

*2023 Santa Cruz County
Regional Transportation Grants Program*

PROJECT APPLICATION PACKAGE FOR

**ROBERTSON ST AND SOQUEL DR
SIGNALIZATION PROJECT**

ROBERTSON ST AT SOQUEL DRIVE



APPLICATION CONTENTS

- A. Project Information
- B. Project Benefits/ Evaluation Criteria
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- E. Certification and Assurances

APPLICATION/PROJECT PROGRAMMING REQUEST

A. PROJECT INFORMATION						
Applicant/Implementing Agency			Public Agency Sponsor (if different)			
County of Santa Cruz			N/A			
Project Title						
Robertson St. & Soquel Dr. Signalization						
Brief Description/Scope of Work (attach extra pages to fully describe scope)						
Convert the existing All-Way stop controlled intersection at Soquel Dr. & Robertson St. to a signalized intersection. Revise existing geometry to the following: - Northbound (NB): 1 NBL/T/R - Southbound (SB): 1 SBL/T/R - Westbound (WB): 1 WBL and 1 WBT/R - Eastbound (EB): 1 EBL, 1 EBT, and 1 EBT/R						
Location, Limits, Length (attach map(s)/photos on separate tab)						
Intersection of Robertson St. & Soquel Dr.						
Roadway Functional Classification:		4-Minor Arterial				
Summary of Project Benefits, Purpose and Need						
(See Responses in Section B)						
Funds requested	\$1,595,536	Total Project Cost	\$1,802,254	Estimated # of Daily Users	21,136	
Are you able/willing to receive federal funds?		No				
Was project previously programmed for funds by RTC?		Yes	RTIP ID	CO-P107		
Project Cost by Mode (list approximate percentage of total project costs)						
Mode			% of Total Cost			
Pavement Preservation (rehab, overlay, etc.)						
Road-Auto serving (not rehab)			100%			
Bicycle						
Pedestrian						
Transit						
Transportation System Management (TSM)						
Transportation Demand Management (TDM)						
Other:						
Total			100%			
Priority	Project is priority #		1	of	8	applications submitted
Contact Name		Phone		E-mail Address		
Russell Chen		831.454.2149		russell.chen@santacruzcountyca.gov		

B. PROJECT BENEFITS/ EVALUATION CRITERIA

Information in this section will be used to evaluate projects. The RTC is required to consider how well projects advance regional, state and

Project Title:		Robertson St. & Soquel Dr. Signalization
Generally, what are the benefits of this project?		
<p>The intersection of Robertson Street & Soquel Drive is currently a multi-lane all-way stop controlled intersection which causes major congestion along the Soquel Drive corridor. Soquel Drive is a busy roadway with over 16,000 vehicles traveling on a daily basis at this section. Robertson Street is a 2-lane major collector that has approximately 3,000 average daily vehicular trips. The surrounding land uses at this intersection include primarily residential neighborhoods, downtown Soquel, nearby Soquel High School, Soquel Elementary School, and Main Street Elementary School. The installation of a traffic signal will be an essential upgrade to this section of the corridor to allow continuous movement of traffic during the AM and PM commute hours. Additionally, with 30 pedestrians and 20 bicycles crossing during the AM peak hour and 44 pedestrians and 16 bicycles crossing during the PM peak hour, the installation of traffic signal will provide a safer crossing option for pedestrians and less disruptive for traffic. As part of a separate project, the County of Santa Cruz is also installing Adaptive Traffic Signal System along with installation of buffered bike lanes along Soquel Drive, and new traffic signal at Robertson Avenue will be an essential piece of puzzle to complete the corridorwide improvements, and provide better service to traveling public.</p>		
Benefit Category (See Attachment 2 of Call for Projects for additional information and sample supporting data)		How does this project address any of the following? Projects are not expected to address all of these; if not applicable or not a primary purpose, write "N/A"
1	Safety and Collisions (reduce fatal or injury collisions)	<p>According to the Transportation Information Mapping System (TIMS) 15 collisions have occurred at this intersection in 5 year period (2017-2022). The following summarizes the data:</p> <ul style="list-style-type: none"> - 33% of crashes are broadsides - 3 pedestrians and 2 bicycles were reported to be involved in a crash <p>Signalization at this intersection will benefit all vehicles by providing a more efficient traffic control device to improve the flow of traffic which will potentially help reduce collisions. With the addition of a signal the pedestrians safety will also improve as pedestrians will now have pedestrian phases that stop traffic to allow pedestrians to cross the intersection.</p>
2	System Preservation / Infrastructure Condition (maintain existing transportation infrastructure, service, or program)	The project will maintain and improve the condition of current intersection by updating ADA curb ramps, improving street lighting, installing new traffic signal with Adaptive Traffic Signal System and Transit Signal Priority functions, improving sections of sidewalk. All these improvements will improve the comfort and safety of pedestrians, bicyclists, and drivers.
3	System Performance	Converting a stop controlled intersection to a traffic signal will significantly reduce stops and thus reducing fuel consumption, emissions, air pollution, and greenhouse gas emissions. The newly installed adaptive traffic signal system will work in tandem with nearby traffic signals at 41st Avenue and Daubenbiss, which will allow traffic to flow freely through downtown Soquel, in turn reducing travel delays for vehicular traffic and transit delays alike. It will also reduce the noise from constant breaking and starting, since this intersection is located on incline. This is especially important in the residential community.
3a	Reduce Emissions and/or Vehicle Miles Traveled	Emissions will be reduced with the addition of the project because a signal is a more efficient traffic control device when compared to an all-way stop. A signal will also help reduce the amount of idling and stoping that is currently experienced with the all-way stop controlled intersection.
3b	Improve travel times, travel time reliability; reduce delay	Current travel times between 41st Avenue and Porter Street (0.4 miles) is around 3-6 minutes during the PM peak hour. With the addition of the signal, travel times will be improved along this corridor as the signal will provide a more efficient and reliable intersection control.
3d	Improve freight or goods movement efficiency	N/A

Benefit Category (See Attachment 2 of Call for Projects for additional information and sample supporting data)	How does this project address any of the following? Projects are not expected to address all of these; if not applicable or not a primary purpose, write "N/A"
4 Increase Access for All (Expand multi-modal travel options/choices, especially to and within key destinations for all users)	Based on the 2020 counts, there are currently 30 pedestrians crossing and 20 bikes during the AM Peak hour, 79 pedestrians and 23 bikes during the afternoon School peak hour, and 24 pedestrians and 20 bikes during the PM peak hours. With the current multi-lane all-way stop controlled intersection, pedestrians have to determine an appropriate time to cross at the cross walks by waiting for vehicles to stop for them. Vehicles also have to wait for pedestrians to cross if they do it one by one, rather than in groups. This introduces significant delay to vehicular traffic. In addition, since Soquel Dr. is a 4-lane facility, pedestrian visibility is a concern for pedestrians either in the cross walk or waiting to cross the intersection. The signalized intersection provides pedestrian phasing which will allow for pedestrians to cross Soquel Drive and Robertson Street in groups and safer than what is present in existing conditions.
5 Public Health and Equity - Enhance health, safe access to key destination for transportation-disadvantaged populations	N/A
5a Improve public health or promote healthy communities, provide outreach to targeted users/health issues	N/A
5b Serve people who are transportation disadvantaged due to age, income, ability or language or other challenges	There are two Santa Cruz METRO transit lines, 71 and 69W, that run through this intersection. According to METRO the daily average ridership on both of these lines include 1,915 passengers. Per statement from METRO, their ridership largely consists of riders who are generally low-income, senior, and/or disabled, as well as students. A majority of METRO's riders on this corridor are transit dependent, with 65% earning less than \$24,000 (44% have an annual household income of below \$15,000), and nearly 60% report riding METRO five or more days per week (OTRS, 2019).
5c What percent of the population in the project area is minority or low-income?	According to the Climate and Economic Justice Screening Tool approximately 20-25% of the population are considered minority. The tracts surrounding the area are not identified as disadvantaged. Per the Disadvantaged Communities Designated by Justice40, the tract located just north of the project has been identified as disadvantaged.
5d Will the proposed project increase traffic in low-income and minority neighborhoods?	No this is an existing intersection and the project will only improve operations and traffic flow.
6 Climate Change and Resiliency (reduces greenhouse gas (GHG) emissions or vehicle miles traveled (VMT) per capita)	GHG will be reduced with the addition of the project because a signal is a more efficient traffic control device when compared to an all-way stop. A signal will also help reduce the amount of idling and stopping that is currently experienced with the all-way stop controlled intersection.

Benefit Category (See Attachment 2 of Call for Projects for additional information and sample supporting data)	How does this project address any of the following? Projects are not expected to address all of these; if not applicable or not a primary purpose, write "N/A"
Additional Considerations in Project Evaluation:	
A. RTP Consistency: If project is included in the 2045 Regional Transportation Plan (RTP) Project List, list RTP Project Number	CO-P58
B. Consistency with Complete Streets guidelines and policies: Describe how is project consistent with guidelines, integrates complete streets elements	The installation of the new traffic signal is a complete streets element due to improvement of the multi modal transportation by providing more convenient and safer pedestrian, bicycle, and vehicle access.
C. Consistency with other plans. What other plans is this project listed in, if any?	Soquel Village Plan (May 1990)
D. Public engagement: How was this project determined to be a priority? What outreach will occur during implementation?	<p>This project was first determined as a priority in the Soquel Village Plan. In the plan, the following was identified at this intersection:</p> <ul style="list-style-type: none"> - Pedestrian crossings are unsafe at this intersection due to speeding, inadequate sight distance, and excessive crossing distances. - PM peak hour volumes warranted a traffic signal at this location. <p>The project was then identified as an improvement in the <i>Santa Cruz Nissan Transportation Impact Analysis</i> prepared by Kimley-Horn dated March 15, 2017.</p>
E. Scale of Benefits - How many users are expected to use the facility, service or program? What is the source of this estimate?	<p>Traffic Counts were collected in October 2016 and February 2020. Ridership counts provided by Santa Cruz Metropolitan Transit District (METRO). Average ADT on Soquel Drive from 2020 24-hour counts was 16,075 vehicles per day.</p> <p>Average ADT on Robertson Street was derived from 2020 counts and is approximately 3,000 vehicles per day. There were 1,567 vehicles in the AM peak hour and 1,944 vehicles in the PM peak hour that entered this intersection.</p> <p>There were 30 pedestrians crossing and 20 bikes during the AM Peak hour, 79 pedestrians and 23 bikes during the afternoon School peak hour, and 24 pedestrians and 20 bikes during the PM peak hours.</p> <p>METRO transit line 71 and 69W runs through this intersection. According to METRO the daily average ridership on both of these lines includes 1,915 passengers.</p>
F. Potential Risks (and plans to mitigate them)	The County of Santa Cruz has a strong team that has a proven track record on successfully delivering capital projects. The County is currently working on a large Soquel Buffered Bike Lanes project which passes straight through this intersection, and some of the elements of that project will be pre-installed for future traffic signal at Robertson Street. To mitigate project delivery risk, County Public Works staff hired a consultant to prepare PS&E on this project and it is currently in 65% design stage. Additionally, since the County has already done work in this area, all utilities have been located and surveyed, all residents have been contacted regarding current and future work, the County even purchased additional R/W for future improvements.
F1 Funding - Is this project fully funded? What other funding has been secured for the project?	Design has been fully funded and is currently in 65% design.
	How will potential cost increases be funded?
	Local funds
	Will funds programmed by RTC be used to leverage other grants? If funds are not approved by the RTC during this competitive grant cycle, will other funding be at risk of being lost?
	No

Benefit Category (See Attachment 2 of Call for Projects for additional information and sample supporting data)	How does this project address any of the following? Projects are not expected to address all of these; if not applicable or not a primary purpose, write "N/A"
Is this project eligible for any other competitive grants?	While the project will reduce congestion and may be eligible for CMAQ funds, given that it is one location the County does not think it would be competitive for funding.
F2 Schedule: Describe any potential delays to schedule	The County has a consultant who is working on the design of the traffic signal at Robertson Street. The design is at 65% completion stage, and estimated to be fully designed by the time Grant Funds are approved. The only potential delay is for purchasing of all the equipment by the contractors, since typical wait times for traffic signal poles is 8 months. Overall, the construction of this signal should happen within 8 months time after receipt of the grant.
F3 Deliverability: Describe why your agency is capable of delivering this project. (sufficient staff, project management, performance in past)	Design phase of the project is currently funded and the County has progressed to a 65% design plan set. Our agency is capable of delivering this project based on past performance with the Soquel Drive Buffered Bike Lanes project, which spanned across 5.6 miles and included modifications to 21 traffic signals, and is currently under construction. Additionally, the County just recently completed the construction of the Aptos Village Improvements project, which included two brand new traffic signals, and modification to other 2 traffic signals. Both of these projects provided us with significant experience and we are more than capable to manage the construction of one traffic signal.
F4 Environmental: Describe any potential environmental issues, mitigations, risks associated with current and future environmental conditions (climate change, extreme weather, seismic)	Based on the previous experience with other projects, this project will be exempt from CEQA based on a statutory and categorical exemption as the project involves installation of traffic signal equipment with the purpose to relieve traffic congestion and repair and maintenance of existing public facilities for the purpose of improving public safety.
F5 Other: Describe any other potential risks and plans to mitigate risks	N/A

C1. CAPITAL PROJECTS - SCHEDULE, COST AND FUNDING SUMMARY

Non-infrastructure projects/programs - see NI tab

Project Title:	Robertson St. & Soquel Dr. Signalization		
Project Schedule/Milestone <i>(For TRANSIT vehicles- modify milestones accordingly or use Uniform Transit Application)</i>	Anticipated Date	Notes on schedule (flexibility, worst-case schedule)	
Project Cost Estimates/Scope Developed	-		
Begin Environmental (PA&ED) Phase	-		
Circulate Draft Env'l Document	Env'l Document	CEQA - CE	-
Draft Project Report	-		
End Environmental Phase (PA&ED Milestone)	-		
Begin Design (PS&E) Phase	-	Currently in 65% design for project	
End Design Phase (Ready to List for Advertisement Milestone)	06/01/24		
Begin Right of Way Phase	06/01/24		
End Right of Way Phase (Right of Way Certification Milestone)	08/31/24		
Begin Construction Phase (Contract Award Milestone)	01/01/25		
End Construction Phase (Construction Contract Acceptance Milestone)	06/30/26		
Begin Closeout Phase	06/30/26		
End Closeout Phase (Closeout Report)	12/31/26		

Project Cost Summary/Funding Information								
Total Project Cost (\$1,000s) - AUTO FILLS (do not enter numbers here)								
Component	Prior	21-22	22-23	23-24	24-25	25-26	26-27	Total
E&P (PA&ED)	0	0	55,399	0	0	0	0	55,399
PS&E	0	0	0	0	0	0	0	0
R/W SUP (CT)	0	0	66,479	0	0	0	0	66,479
CON SUP (CT)	0	0	0	476,691	0	0	0	476,691
R/W	0	0	0	0	0	0	0	0
CON	0	0	0	1,203,685	0	0	0	1,203,685
TOTAL	0	0	###	1,680,376	0	0	0	1,802,254

Fund No. 1:	NEW FUNDS REQUESTED FROM RTC								SCCRTC is expected to consider proposals at its December 7, 2023 meeting
	Fiscal Year								
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29	Total	Are there certain fund sources (e.g. federal, STIP)
E&P (PA&ED)			49,045					49,045	RSTPX/STBG funds preferred if available; however the County is open to all available funding
PS&E								0	
R/W SUP (CT)			58,854					58,854	
CON SUP (CT)				422,015				422,015	
R/W								0	
CON				1,065,622				1,065,622	
TOTAL	0	0	107,899	1,487,637	0	0	0	1,595,536	

Fund No. 2:	LOCAL FUNDS								Funding status	
	Fiscal Year								Are these funds secured?	Yes
Component	Prior	23-24	24-25	25-26	26-27	27-28	28-29	Total		
E&P (PA&ED)			6,354					6,354	If no, when will you know if funds are secured?	Local Roads Funds for match are available and will be allocated upon grant award
PS&E								0		
R/W SUP (CT)			7,625					7,625		
CON SUP (CT)				54,676				54,676		
R/W								0		
CON				138,063				138,063		
TOTAL	0	0	13,979	192,739	0	0	0	206,718		

C2. ENGINEERS ESTIMATE -

Job #	<p align="center">COUNTY OF SANTA CRUZ DEPARTMENT OF PUBLIC WORKS PRELIMINARY ESTIMATE OF COST</p>	INITIAL	DATE
		Made by KTD	4/6/18
Bid Opening	<p align="center">ROBERTSON STREET @ SOQUEL DRIVE SIGNAL PROJECT</p>	Revised by TN	4/11/18
		Revised by RC	1/27/23
LOCATION PROJECT: DESCRIPTION:	<p align="center">Install Traffic Signal, Traffic Control, Thermo Striping, Curb Ramps</p>	Revised by RC	9/11/23
		Checked by	
		App. By	

ITEM NO	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	AMOUNT
Section 10-2 Civil Improvements / Signage and Striping Improvements					
1	Mobilization	LS	1	\$130,000	\$130,000
2	Traffic Control	LS	1	\$100,000	\$100,000
3	Construction Staking	LS	1	\$20,000	\$20,000
4	Clearing & Grubbing	LS	1	\$25,000	\$25,000
5	Aggregate Base Class 2	TON	4	\$100	\$400
6	Asphalt Concrete (Type B, 1/2" Max., Med)	TON	5	\$600	\$3,000
7	Remove Existing Striping	LS	1	\$4,000	\$4,000
8	Remove Existing Sign & Post	EA	6	\$417	\$2,500
9	Remove Existing Pavement Legend	SF	125	\$16	\$2,000
10	Remove Existing Median	SF	50	\$100	\$5,000
11	(S) Thermoplastic Striping - Detail 22	LF	250	\$3	\$750
12	(S) Thermoplastic Striping - Detail 38	LF	170	\$3	\$510
13	(S) Thermoplastic Striping - 12" White	LF	50	\$5	\$250
14	(S) Pavement Legend	SF	220	\$10	\$2,200
15	Install New Sign & Post	EA	2	\$400	\$800
16	Curb Ramp Construction	EA	4	\$6,000	\$24,000
18	Slurry Seal (Type II)	SY	2400	\$8	\$19,200
SUBTOTAL					\$339,610

Section 10-3 Signal and Lighting					
	New LED Luminair (90W)	EA	4	\$2,000	\$8,000
	Type III-AF Service Equipment & Cabinet & BBS	EA	1	\$6,000	\$6,000
	Type III-AF Foundation	EA	1	\$2,000	\$2,000
	New Signal Controller & Cabinet	EA	1	\$50,000	\$50,000
	Controller Foundation	EA	1	\$2,500	\$2,500
	Numbering Electrical Equipment	LS	1	\$500	\$500
	Conductors & Conduit (Jack/Drill or Pavement Fill)	LF	310	\$105	\$32,550
	Video Detection System (all equipment)	LF	1	\$100,000	\$100,000
	3M Opticom Model 721 Emergency Vehicle Detector	EA	3	\$15,000	\$45,000
	Pedestrian Push Button Post	EA	1	\$1,000	\$1,000
	Pole (Type 17-2-100-15)	EA	1	\$10,000	\$10,000
	Pole (Type 17-3-100-20)	EA	1	\$10,000	\$10,000
	Pole (Type 19-4-100-25)	EA	1	\$12,000	\$12,000
	Pole (Type 29-5-100-50)	EA	1	\$20,000	\$20,000
	Pedestrian Push Button Post Foundation	EA	1	\$2,000	\$2,000
	Pole Foundation (Type 17-2-100)	EA	1	\$7,500	\$7,500
	Pole Foundation (Type 17-23100)	EA	1	\$7,500	\$7,500
	Pole Foundation (Type 19-4-100)	EA	1	\$10,000	\$10,000
	Pole Foundation (Type 29-5-100)	EA	1	\$15,000	\$15,000
	Pull Box #5	EA	5	\$2,000	\$10,000
	Pull Box #6	EA	1	\$2,000	\$2,000
	Ped Head Mounts	EA	4	\$1,000	\$4,000
	Ped Head (LED)	EA	6	\$2,000	\$12,000
	Pedestrian Push Button & Sign	EA	6	\$500	\$3,000
	12" Signal Head Backplates	EA	17	\$500	\$8,500
	Signal Head Mounts	EA	10	\$500	\$5,000
	Signal Heads 12"-3 Sec (LED)	EA	15	\$5,000	\$75,000
	Signal Heads 12"-4 Sec (LED)	EA	2	\$5,000	\$10,000
	Sign (Mast-arm Mounted)	EA	7	\$1,000	\$7,000
	PG&E Electrical Coordination	EA	1	\$15,000	\$15,000
	Concrete Work Pad	SF	120	\$25	\$3,000
18	Install Traffic Signal with Controller and Safety Lighting (Lump Sum)				\$496,050

FUNDING INFORMATION			TOTAL
Job Fund	Job No.	Appropriation	SUBTOTAL: \$835,660
			Contingencies 30%
			\$250,698
			SUBTOTAL (with Contingencies): \$1,086,358
			DSDC
			\$162,954
			R/W Engineering
			\$60,000
			Construction Inspection 20%
			\$217,272
			Geotechnical Engineering
			\$50,000
			Environmental Mitigation
			\$50,000
			SUBTOTAL: \$1,626,583
TOTAL FUNDING			PROJECT TOTAL: \$1,626,583
			Escalation 2.7%/year (2023-2026)
			\$175,671
			Total \$1,802,254

E. CERTIFICATION AND ASSURANCES

As authorized representative for my agency, I hereby certify that the information contained in this application, including required attachments, is accurate and hereby certify the following:

Project:	Robertson St. & Soquel Dr. Signalization	INITIALS
1	The project implementing agency possesses legal authority to nominate projects and to finance, acquire, construct, and/or implement the proposed project;	<i>am</i>
2	This project is among the highest priorities for this agency;	<i>am</i>
3	The proposed transportation investments have received the full review and vetting required by law;	<i>am</i>
4	Such investments are an appropriate use of taxpayer dollars. The agency shall adhere to principles and policies that ensure government oversight and management of the contracting process to ensure taxpayer funds are spent wisely; contracts are not wasteful, inefficient, or subject to misuse; unnecessary no-bid and cost-plus contracts are avoided; and contracts are awarded according to the best interests of California taxpayers;	<i>am</i>
5	The agency will maintain and operate the property acquired, developed, rehabilitated, or restored for the life of the resultant facility(ies) or activity. I understand that with the approval of the California Department of Transportation, the Administering Agency or its successors in interest in the property may transfer the responsibility to maintain and operate the property;	<i>am</i>
6	If these new funds are used to replace funds previously committed to this project, the agency will maintain its effort with regard to redirecting those funds to similar transportation projects;	<i>am</i>
7	The agency will give RTC and California Department of Transportation's representative access to and the right to examine all records, books, papers, or documents related to the project;	<i>am</i>
8	Work on the project shall commence within a reasonable time after receipt of notification that funds have been approved, allocated or obligated, as applicable, and that the project will be carried to completion with reasonable diligence;	<i>am</i>
9	The agency will comply where applicable with provisions of the California Environmental Quality Act, the National Environmental Policy Act, the Americans with Disabilities Act, the Secretary of the Interior's Standards and Guidelines for Archaeology and Historic Preservation, and any other federal, state, and/or local laws, rules and/or regulations;	<i>am</i>
10	The agency shall comply with all reporting requirements outlined by FHWA, FTA, RTC, Caltrans, the California Transportation Commission (CTC) or state statute, as applicable;	<i>am</i>
11	The agency will commit the funds necessary to ensure this project is fully funded.	<i>am</i>

Implementing Agency Representative:

Signed *am* Date 10/25/23
 Printed (Name and Title) Matt Machado, Deputy CAO/Director of Community Development and Infrastructure
 Implementing Agency County of Santa Cruz