

2018 Regional Transportation Improvement Program

For Butte County



Fiscal Years 2018/2019 – 2022/2023
(July 1, 2018 through June 30, 2023)

Prepared by:
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December 14, 2017

Ms. Susan Bransen, Executive Director
California Transportation Commission
Attention: Ms. Teresa Favila
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Ms. Bruce De Terra, Chief
Division of Transportation Programming
Attention: Mr. Rambabu Bavirisetty
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Subject: Butte County 2018 RTIP Submittal

Ms. Favila, Mr. Bavirisetty:

Enclosed for your consideration is the Butte County Association of Governments' (BCAG) 2018 Regional Transportation Improvement Program (RTIP). The BCAG Board of Directors adopted this RTIP at their December 14, 2017 Board meeting.

The attached 2018 RTIP summary reflects a local, regional, and state commitment to deliver practical and needed projects in Butte County which address safety and economic goods movement. Three State Route 70 projects are proposed in Butte County; Advanced Project Development Element in Yuba County and regional PPM funds.

The State Route 70 Corridor continues to be BCAG's top priority for the region for over 25 years. The urbanized area of Chico is the largest urbanized area in the state not yet served by a continuous four lane facility. In addition, the entire SR 70 Corridor between Oroville and Marysville has met Caltrans' "safety index" threshold to warrant SHOPP Safety funds to address the significant increase in fatalities along the corridor. As a result of this unfortunate "safety" threshold, BCAG and Caltrans District 3 are able to accelerate and address these fatalities with the infusion of SHOPP safety funds. It is in this context that BCAG is recommending a redistribution of existing STIP funds (RIP & IPP) from SR 70 Segment 1 (Ophir to Palermo Rd) project currently programmed in the 2016 STIP and apply the funding to both Segment 1 and Segment 2 (Palermo Rd to Cox Lane) to be fully funded, again, able to do so with the infusion of

SHOPP safety funds. This can be accomplished with the current programming of \$26.2 million with just \$1.4 million in new programming. SR 70 Segment 2 project was previously programmed and deleted in the 2016 STIP cycle as a result of insufficient funding in the STIP.

SR 70 Segment 3 is proposed to be funded with new programming capacity identified in the adopted Fund Estimate.

All three SR 70 projects can be delivered with the programming of SHOPP safety previously approved by the Commission and with ITIP and RTIP funding. Historically, BCAG has partnered with Caltrans on previous SR 70 projects at 50/50 participation.

BCAG is also recommending that Caltrans and the CTC support the programming of \$4 million of APDE and new shares to Caltrans District 03 for the Yuba County SR 70 Project "Segment 4" project. This project is being delivered by Caltrans District 3. The project has a SHOPP Safety commitment for 3 lanes. These supplemental funds would allow District 3 to prepare the environmental clearance for a 5-lane facility which has been the goal since 1988. BCAG's 2018 RTIP Summarized as follows:

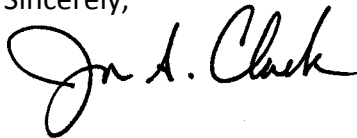
BCAG 2018 RTIP Summary

AGENCY	RIP PROJECT RECOMMENDATIONS	FUNDING RECOMMENDATION RIP ONLY
Caltrans	SR 70 Passing Lanes – Segment 1	\$ 7,200,000
Caltrans	SR 70 Passing Lanes – Segment 2	\$ 6,600,000
Caltrans	SR 70 Passing Lanes – Segment 3	\$ 10,900,000
Caltrans	SR 70 Passing Lanes – Segments 4 & 5 APDE/RIP for PA&ED (Environmental)	\$ 4,000,000
BCAG	Planning Programming and Monitoring (PPM)	\$ 400,000
	TOTAL 2018 RTIP RECOMMENDATIONS	\$ 29,100,000

This document has been posted on BCAG's website at <http://www.bcag.org/Planning/RTIP/index.html> should additional copies be necessary. In addition, staff has emailed all RTIP electronic files including the Project Programming Request (PPR) data sheets to Caltrans HQ staff.

Should you have any questions, please do not hesitate to call me or Mr. Iván García of my staff at 530-809-4603. We look forward to a continued partnership with the Commission and Caltrans.

Sincerely,



Jon A. Clark
Executive Director

Attachments:

- (2) Butte County 2018 RTIP Documents – CTC
- (2) Butte County 2018 RTIP Documents – Office of STIP

Butte County 2018 RTIP Distribution:

- (2) Caltrans District 3, Mr. Amarjeet Benipal

2018 REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM (2018 RTIP)

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A. Overview and Schedule

Section 1. Executive Summary

The BCAG Board of Directors adopted the 2018 Regional Transportation Improvement Program (RTIP) at their December 14, 2017 Board meeting. This 2018 RTIP reflects a local, regional, and state commitment to deliver practical and needed projects in Butte County. Four State Route 70 projects are proposed, three in Butte County and one in Yuba County. PPM funds are also recommended for programming. The State Route 70 Corridor continues to be BCAG's top priority for the region for more than 20 years. The urbanized area of Chico is the largest urbanized area in the state not yet served by a continuous four lane facility. SR 70 "Segment 1" project is proposed to be reprogrammed as the result of the infusion of recent SHOPP safety funds to address immediate fatalities. SR 70 "Segment 2" was a previously deleted 2016 STIP project and is now being proposed to be funded with existing programming capacity. A new "Segment 3" is proposed to be funded with new programming shares. BCAG is also recommending the use of all APDE funds available and new RIP shares to be programmed for Caltrans SR 70 Projects in Yuba County. Lastly, BCAG is recommending the programming of PPM funds to support its planning and programming efforts. All projects are derived from and consistent with the region's long-range Regional Transportation Plan / Sustainable Communities Strategy. This document and supporting documentation has been posted on BCAG's website at <http://www.bcag.org/Planning/RTIP/index.html>.

Section 2. General Information

- **Regional Agency Name**
Butte County Association of Governments (BCAG)
- **Agency website links for Regional Transportation Improvement Program (RTIP) and Regional Transportation Plan (RTP).**

Regional Agency Website Link: <http://www.bcag.org>

RTIP document link: <http://www.bcag.org/Planning/RTIP/index.html>

RTP link: <http://www.bcag.org/Planning/RTP--SCS/index.html>

- **Regional Agency Executive Director/Chief Executive Officer Contact Information**

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- **RTIP Manager Staff Contact Information**

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Section 3. Background of Regional Transportation Improvement Program (RTIP)

A. What is the Regional Transportation Improvement Program?

The Regional Transportation Improvement Program (RTIP) is a program of highway, local road, transit and active transportation projects that a region plans to fund with State and Federal revenue programmed by the California Transportation Commission in the State Transportation Improvement Program (STIP). The RTIP is developed biennially by the regions and is due to the Commission by December 15 of every odd numbered year. The program of projects in the RTIP is a subset of projects in the Regional Transportation Plan (RTP), a federally mandated master transportation plan which guides a region's transportation investments over a 20 to 25-year period. The RTP is based on all reasonably anticipated funding, including federal, state and local sources. Updated every 4 to 5 years, the RTP is developed through an extensive public participation process in the region and reflects the unique mobility, sustainability, and air quality needs of each region.

B. Regional Agency's Historical and Current Approach to developing the RTIP

BCAG's historical approach in developing the RTIP dates back to 1988 when the CTC placed the SR 70 and 99 Corridor on their "special studies" list asking for a corridor study to be prepared to determine which of the two routes either SR 99 or SR 70 should be the focus for future highway investments to provide an expressway to connect California's largest urbanized area of Chico to Sacramento via a continuous 4-lane facility. A "Major Investment Study" was completed in 1990 which identified the SR 70 Corridor as the preferred route. In addition, a "Marysville Bypass" study was completed in which approximately 16 alternatives were looked at and variations between them. The end result suggested the existing SR 70 between the Oroville and Marysville was the preferred route. Due to the magnitude of costs associated, BCAG has since worked with Caltrans on programming STIP funds along this corridor as financially able to. In addition, BCAG prepares a comprehensive, long-term Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS). These planning documents take at least two years to complete. The SR 70 Corridor been in BCAG's planning documents since 1990. This priority has never wavered. In the past if projects that supported the SR 70 Corridor were not ready or able to be programmed, BCAG has programmed other state highway projects including SR 99 and SR 149. However, because the SR 70 projects are

in a position to be completed and with the infusion of SHOPP safety funds in the 2018 STIP cycle, we have a unique opportunity to complete this vision. BCAG's approach has always been to work with Caltrans and the Commission to deliver good projects.

Section 4. Completion of Prior RTIP Projects (Required per Section 68)

BCAG has been developing the environmental document for two SR 70 Corridor Projects including Segment 1 (Ophir Rd to Palermo Rd) and Segment 2 (Palermo Rd. to Cox Lane). This work effort is funded with the use of previously secured federal congressional earmark funds outside of the STIP process. Even though Segment 2 was deleted from the 2016 STIP, BCAG and Caltrans District 03 has maintained steady progress to ensure the rest of the components would be ready for 2018 STIP programming. Segment 1 is currently programmed in the outer years of the 2016 STIP with a construction schedule of FY 19/20. It is the goal of this RTIP to obtain CTC approval for both Segment 1 and Segment 2 with a FY 19/20 construction target. These projects are underway and not completed.

The following table highlights current 2016 STIP projects in Butte County:

Project Name and Location	Description	Summary of Improvements/Benefits
SR 70 Passing Lanes Project – Ophir Rd to Palermo Rd (Segment 1)	On SR 70 from 0.1 mile south of Palermo Road to just north of Ophir Rd/Pacific Heights intersection. Widen from 2 lanes to 4. <u>Project is currently underway in the environmental component.</u> Target completion is July 2018.	The environmental component is currently underway. Construction is scheduled for FY 19/20. Benefits include increased roadway capacity, increased safety, reduced congestion, and improved travel flow. Bicycle safety will also be improved.
Planning, Programming & Monitoring	Planning, Programming and Monitoring activities to support BCAG's Overall Work Program and Budget related to the STIP	Benefits include the support of BCAG's planning, programming and monitoring activities required

Section 5. RTIP Outreach and Participation

RTIP Development and Approval Schedule

Action	Date
BCAG TAC meeting – Initiate Development of RTIP	August 3, 2017
BCAG, Caltrans, SACOG RTIP Consultation Meeting	August 9, 2017
CTC adopts Fund Estimate and Guidelines	August 16, 2017
BCAG RTIP Development Presented to Board	August 24, 2017
Caltrans identifies State Highway Needs	September 15, 2017
Caltrans submits draft ITIP	October 13, 2017
CTC ITIP Hearing, North	October 19, 2017

CTC ITIP Hearing, South	October 24, 2017
Draft RTIP Presented to BCAG Board	October 26, 2017
Public Workshops on Draft RTIP	December 11, 2017
BCAG Board Adoption of RTIP	December 14, 2017
Regions submit RTIP to CTC	December 15, 2017
Caltrans submits ITIP to CTC	December 15, 2017
CTC STIP Hearing, South	January 25, 2018
CTC STIP Hearing, North	February 1, 2018
CTC publishes staff recommendations	February 28, 2018
CTC Adopts 2018 STIP	March 21-22, 2018

A. Public Participation/Project Selection Process

In developing the RTIP, BCAG follows its adopted Public Participation Plan (PPP) process in developing its RTIP. This includes a formal public notice, advisory committee meetings and BCAG Board presentations. All of BCAG's meetings are open to the public and all relevant material is posted online at BCAG's RTIP webpage at: <http://www.bcag.org/Planning/RTIP/index.html>. In addition, BCAG held a public workshop to inform the public of the draft RTIP document, prior to adoption. BCAG also participated in consultation meetings with Caltrans District 3, Caltrans HQ, CTC staff and with the Sacramento Area Council of Governments (SACOG). Other public involvement included the participation of a public transportation forum which highlighted the SR 70 Corridor as a case study. A final draft RTIP was presented at the October Board meeting followed by a public workshop to give the public an opportunity to participate. A public hearing was held prior to adoption of the RTIP on December 14, 2017. The SR 70 Corridor has been BCAG's top regional priority to connect Chico to Sacramento with a continuous 4 lane facility for over 20 years and are included in the current and past long-range Regional Transportation Plan/Sustainable Communities Strategy (RTP/SCS) which has its own extensive public participation process. Projects are developed and selected in consultation with the BCAG Board, Caltrans and the public.

B. Consultation with Caltrans District (Required per Section 17)

Caltrans District: 03

BCAG consulted with Caltrans District 3, Caltrans HQ, CTC staff, Sacramento Area Council of Governments (SACOG) and Yuba County prior to and during the development of the RTIP. BCAG has a strong, positive working relationship with Caltrans. In addition, Caltrans staff regularly attends BCAG's Transportation Advisory Committee and Board of Directors meetings in which the RTIP is developed.

B. 2018 STIP Regional Funding Request

Section 6. 2018 STIP Regional Share and Request for Programming

A. 2018 Regional Fund Share Per 2018 STIP Fund Estimate

Butte County 2018 STIP Fund estimate is as follow:

Base Share through FY 2019-20: \$3,617,000
 Target through FY 2022-23 (Total Target): \$11,615,0000
 Estimated Share through FY 2023/24 (Maximum): \$15,262,000
 APDE Shares Available: \$1,788,000

The SR 70 Segment 1 project is currently programmed in the 2016 STIP for \$13.1 million. This RTIP is requesting the redistribution of these funds with new STIP shares.

B. Summary of Requested Programming

Project Name and Location	Project Description	Requested RIP Amount
SR 70 Passing Lane Project – Segment 1 (Butte County near Oroville). From Ophir Rd to Palermo Rd.	Widen from 2 lanes to 4 lanes. (Existing 2016 STIP Project).	\$ 7,200,000
SR 70 Passing Lane Project – Segment 2 (Butte County Near Oroville). From Palermo Rd to Cox Lane.	Widen from 2 lanes to 4 lanes. (Previously deleted 2016 STIP Project)	\$ 6,600,000
SR 70 Passing Lane Project – Segment 3 (Butte County). From E. Gridley Rd to Butte/Yuba County Line	Widen from 2 lanes to 4 lanes. (New Project)	\$ 10,900,000
SR 70 Passing Lane Project – Segments 4&5 Yuba County. From Laurellen Rd to Yuba/Butte County Line.	Environmental Component Only to study. (New Project)	\$ 4,000,000
Planning Programming and Monitoring	PPP activities	\$ 400,000
	TOTAL	\$29,100,000

Section 7. Overview of Other Funding Included With Delivery of Regional Improvement Program (RIP) Projects

Provide narrative on other funding included with the delivery of projects included in your RTIP. Insert information in the table below.

BCAG’s strategy for the SR 70 Corridor of projects included in the 2018 RTIP is to leverage SHOPP safety funds and STIP funds to complete the widening from 2 lanes to 4 lanes. The entire SR 70 corridor between Oroville and Marysville has met Caltrans’ safety threshold. In addition, in the current 2016 STIP, BCAG has SR 70 Segment 1 programmed for \$13.1 million. Because of the new infusion of SHOPP safety funds on Segment 1, BCAG is proposing to re-program those funds to Segments 1,2 & 3 to complete the corridor in Butte County to a 4-lane facility.

Proposed 2018 RTIP	Total RTIP	Other Funding (\$ 1,000s)					Total Project Cost
		ITIP	RSTP/ CMAQ	Fund Source 1	Fund Source 2	Fund Source 3	
SR 70 Passing Lane. Segment 1 – Ophir Rd to Palermo Rd.	7,200	7,200		34,000 SHOPP	1500 Demo Prior		49,900
SR 70 Passing Lane. Segment 2 – Palermo Rd to Cox Lane	6,600	6,600		29,670 SHOPP	825 Demo Prior		43,695
SR 70 Passing Lane. Segment 3 – E. Gridley Rd. to Butte/Yuba County Line	10,900	10,900		35,928 SHOPP			57,728
SR 70 Passing Lane Project. Segments 4&5 – PA&ED Only in Yuba County from Laurellen Rd to Yuba/Butte County Line	4,000						4,000
Planning, Programming & Monitoring (PPM)	400						400
							-
							-
							-
Totals	29,100	24,700	-	99,598	2,325	-	155,723

Notes: BCAG’s APDE funds are requested to be applied to the \$4 million for the SR 70 Project in Yuba County for the environmental component.

Section 8. Interregional Transportation Improvement Program (ITIP) Funding

The purpose of the Interregional Transportation Improvement Program (ITIP) is to improve interregional mobility for people and goods in the State of California. As an interregional program, the ITIP is focused on increasing the throughput for highway and rail corridors of strategic importance outside the urbanized areas of the state. A sound transportation network between and connecting urbanized areas ports and borders is vital to the state's economic vitality. The ITIP is prepared in accordance with Government Code Section 14526, Streets and Highways Code Section 164 and the STIP Guidelines. The ITIP is a five-year program managed by Caltrans and funded with 25% of new STIP revenues in each cycle. Developed in cooperation with regional transportation planning agencies to ensure an integrated transportation program, the ITIP promotes the goal of improving interregional mobility and connectivity across California.

BCAG is requesting a total of \$24.7 million in ITIP funds for three SR 70 Projects, Segments 1, 2 & 3. The requested ITIP funds represent a traditional 50/50 participation funding split between BCAG and Caltrans. All three projects have also been recommended in Caltrans' ITIP with the same funding levels and schedule included in this RTIP. This RTIP is consistent with ITIP.

Section 9. Projects Planned Within the Corridor (Required per Section 20e)

Provide a description of the project's impact on other projects planned or underway within the corridor as required per Section 20 of the STIP Guidelines.

The 2018 RTIP represents a corridor list of projects along SR 70 in south Butte County. Each project is significant to the other being completed and work towards completing a vision directed by the CTC in 1988. The vision identified was to connect California's urbanized areas to the state's 4-lane highway or freeway system. In 2017, there have been 13 fatalities alone on SR 70 in Butte County. SR 70 between Oroville and Marysville represents the remaining sections of highway between Chico and Sacramento that is not a minimum 4 lane highway. With the recent infusion of SHOPP safety, BCAG and Caltrans District 3 by the ITIP have proposed the completion of SR 70 to 4 lanes. Therefore, the impact of one project to the other is significant due to the severity of fatalities along the corridor.

C. Relationship of RTIP to RTP/SCS/APS and Benefits of RTIP

Section 10. Regional Level Performance Evaluation (per Section 19A of the guidelines)

Provide an evaluation of system performance and how your RTIP furthers the goals of the region's RTP, and if applicable, your Sustainable Communities Strategy as required per Section 19A of the STIP Guidelines. Each region that is a Metropolitan Planning Organization (MPO) or within an MPO shall include an evaluation of overall (RTP level) performance using, as a baseline, the region's existing monitored data. To the extent relevant data and tools area available, the performance measures listed in Table B1 below may be reported.

Regions outside a MPO shall include any of the measures listed in Table B1 (below) that the region currently monitors. A region outside a MPO (or a small MPO) may request, and Caltrans shall provide, data on these measures relative to the state transportation system in that region.

As an alternative, a region outside a MPO (or a small MPO) may use the Performance Monitoring Indicators identified in the Rural Counties Task Force's Rural and Small Urban Transportation Planning study dated June 3, 2015. These include: Total Accident Cost, Total Transit Operating Cost per Revenue Mile, Total Distressed Lane Miles, and Land Use Efficiency (total developed land in acres per population).

The evaluation of overall performance shall include a qualitative or quantitative assessment of how effective the RTIP or the ITIP is in addressing or achieving the goals, objectives and standards which correspond to the relevant horizon years within the region's RTP or Caltrans ITSP that covers the 5-year STIP period. Caltrans' evaluation of the ITIP shall also address ITIP consistency with the RTPs.

In addition, each region with an adopted Sustainable Communities Strategy (SCS) or Alternate Planning Scenario (APS) shall include a discussion of how the RTIP relates to its SCS or APS. This will include a quantitative or qualitative assessment of how the RTIP will facilitate implementation of the SCS or APS and also identify any challenges the region is facing in implementing its SCS or APS. In a region served by a multi-county transportation planning organization, the report shall address the portion of the SCS or APS relevant to that region. As part of this discussion, each region shall identify any proposed or current STIP projects that are exempt from SB 375.

BCAG's 2018 RTIP list of projects is directly derived from the adopted 2016 Regional Transportation Plan / Sustainable Communities Strategy (RTP/SCS). The RTP/SCS is financially constrained with a regional transportation network which services the transportation needs of the region by investing in highways, local streets and roads, transit, and non-motorized transportation. The overall performance of the 2018 RTIP works towards achieving the goals and objectives of the adopted long-range RTP/SCS.

A. Regional Level Performance Indicators and Measures (per Appendix B of the STIP Guidelines).

Performance Measures

Factor	Measure	Current Performance	Projected Impact of Constrained Plan	Data Source*
		Base Year (2014)	Year 2040	
Safety and Public Health	Fatalities per Vehicle Miles Traveled (VMT)	1 per 204,000 VMT	decrease	SWITRS / TDF Model
	Fatalities per Passenger Mile by Transit Mode Share	0 per 8.5 million Passenger Miles	maintain	SWITRS / NTD
	Percentage of Trips by Pedestrian and Bicycle Mode Share	Bike 2.13%	Bike 2.93%	TDF Model
		Ped 5.63%	Ped 7.76%	
Mobility and Accessibility	Average Peak Period Travel Time (minutes)	12.87	14.43	TDF Model
	Percentage of Housing and Jobs within 2 miles of State Highway	82% Housing and 94% Jobs	83% Housing and 94% Jobs	LU Model / GIS
	Percentage of Population within 1/2 mile of Transit Route	74%	66%	LU Model / GIS
Reliability	Percentage of Congested Highway VMT	0%	19%	TDF Model
Productivity	Average Peak Period Vehicle Trips	AM 94,038	AM 135,219	TDF Model
		PM 152,007	PM 217,882	
	Transit Passenger Trips per Vehicle Hour (Fixed Route)	19.2	21.8	NTD / TNMP

Performance Measures (Cont.)

Factor	Measure	Current Performance	Projected Impact of Constrained Plan	Data Source*
		Base Year (2014)	Year 2040	
System Preservation	Percentage of Distressed Lane Miles – State Highways (District 3)	10%	N/A	Caltrans Pave
	Percentage of Distressed Lane Miles – Local Streets and Roads	66%	N/A	Caltrans SR
	Percentage of Highway Bridge Lane Miles in need of Replacement or Rehabilitation ⁴	46%	N/A	HBP
	Percentage of Transit Assets exceeding FTA “Useful Life”	22%	0%	B-Line
Environmental Stewardship	Air Quality Conformity (non-attainment pollutants)	See Appendix 1	See Appendix 1	Air Quality Conformity Determination
	Per Capita Vehicle Miles of Travel ²	22.1	21.5	TDF Model
	Per Capita Acres of Developed Land	0.32	0.29	LU Model / GIS
	Acres of Important Farmland Avoided ⁵	236,386	230,760	LU Model / GIS
	Percentage of Development Occurring within Butte Regional Conservation Plan - Urban Permit Areas	70% Housing and 86% Jobs	75% Housing and 87% Jobs	LU Model / GIS
Social Equity	Percentage of Higher Density Low Income Housing ¹ within 1/4 mile of Transit Route	88%	75%	LU Model / GIS
	Percentage of Higher Density Low Income Housing ¹	26%	27%	LU Model / GIS
	Percentage of Minority Area ³ Population within 1/4 mile of Transit Route	100%	100%	LU Model / GIS

Footnotes:

¹ multi-family housing is used in determining percentage of higher density low income housing

² VMT includes all trips within county from all vehicle types

³ Minority Areas are defined as 2010 Census Block Groups where 40 percent or more of the population is Asian Pacific Islander, African American, Hispanic, Native American or other Non-White ethnic group, based on 2010 Census data

⁴ Highway Bridge Lane Miles with a Sufficiency Rating (SR) of 80 or below

⁵ Important Farmland includes farmlands classified as Prime, Unique, and of Statewide Importance by the California Department of Conservation (2012).

Data Source

SWITRS - California Highway Patrol Statewide Integrated Traffic Records System

TDF Model - BCAG's Regional Transportation Model

LU Model - BCAG's Regional Land Use Allocation Model

B-Line - Butte Regional Transit

TNMP – BCAG's Transit & Non-Motorized Plan

GIS - BCAG's Regional Geographical Information System

HBP - Caltrans Local Highway Bridge Program – Local Agency Bridge List (2014)

NTD – National Transit Database (2013)

Caltrans SR - California Statewide Local Streets and Roads Needs Assessment (2014)

Caltrans Pave - Caltrans 2013 State of the Pavement Report

Reasons for Using Selected Measures

Safety/Health - The safety of the regional transportation system is a key measure used to evaluate fatalities, injury, and property loss of system users. Given the available datasets at the time of preparing the 2016 RTP/SCS, these indicators allow for an accurate measure of safety and for motorized vehicles, transit, pedestrian, and bike. Health is also evaluated by measuring mode share for bike and pedestrian usage.

Mobility/Accessibility - Mobility refers to the ease or difficulty of traveling from an origin to a destination. Accessibility is defined as the opportunity and ease of reaching desired locations. As mobility increases, accessibility tends to improve. Given the available datasets at the time of preparing the 2016 RTP/SCS, these indicators allow for an accurate measure of mobility and accessibility utilizing travel times and accessibility to the state highway system and transit.

Reliability – Reliability refers to the consistency or dependability of travel times and is a measure that compares expectations with experience. Given the available datasets at the time of preparing the 2016 RTP/SCS, this indicator allows for an accurate measure of reliability of motorized vehicle travel utilizing congested VMT. Congested VMT has been determined as all VMT which equals or exceeds a volume/capacity ratio of 1.

Productivity - Productivity is defined as the utilization of transportation system capacity. For roadways, capacity is defined as the maximum number of vehicles that a roadway can accommodate. Given the available datasets at the time of preparing the 2016 RTP/SCS, these indicators allow for an accurate measure of productivity of motorized vehicle travel utilizing peak period vehicle trips and transit utilizing passengers per vehicle revenue mile.

System Preservation - System preservation refers to maintaining the roadway network at a desired or agreed upon level. Given the available datasets at the time of preparing the 2016 RTP/SCS, this indicator allows for an accurate measure of system preservation by determining the extent of currently distressed lane miles maintained by each local jurisdiction.

Environmental Stewardship – Environmental stewardship strives to protect and enhance the built and natural environments of the region. Given the available datasets at the time of preparing the 2016 RTP/SCS, these indicators allow for an accurate measure of environmental

stewardship of as they relate to vehicle travel, habitat conservation, air quality, prime farmland avoidance, and the development of land.

Social Equity – Social equity is the equitable distribution of the benefits and burdens of the plan on the economically and socially disadvantaged. Given the available datasets at the time of preparing the 2016 RTP/SCS, these indicators allow for an accurate measure of social equity and the relationship of low income housing and minority areas and proximity to transit.

Section 11. Regional and Statewide Benefits of RTIP

Provide qualitative narrative on the Regional and Statewide benefits of RTIP in text field below.

The 2018 RTIP recommendations reflect a continued priority for the completion of widening the State Route 70 Corridor with the goal of connecting Chico to Sacramento with a continuous 4-lane highway. With the infusion of recent Caltrans State Highway Operations and Protection Program (SHOPP) Safety funds on SR 70, BCAG now has the ability to leverage its RIP funds to complete the remaining segments in Butte County to 4 lanes. The 2018 RTIP identifies over \$155 million in highway investments of which \$99.5 million are SHOPP Safety funds.

The vision defined in 1988 was to connect California's largest urbanized area of Chico not yet served by a continuous 4-lane highway to Sacramento. Since then, numerous studies, plans and projects have been completed along the corridor. With 13 fatalities in 2017 alone, safety warrants have been met on SR 70 between Oroville and Marysville which now requires Caltrans to address safety as a top priority in the SHOPP program. However, SHOPP Safety will only construct 3 lanes (1 lane per direction with a center turn lane) whereas the goal for corridor has been to construct a continuous 4-lane highway to Chico. The proposed 2018 Butte County RTIP and the draft ITIP leverages the use of SHOPP safety funds to work towards the completion of the original vision of 4 lanes.

The 2018 RTIP has identified a total of 5 projects, 4 of which are on State Route 70 Corridor. The regional and statewide benefits of BCAG's RTIP are significant. The SR 70 projects address significant safety concerns as well as economic benefits for the region. All projects are specifically identified in the current adopted Regional Transportation Plan / Sustainable Communities Strategy and have demonstrated regional air quality conformity.

As a rural agricultural county with rural two-lane highways, expanding the restricted two-lane highway system has been the top priority. The unquantifiable benefits include the region's ability to attempt to stimulate growth and bring jobs to an economically distressed region. Attracting businesses to the South Oroville area of Butte County has been a challenge as a result of inadequate basic infrastructure. The area is also subject to fog during the winter months which make head-on collisions a significant concern. During the agricultural harvest season, Butte County highways experience significantly higher truck traffic with increased safety concerns. Therefore, expanding the SR 70 Corridor with both "Segment 1" and "Segment 2" projects is significant to those commuters who use the facility, including transit and those travelling through the region. In addition, during harvest season, it is not uncommon to see people walk and bike along the highway. With the improved shoulder width of the highway

projects, indirect benefits will result in a safer passage for those individuals required to walk or bike along the area.

The specific list of projects completes the use of RIP and IIP funds on the SR 70 Corridor and provide for a continuous 4-lane highway from Chico to the Butte/Yuba County line. In addition, BCAG has recommended the use of \$4million of RIP funds to expand the scope of the environmental component on SR 70 in Yuba County which would address the remaining gap between Marysville and Oroville that would need to be elevated to a 4-lane highway.

The benefits quantified in the RTIP are the result of extensive regional traffic modeling conducted as part of the current Regional Transportation Plan/Sustainable Communities Strategy process for Butte County. These same measures are being presented to ensure consistency between the long-range plan (RTP/SCS) and the short-range program (RTIP/STIP).

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D. Performance and Effectiveness of RTIP

Section 12. Evaluation of Cost Effectiveness of RTIP (Required per Section 19)

Per Section 19B and Appendix B of the STIP Guidelines, regions shall, if appropriate and to the extent necessary data and tools are available, use the performance measures in Table B2 or B2a below to evaluate cost-effectiveness of projects proposed in the STIP on a regional level.

Table B2			
Evaluation – Cost-Effectiveness Indicators and Measures			
Goal	Indicator/Measure (per thousand dollar invested)	Current Level of Performance (Baseline)	Projected Performance Improvement (indicate timeframe)
Congestion Reduction	Reduce Vehicle Miles Traveled (VMT) per capita	22.1 (2014)	19% (2040)
	Reduce Percent of congested VMT (at or below 35 mph)	0% (2014) Highway	29% (2040) Highway
	Change in commute mode share (travel to work or school)	Bike: 2.13% Ped: 5.63%	Bike: 2.93% (2040) Ped: 7.76% (2040)
Infrastructure Condition	Reduce percent of distressed state highway lane-miles	State Miles: 10% Local Miles: 66% Bridge: 46% Need/Replacement	State: N/A (2040) Local: N/A Bridge: N/A Need/Replacement
	Improve Pavement Condition Index (local streets and roads)		
	Reduce percent of highway bridge deck area in Poor Condition		
	Reduce percent of transit assets that have surpassed the FTA useful life period	22%	0 (2040)
System Reliability	Reduce Highway Buffer Index (the time cushion added to the average commute travel times to ensure on-time arrival).		
	Improve accessibility and on-time performance for rail and transit		
Safety	Reduce fatalities and serious injuries per capita		
	Reduce fatalities and serious injuries per VMT	1 per 204,000 (Fatalities)	Reduced (2040) (Fatalities)
Economic Vitality	Increase percent of housing and jobs within 0.5 miles* of transit stops with frequent transit service	82% Housing 94% Jobs *within 2 miles of transit	83% Housing 94% Jobs *within 2 miles of transit
	Reduce mean commute travel time (to work or school)	12.87 minutes	14.43 minutes (2040)
	Increase farebox recovery ratio		
Environmental Sustainability	Change in acres of agricultural land	236,386	230,760
	CO ₂ emissions reduction per capita		

Table B2(a)			
Evaluation – Rural Specific Cost-Effectiveness Indicators and Measures			
Goal	Indicator/Measure	Current System Performance (Baseline)	Projected Performance (indicate timeframe)
Congestion Reduction	Change in VMT per capita, area, by facility ownership, and/or local vs tourist	22.1	21.5 (2040)
	Change in Peak Volume/Capacity Ratio or Thresholds (threshold volumes based on HCM 2010)		
	Change in Commute mode share (travel to work or school)		
Transit	Change in Total operating cost per revenue mile		
Infrastructure Condition	Change in Distressed lane-miles, total and percent, by jurisdiction	66% Local System	N/A (2040)
	Change in Pavement Condition Index (local streets and roads)		
Safety	Change in Total accident cost per capita and VMT		
Environmental Sustainability	Change in Land Use Efficiency (total developed land in acres per population)	0.32	0.29

Per Section 19C and Appendix B of the STIP Guidelines, regions may, if appropriate and to the extent necessary data and tools are available, use the benefits or performance improvements in Table B3 below to evaluate the proposed changes to the built environment.

Table B3			
Evaluation – Project Changes or Increased Capacity Benefits			
Project Type Or Mode	Changes to Built Environment	Indicator/Measure	Benefits or Performance Improvement at Project Completion
State Highway	New general purpose lane-miles		
	New HOV/HOT lane-miles		
	Lane-miles rehabilitated		
	New or upgrade bicycle lane/sidewalk miles		
	Operational improvements		
	New or reconstructed interchanges		
	New or reconstructed bridges		
Transit or Intercity Rail	Additional transit service miles		
	Additional transit vehicles		
	New rail track miles		
	Rail crossing improvements		
	Station improvements		
Local Streets and Roads	New lane-miles		
	Lane-miles rehabilitated		
	New or upgrade bicycle lane/sidewalk miles		
	Operational improvements		
	New or reconstructed bridges		

Section 13. Project Specific Evaluation (Required per Section 19D)

Each RTIP shall include a project specific benefit evaluation for each new project proposed that estimates its benefits to the regional system from changes to the built environment, including, but limited to the items listed on page 10 of the STIP Guidelines. A project level evaluation shall be submitted for projects for which construction is proposed if:

- The total amount of existing and proposed STIP for right-of-way and/or construction of the project is \$15 million or greater, or
- The total project cost is \$50 million or greater.

The project level benefit evaluation shall include a Caltrans generated benefit/cost estimate, including life cycle costs for projects proposed in the ITIP. For the RTIP, the regions may choose between the Caltrans estimate and their own estimate (explain why the Caltrans estimate was not used). The project level benefit evaluation must explain how the project is consistent with Executive Order B-30-15 (Climate Change).

The STIP Guidelines state that this evaluation should be included in the PPRs (Section 15 of the RTIP Template).

E. Detailed Project Information

Section 14. Overview of Projects Programmed with RIP Funding

Provide summary of projects programmed with RIP funding including maps in the text field below as required per Section 19 of the STIP Guidelines.

State Route 70 Corridor Vision

The vision defined in 1988 was to connect California's largest urbanized area of Chico not yet served by a continuous 4-lane highway to Sacramento. Since then, numerous studies, plans and projects have been completed along the corridor. Safety warrants have been met on SR 70 between Oroville and Marysville which now requires Caltrans to address safety as a top priority in the SHOPP program. However, SHOPP Safety will only construct 3 lanes (1 lane per direction with a center turn lane) whereas the goal for corridor has been to construct a continuous 4-lane highway to Chico. The following projects proposed in the 2018 Butte County RTIP works towards achieving the vision:

2018 Butte County RTIP Recommendations

State Route 70 (Segment 1) – From Ophir Rd / Pacific Heights Intersection to Palermo Rd. The scope of the project is to widen from 2 lanes to 4 lanes with a center turn lane and standard shoulders. BCAG is currently developing the environmental document utilizing SR 70 federal demonstration funds. The remaining components are recommended for programming for **\$7.2 million in RIP**, \$7.2 million in Caltrans' IIP and \$34 million in Caltrans SHOPP funds for the Design (PS&E), Right of Way and Construction for a total cost of \$49.9 million. Construction is recommended for the 2019/20 fiscal year.

State Route 70 (Segment 2) – From Palermo Rd to Cox Lane. The scope of the project is to widen from 2 to 4 lanes with a center turn lane and standard shoulders. This project would close the gap between Segment 1 to the north and the recently completed passing lanes on SR 70 near E. Gridley Road to the south. BCAG is currently developing the environmental document utilizing SR 70 federal demonstration funds. The remaining components are recommended for programming for **\$6.6 million in RIP**, \$6.6 million in Caltrans' IIP and \$29.67 million in Caltrans SHOPP funds for the Design (PS&E), Right of Way and Construction for a total cost of \$43.695 million. Construction is recommended for the 2020/21 fiscal year.

State Route 70 (Segment 3) – From south East Gridley Rd to .1 mile south of the Butte and Yuba County Line. The scope of the project is to widen from 2 to 4 lanes with a center turn lane. This project would complete the widening of SR 70 from 2 to 4 lanes in Butte County resulting in a continuous 4-lane highway from the Yuba/Butte County line to Chico. The RTIP recommends funding for all components (Environmental,

Design, Right-of-Way and Construction). A total of **\$10.9 million in RIP**, \$10.9 million in Caltrans' IIP and \$35.928 million in Caltrans SHOPP funds for a total cost of \$57.728 million. Construction is recommended for the 2020/21 fiscal year.

***SR 70 Segments 4 & 5 (Yuba County)**

SR 70 Segments 4 & 5 is a 9.3-mile section from near Laurellen Rd north of Marysville to the Yuba/Butte County line. Caltrans has secured \$114 million in SHOPP "Safety" funds to address highway collisions. This includes widening the roadway by adding a center turn lane and standard 8-foot shoulders. This does not add capacity to the highway.

With BCAG's last three Segments recommended for funding in the Draft ITIP by Caltrans and BCAG's RTIP, the remaining gap entails Yuba County's Segments 4 & 5 with an unfunded need to construct the additional lane needed to bring the facility to a 4-lane highway with a center turn lane and standard shoulders. Caltrans has requested \$2 million from BCAG and \$2 million from Yuba County/SACOG to increase the environmental scope for this project to include a 4-lane highway.

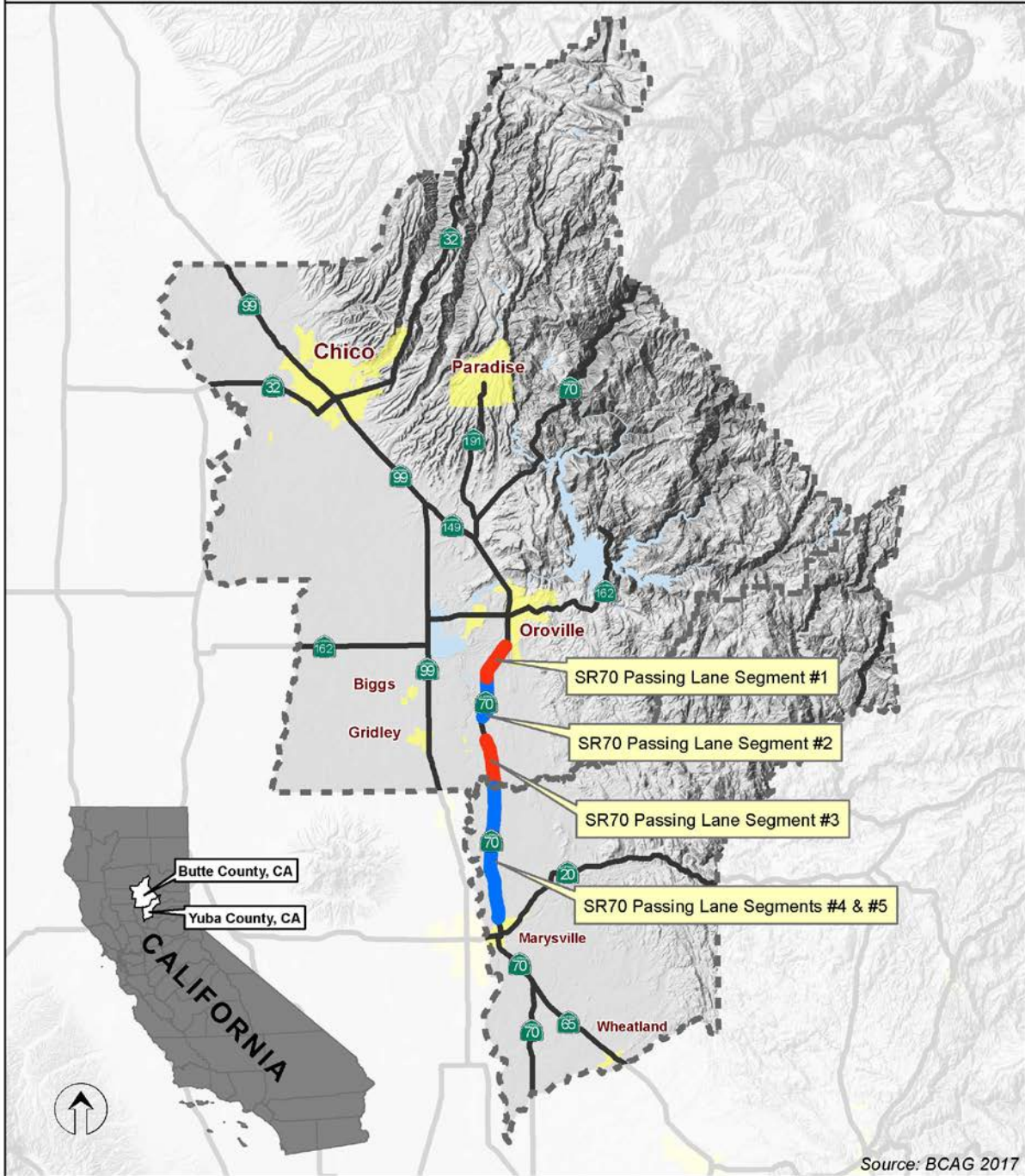
Since the August 2017 BCAG Board meeting, BCAG held meetings with Yuba County and SACOG in an effort to assist Caltrans in advocating for the funding needed to expand the environmental scope. Unfortunately, SACOG cannot assist at this time. SACOG has an extensive and complex programming process for their 22 cities and 6 county member agencies.

As a result of SACOG's inability to commit funds at this time, BCAG is recommending **\$4 million in RIP** to Segments 4&5 due to time constraints to complete the environmental component. However, a formal request to reimburse BCAG \$2 million in a future STIP cycle will be made to SACOG/Yuba County.

Planning Programming & Monitoring (PPM) – BCAG continues to use PPM funds towards allowable expenses and is recommending that the allowable 5% of **\$400,000 in RIP** be programmed in the 2018 STIP Cycle.

The map on the following page identifies each of the state highway projects recommended for 2018 STIP Programming.

2018 STIP Project Locations



F. Appendices

Section 15. Projects Programming Request Forms (Provide Cover Sheet) – Regional Agencies will add their PPRs in this section.

Section 16. Board Resolution or Documentation of 2018 RTIP Approval (Provide Cover Sheet) – Agencies will add their resolution or meeting minutes.

Section 17. Documentation on Coordination with Caltrans District (Optional) (With Cover Sheet)

Section 18. Detailed Project Programming Summary Table (Optional)

Section 19. Alternative Delivery Methods (Optional)

Section 20. Additional Appendices (Optional)

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