. The first paragraph of Section 2 of the Contract is amended to read:
 County's total fiscal obligation under this Agreement shall not exceed \$141,085.
5. Except as specifically modified above, all of the remaining terms and conditions of the Contract shall remain and continue in full force and effect.
6. This contract may be signed in counterparts, each of which shall constitute an original and which collectively shall constitute one instrument.

CONTRACTOR:

By: _____ Date: _____

Print: _____
 Name and Title

By: _____ Date: _____

Print: _____
 Name and Title

COUNTY OF PLACER:

By: _____ Date: _____

Print: _____
 KEN GREHM, DIRECTOR of PUBLIC WORKS

Approved as to form:

By: _____ Date: _____

Print: _____
 COUNTY COUNSEL

EXHIBITS:

Exhibit A: Table A: Proposed VMT Benefit Analysis Methodology

TABLE A: Proposed VMT Benefit Analysis Methodology

Project Description				In TTF CIP?	VMT Analysis Methodology	Notes
Roadway or Project Type	Location	Summary	Description			
SR 267	Town of Truckee to Highlands View Drive	Transit Improvements	Widen from 2 to 3 lanes to accommodate reversible managed lane for transit vehicles.	Yes	Kittelson 1/24/20 memo RE: Adaptive Corridor Management and Transit Lane Focus Study identifies travel time savings that result in a 24 percent increase in transit ridership (based on elasticity) in winter and 17% in summer. This could be multiplied by existing seasonal ridership to define ridership increase and divided by avg. vehicle occupancy (AVO) to estimate VMT reduction. Without expansion of transit service, VMT reduction would be very limited.	VMT benefits without transit service expansion would be very limited. Expanded VMT benefits would be a combination of capital improvement (in CIP) and expansion of transit services. Allocate % to CIP element based on ratio of annualized capital vs annual operating cost?
SR 28	SR-89 ("Wye") to Lighthouse Center (Tahoe City)	Traffic Operations / Multimodal Enhancements	Safety improvements such as median refuge islands, bulb-outs, sidewalk connections, driveway ingress/egress improvements, crosswalk marking adjustments, bicycle connections, and traffic signal at Grove Street that would reduce vehicle congestion and improve pedestrian mobility.	Yes	Research pedestrian activity % increase generated by crosswalk improvements X existing crosswalk activity X avoided auto trip length (0.5 mi?) / AVO	
	SR 267 to west of Beach Street	Safety Improvements	Reduce the number of travel lanes from 5 lanes to 3 lanes (one lane in each direction plus two-way left turn lane).	Yes	Research pedestrian activity % increase generated by crosswalk improvements X existing crosswalk activity X avoided auto trip length (0.5 mi?)/AVO + bicyclist % increase generated by class II improvements X existing cyclists X avoided auto trip length (3 miles?)/AVO	
	Various intersections (Tahoe City)	ITS / Multimodal Enhancements	At four intersections (Commons Beach Road, Jackpine Street, Cobblestone, and Lighthouse Center) implement pedestrian crossing enhancements such as RRFB, high-vis, LED enhanced signs, advance flashing warning signs, refuge island in TWLTL	Yes	Research pedestrian activity % increase generated by crosswalk improvements X existing crosswalk activity X avoided auto trip length / AVO	Included in first SR 28 CIP measure
SR 89	Fanny Bridge and West Lake Blvd	Complete Streets & Bridge Rehabilitation	Phase 2 of the Truckee River Bridge Crossing includes construction of a roundabout at SR 28/West Lake Blvd, rehabilitation of Fanny Bridge, rebuild West Lake Blvd into a complete street with sidewalk on both sides, enhanced crossings, parallel parking, etc.	Yes	Fanny Bridge EIR has estimates of VMT reductions of new road.	All benefits will be assumed to be assigned to future CIP project, even though portions already built.
	From Bridge 5 (Silver Creek Campground) to Rampart (approx 4.2 miles)	Transit Improvements	Widen from 2 to 3 lanes to accommodate reversible managed lane for transit vehicles	Yes	Kittelson 1/24/20 memo RE: Adaptive Corridor Management and Transit Lane Focus Study identifies travel time savings that result in a 11 percent increase in transit ridership (based on elasticity) in winter and 8% in summer for the full corridor. No forecast available for the smaller project area. If available, this could be multiplied by existing seasonal ridership to define ridership increase and divided by vehicle occupancy to estimate VMT reduction. Without expansion of transit service, VMT reduction would be limited multiplied	VMT benefits without transit service expansion would be very limited. Expanded VMT benefits would be a combination of capital improvement (in CIP) and expansion of transit services. Allocate % to CIP element based on ratio of annualized capital vs annual operating cost?
	Tahoe City to El Dorado County (unsignalized crossings)	Pedestrian / Bicycle Enhancements	Pedestrian crossing enhancements such as RRFB, high-vis, LED enhanced signs, advance flashing warning signs, refuge island in TWLTL	Yes	Research Class I trail user % increase associated with improved xwalk conditions / avoided vehicle occupancy X average trip length	
Bike & Pedestrian	Tahoe City Lakeside Multi-Use Trail	Multi-Use Trail	Proposed 0.5 miles of Class I bike trail from Fanny Bridge/Dam through central Tahoe City to connect with the Commons Beach boardwalk trail.	Yes	Review Tahoe Bike/Ped Model to assess usage /Vehicle occupancy X trip length/AVO	
	Class I Trail Sunnyside to Lower Sequoia	Multi-Use Trail	Construct a Class I Bike Trail from Sunnyside to the Intersection of Lower Sequoia & State Route 28	Yes	Review Tahoe Bike/Ped Model to assess usage /Vehicle occupancy X trip length/AVO	Needs to reflect that there already is Class III in this corridor
	Martis Valley Trail	Multi-Use Trail	Segment 3F of the multi-use trail connecting Northstar Village with the Town of Truckee	Yes	Review Tahoe Bike/Ped Model to assess usage /Vehicle occupancy X trip length/AVO	
	Truckee River Trail	Multi-Use Trail	Multi-Use trail extending the existing trail to the Town of Truckee	Yes	Review Tahoe Bike/Ped Model to assess usage /Vehicle occupancy X trip length/AVO	
	Kings Beach	Sidewalks	Construct new sidewalks in Kings Beach on Bear Street (SR 28 to Speckled Ave, one side) Dolly Varden Ave (SR 267 to Fox St, one side), Salmon Ave (Raccoon St to Fox St, one side)	Yes	Research pedestrian activity % increase generated by sidewalk improvements X existing crosswalk activity X avoided auto trip length (0.5 mi?)/AVO	
Parking Management	Tahoe City and Kings Beach Commercial Cores	Parking Pricing/Management	Implementation of summer and winter parking management programs, including residential parking programs and both capital and operating elements	Yes	Research mode shift associated with paid parking / AVO (TRPA surveys) X average trip length	
	Various Beach Parking Locations	Parking Pricing/Management	Implementation of summer beach parking management programs, including both capital and operating elements	Yes	Research mode shift associated with paid parking / AVO (TRPA surveys) X average trip length	
Transit Service	Tahoe Fee District	Transit Vehicles	Expand fleet by one battery electric bus, per TART Systems Plan	Yes	Ratio of existing TART daily ridership X % increase in fleet capacity, factored by AVO and trip length	
	SR 89 & SR 267	Transit Signal Priority & Queue Jump Lanes	Includes TSP equipment and infrastructure along SR 89 and SR 267. Implement transit queue jump at various intersections, including: roadway widening/intersection, modify detection and signal hardware; consider controller upgrade, changeable message signs, bluetooth reader, CCTV, DSRC radio, wireless backhaul	Yes	Apply elasticity analysis (Kittelson procedure?) to travel time savings at specific queue jump locations	Need to define locations. VMT benefits without transit service expansion would be very limited. Expanded VMT benefits would be a combination of capital improvement (in CIP) and expansion of transit services. Allocate % to CIP element based on ratio of annualized capital vs annual operating cost?
	Kings Beach	Transit/Micromobility Hub	Site for transit and micromobility connections, kiosk with information, parking enforcement staff, etc.	Yes	Update research on ridership benefit of transit hubs (5%?), factored by AVO and trip length	
	On Demand Micro Transit	Shuttle Purchases	Includes purchases of transit vehicles and other capital needed to implement on-demand micro transit in the Tahoe Basin. Includes four service areas, as identified in the RTTP.	Yes	Evaluate potential peak summer daily ridership X mode shift X avg trip length / AVO	VMT benefits without transit service expansion would be very limited. Expanded VMT benefits would be a combination of capital improvement (in CIP) and expansion of transit services. Allocate % to CIP element based on ratio of annualized capital vs annual operating cost?
	TART Mainline Expansion	Completion of TART Systems Plan	TART Systems Plan	No	Elasticity Analysis on Pre-COVID ridership, factored by trip length and avoided AVO	
	TART Mainline Expansion	Expansion Over TART Systems Plan	Such as 15-minute daytime frequency/30 minute evening frequency	No	Elasticity Analysis on Pre-COVID ridership, factored by trip length and avoided AVO	
	Free Fare for All TART Permanent Funding	All Services	All Services	No	Elasticity Analysis on Pre-COVID ridership, and review of ridership data from Dec 2019 to March 2020.	Current free-fare is a demonstration project without dedicated funding sources.
	Park N Ride Lots and Peak Visitor Shuttle Services	Lots in Truckee area and shuttle services for peak winter and summer visitor periods. Will assume parking management to encourage use.	Lots in Truckee area and shuttle services for peak winter and summer visitor periods. Will assume parking management to encourage use.	No	Transit ridership based on parking capacity and transit service capacity, factored by avg avoided trip length and AVO	Best analyzed as a package of lots with transit expansion program
	Park-n-Ride Service From Auburn Area	Bus service from Roseville/Auburn to Tahoe resort areas in peak winter and summer periods using existing commuter park-and-rides (2-4 round-trips per day)	Bus service from Roseville/Auburn to Tahoe resort areas in peak winter and summer periods using existing commuter park-and-rides (2-4 round-trips per day)	No	Ridership based on previous intercity Tahoe bus studies, factored by trip length and AVO	
	Kings Beach Mobility Hub	Hub for connections between transit routes and microtransit services, along with facility for micromobility (bike/scooter program), travel information and parking management staff	Hub for connections between transit routes and microtransit services, along with facility for micromobility (bike/scooter program), travel information and parking management staff	Yes	Research on % ridership increases generated by passenger facility improvements X KB ridership X trip length / AVO	
Bus Stop Improvements	To be defined by LSC and TART staff	To be defined by LSC and TART staff	No	TRCP and CAPCOA factors X pre-COVID ridership X trip length / AVO		
Travel Demand Management	Ride Share Program	Individual employers over X employees?	Individual employers over X employees?	No	CAPCOA Effectiveness Factor X Estimated Commuting by Impacted Employees	Mandatory?
	County Telecommute Policy	# Employees included	# Employees included	No	# Empl X Avg Trip Length / AVO	Will need # employees, work days per week, home zip code, work location
	Commute Reduction Coordinator	Individual employers over X employees?	Individual employers over X employees?	No	CAPCOA Effectiveness Factor X Estimated Commuting by Impacted Employees	Doublecounting with Ride Share Program?
	Mobility Option/Trip Planning Tool	Single app providing all trip options within the region	Single app providing all trip options within the region	No	RTP Effectiveness Factor	
	Micromobility (Bike/Scooter Program)	Summer programs in Tahoe City & Kings Beach	Summer programs in Tahoe City & Kings Beach	No	CAPCOA & TRPA RTP factors, review of available literature	

