



**FY 2018-2019 LCTOP
Allocation Request
Lead Agency Information**

Name:	Torrance City Bus (TCB)		
Address:	220 W. Carson St		
City, State Zip Code:	Torrance, CA 90501		
County:	Los Angeles	Regional Entity:	Los Angeles
Agency Website:	www.TCB.org		
Approved Title VI (Date)*:	8/26/2015		
Link to Agency's Approved Title VI Plan:	www.TCB.org/title_VI_Plan.html		

*Please provide a copy of your FTA/Caltrans Approval Letter as an attachment to your FY18-19 LCTOP Allocation Request.

Allocation Request Prepared by	
Name:	Brandon Walsh
Title:	Associate Transportation Planner
Phone #:	310-533-4396
E-mail:	bwalsh@tcb.org

Contact (if different then "Prepared by")	
Name:	Dylan McKay
Title:	Financial Officer
Phone #:	310-533-4397
E-mail:	bmckay@tcb.org

Authorized Agent	
Name:	Kelly Taylor
Title:	Executive Director
Phone #:	310-533-4399
E-mail:	ktaylor@tcb.org

Legislative District Numbers						
Assembly*:						
Senate*:						
Congressional*:						

*if you have more Districts please provide an attachment

Project Summary

Name: <i>No more than 180 characters.</i>	Increase frequency on Line 10					
Description (Short): <i>No more than 370 characters.</i>	Increase frequency on Line 10 along Crenshaw Blvd between Pacific Coast Hwy to Crenshaw LA Metro Station. This service enhancement would add two additional AM peak and two additional PM peak trips in each direction. AM peak is from 5:47 AM to 7:34 AM and 4:21 PM and 6:22 PM.					
Type:	Operations					
Sub-Type	New expanded/enhanced transit service					
Total Years of Rollover:	0		Remaining years of Rollover:	0		
Start date (anticipated):	8/1/2019		End date (anticipated):	7/31/2020		
General Area (City/County):	City of Torrance/ Los Angeles County					
Specific Area (Lat-Long of the project in decimal degrees separated by a comma "," (e.g., 34.413775, -119.848624). For multiple locations, list each separated by a semicolon ";")	List of Bus Stops with Lat-Long is located in Bus Stop tab					
Project Life - For capital projects, state the "Useful Life" of the project. For operation projects state the number of months service will be funded.						
Capital:			Operations:	12 months		
Funding:	99313:	\$38,201	99314:	\$181,039	Total:	\$219,240
Approved LONP:	No		LONP Approval date:			

**FY 2018-2019 LCTOP
Allocation Request
Funding Information**

LCTOP Allocation Year	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	Total
PUC 99313 Amount:		\$38,201					\$38,201
PUC 99314 Amount:		\$181,039					\$181,039
Total LCTOP Funds:	\$0	\$219,240	\$0	\$0	\$0	\$0	\$219,240
Other GGR Funds:							\$0
Other Funds:							\$0
Total Project Cost:	\$0	\$219,240	\$0	\$0	\$0	\$0	\$219,240

Lead Agency:	Torrance City Bus (TCB)	Amount:	PUC Funds Type:
Contact Person:	Dylan McKay		99313
Contact Phone #:	310-533-4397	\$181,039	99314
Contact E-mail:	bmckay@tcb.org		

Contributing Sponsor:	Los Angeles Council of Governments	Amount:	PUC Funds Type:
Contact Person:	Donna Martin	\$38,201	99313
Contact Phone #:	213-902-1000		99314
Contact E-mails:	Donna.Martin@LACOG.gov		

Contributing Sponsor:		Amount:	PUC Funds Type:
Contact Person:			99313
Contact Phone #:			99314
Contact E-mails:			

Contributing Sponsor:		Amount:	PUC Funds Type:
Contact Person:			99313
Contact Phone #:			99314
Contact E-mails:			

Contributing Sponsor:		Amount:	PUC Funds Type:
Contact Person:			99313
Contact Phone #:			99314
Contact E-mails:			

Contributing Sponsor:		Amount:	PUC Funds Type:
Contact Person:			99313
Contact Phone #:			99314
Contact E-mails:			

Total FY 18-19 LCTOP Funding	\$219,240
-------------------------------------	------------------

Supplanting Funds - Describe how the LCTOP funds will not supplant other funding sources.
Without this LCTOP funding TCB would be unable to increase this service.

Fully Funded Project - Provide a description of the status of all the funds to be used to completely fund this project.
LCTOP funds are the only funds to be used for this proposed project.

FY 2018-2019 LCTOP

Allocation Request

Funding Plan

Proposed Total Project Cost								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PS&E	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
R/W	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
CON	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Veh/Equip Purchase	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Operations/Other	\$0	\$219,240	\$0	\$0	\$0	\$0	\$0	\$219,240
TOTAL	\$0	\$219,240	\$0	\$0	\$0	\$0	\$0	\$219,240

Low Carbon Transit Operations Program (LCTOP)								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other		\$219,240						\$219,240
TOTAL	\$0	\$219,240	\$0	\$0	\$0	\$0	\$0	\$219,240

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0



**FY 2018-2019 LCTOP
Allocation Request
Funding Plan**

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

Funding Source:								
Component	Prior	FY 18-19	FY 19-20	FY 20-21	FY 21-22	FY 22-23	FY 23-24	Total
PA&ED								\$0
PS&E								\$0
R/W								\$0
CON								\$0
Veh/Equip Purchase								\$0
Operations/Other								\$0
TOTAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0

FY 2018-2019 LCTOP
Allocation Request
Project/Agency Information

Project Description - Describe the project using comprehensive overall project description regarding improvements to be made and/or increased level of service (include for operations projects number of trips, span, frequency improvements and number of days of operation; for capital projects include product specifications). *No more than 10 lines.*

The proposed project would increase frequency on Line 10 along Crenshaw Blvd between Pacific Coast Hwy to Crenshaw LA Metro Station. This service enhancement would add two additional AM peak and two additional PM peak trips in each direction and would operate Monday through Friday, 252 days in the first year. AM peak is from 5:47 AM to 7:34 AM and 4:21 PM and 6:22 PM. Line 10 currently operated on the proposed route providing all day service between Crenshaw Blvd between Pacific Coast Hwy to Crenshaw LA Metro Station, however many of the AM and PM peak trips are experiencing over crowding with passengers standing for much of the 9.5 mile trip.

Agency Service Area - Describe the project area including the city, town, community (rural, suburban, urban & demographics). *No more than 10 lines.*

The City of Torrance encompasses an area of approximately 21 square miles and has an estimated population of 146,115, which makes Torrance one of the top 10 most populated cities in Los Angeles County. Residents have a high median age of about 42 years, and over a third of the population are Asian Americans. Torrance has the second-highest population of Japanese Americans in the United States. Our population has a median income of \$75,549, and 46% of residents over age 25 have a bachelor's degree or higher. A third of households have children under the age of 18 living with them.

Agency Service - Describe the service you provide and how the project plays into your overall operations plan. *No more than 10 lines.*

Approximately 60% of our routes and service are outside of the City of Torrance proper, serving disadvantaged communities and cities with a high density of low-income residents. Our service operates from the South Bay to Downtown Los Angeles, and from Redondo Beach to Long Beach. We operate fixed route bus service on 11 lines, including a Rapid Bus Line and an Express Line. A copy of our system map, service area, and a map of the disadvantaged communities that we service is attached. We host El Camino Community College, the ITT Technical Institute of Torrance, and Westwood College of South Bay, while our buses also service Cal State Dominguez Hills. The Torrance Transit Park and Ride Regional Terminal is a seven acre facility currently being constructed and will serve as a multi-modal transportation hub in the South Bay region, connecting bus, car, bicycle and in the near future, light rail service (this facility is the future terminus of the Metro Green line Light Rail).

Agency Fare - Describe the fare structure for your system and how the project will affect that structure if at all.

We charge a base fare of \$1.00; we charge senior, disabled, and Medicare patrons \$0.25; we charge students \$0.50; children ride for free. Interagency transfers cost \$0.40. None of these fares will be affected by our project.

Project/Agency Information (continued)

Project Costs - Describe the assumptions and process for how the projects costs were developed. *No more than 10 lines.*

The proposed project used the following assumptions to develop a total project cost: 4 additional trips, each 1.5 hours long equals 6 additional revenue service hours per day, 252 days of service (in the first year) equals 1,512 additional revenue service hours for the first year. At a cost of \$145 per revenue service hour (system wide average cost) estimated total project cost is \$219,240

Project Planning - Explain the planning process this project went through, including any public outreach/input, or workshop

Increasing service on Route 10 is a core element of TCB Short-Range Transit Plan. This plan was presented before our city council and was open to public input and comment. TCB monitors and analyzes its service provision data on a continuous basis, and receives operational information from bus operators. Route service has shown consistently heavy ridership for many years. Public outreach was conducted in 2016 when this and other routes were modified, and two additional buses were added to the route. We have also recently conducted a comprehensive system analysis to obtain additional information from which to plan service changes and determine efficiencies; that analysis confirms the continued need for Route 10 expansion.

Environmental Justice - Explain how your agency designed the project to avoid substantial burden on *any* low income disadvantaged community.

The provision of additional buses on this heavily traveled transit corridor relieves overcrowding during peak commute periods, thus would not impose any substantial burden on any low income disadvantaged community.

**FY 2018-2019 LCTOP
Allocation Request
Project GHG Benefits**

Greenhouse Gas Reductions - Describe qualitatively how this project will reduce greenhouse gas emissions. For example, expanded/enhanced transit service will improve headways thus making transit a more convenient option of transportation thus increasing ridership, reducing Vehicle Miles Traveled (VMT) and reducing GHG.		
The expanded transit service will reduce VMT and greenhouse gas emissions by replacing auto trips with transit trips. Expansion to the service by 4 additional trips are estimated to added approximately 133 commuter bus riders per day to replace an average auto trip of 9 miles each direction		
Greenhouse Gas Reductions - Please provide quantitative information requested below and explanation/support for the data provided.		
	Value	Explanation
Year 1 (Yr1) - <i>First year of service, or year that capital improvements will be completed.</i>	2019	Service is to begin September 1, 2019, and this grant will pay to operate the service for one year
Year F (YrF) - <i>Final year that the service is funded or the final year of the capital improvements useful life.</i>	2020	The one year of operations would end August 31, 2020
Project Yr1 Ridership - <i>Estimated annual ridership contributed by the new service or capital improvement in Yr1.</i>	33,264	The current average riders per hour of service on Route 10 is 30 passengers per hour. Staff estimated the new service to have an average of 22 passengers in the first year 22 x 1512 hours of service = 33,264
Project F Yr. Ridership - <i>Estimated annual ridership contributed by the new service or capital improvement in YrF.</i>	33,264	The current average riders per hour of service on Route 10 is 30 passengers per hour. Staff estimated the new service to have an average of 22 passengers in the first year 22 x 1512 hours of service = 33,265
Adjustment (A) - <i>Adjustment factor to account for transit dependency. Default: 0.5 for local bus service and 0.83 for long distance commute service.</i>	0.50	Using the default for local bus service
Trip Length (L) - <i>Length (miles) of average auto trip reduced or average passenger trip length (miles).</i>	4.61	Per our February 2018 Ridcheck Plus Survey Summary, our average passenger trip length is 4.61 miles. The survey is attached, with the final average highlighted on page 4 of the survey results.
Project Useful Life	1	This is calculated based on the values above.
Total Project Ridership Increased	33,264	This is calculated based on the values above.
Total Project VMTs Reduced	76,674	This number is calculated based on the values above.
Estimated Total Project GHG (mtco2) Reduction:	16.42	This number is calculated based on the values from above and the QM-Tool tab.
LCTOP Emission Reductions /Total LCTOP Funds Requested	74.90349	This number is calculated based on the values from above and the QM-Tool tab.



**FY 2018-2019 LCTOP
Allocation Request
Project Benefits**

Job retention/creation Benefits

Primary Project Activity <i>(select from drop down)</i>	Operation of local transit service, including mixed mode
% of Project Budget Associate with Primary Activity	100.00%
Tertiary Project Activity <i>(select from drop down)</i>	
% of Project Budget Associate with Tertiary Activity	
Tertiary Project Activity <i>(select from drop down)</i>	
% of Project Budget Associate with Tertiary Activity	

Travel Cost Savings Benefits

	Value	Explanation
Standard Fare Cost for Project (\$/Trip)	\$1.00	A base fare of \$1
Reduced Fare Cost (\$/Trip)	\$0.00	N/A
Transit Facility Parking Cost (\$/Trip)	\$0.00	N/A
Avoided Parking Cost (\$/Trip)	\$5.00	The cost it would have been to pay for parking
Avoided Toll Cost (\$/Trip)	\$0.00	N/A

Transit Mode Share (increase mobility): Describe how this project will increase transit mode share (increase mobility).

The additional trips will increase mobility in communities along the route increasing the number of mass transit opportunities and residents abilities to travel throughout the region (as the route serves a Metro rail station and two airports). Staff estimated the new service to have an average of 22 passengers in the first year 22 x 1512 hours of service = 33265

Co-Benefits - Check all additional Benefits/Outcomes.

☐ Improved Safety

☐ Improved Public Health

☐ Reduced Operating/Maintenance Costs

☒ Increase System Reliability

☐ Other Benefits

☐ Coordination with Educational Institution

☐ College ☐ Grades K-12

☐ Promotes Active Transportation

☒ Promotes Integration w/ other modes

Co-Benefits - Describe benefits indicated above and other benefits not listed.

**FY 2018-2019 LCTOP
Allocation Request
Priority Populations Benefits**

Does your Service Area have a Disadvantaged Community? <i>(as defined by SB 535)</i>	Yes
Does the Project Benefit a Disadvantaged Community?	Yes
Does the Project Benefit a Low Income Community or a resident of a Low-Income Household?	Yes
Does the Project Benefit a Low Income Community or a resident of a Low-Income Household with in a 1/2 of a Disadvantaged Community?	Yes
Is the project a new or expanded transit service that connects with transit service serving a disadvantaged communities?	Yes
Is the project a transit fare subsidies or network and fare integration technology improvements, including, but not limited to, discounted or free student transit passes	No
Is the project a purchase of zero-emission transit buses and/or supporting infrastructure?	No

Identify the Project Census Tract(s) <i>(please use the 10-digit identification code) :</i>	603765091, 6037980005, 6037603702, 6037603704, 6037602507, 6037602506, 6037602509, 6037670003
---	---

Identify the approach your agency used to identify AB 1550 Community Need <i>(for more information please review AB 1550 Needs tab):</i>	D. Refer to the list of common needs for disadvantaged communities in CARB's Funding Guidelines Table 2-2 and select a project that addresses a listed need.
Identify Specific AB 1550 Group Common Needs <i>(if you select letter D. in question above):</i>	ECON 5 Reduce transportation costs (e.g., free or reduced cost transit passes) and improve access to public transportation (e.g., new services in under-served urban and rural communities).

Priority Populations Community Need: Describe, in detail the identified community need(s) and how the project meets the need(s), including the levels of community engagement.
TCB used a variety of approaches to determine community need including referring to the list of common needs for disadvantaged communities in the CARB's Funding Guidelines Table 2-2. Staff has worked with members of the Crenshaw Blvd. Community on many occasions including the public hearing held on Thursday, February 15, 2019 when the City Council voted to use LCTOP funds to increase service on Line 10.

Identify the Specific Priority Population Benefit:	A. Project provides improved transit or passenger rail service for stations or stops within a disadvantaged or low-income community (e.g., new transit lines, more frequent service, greater capacity on existing lines that are nearing capacity, improved reliability, improved accessibility, bus rapid transit service);
---	--

FY 2018-2019 LCTOP Allocation Request

DAC Benefit - Explain, in your own words, how the project will benefit Disadvantaged Community(ies) within your service area.

The improved service on Line 10 will increase Crenshaw Blvd. communities access to affordable, reliable and convenient mass transportation service both within Torrance and within the region. Line 10 benefits DAC by connecting low income residents to educational facilities, medical offices, major employment centers in the Greater South Los Angeles area and Downtown Los Angeles via light rail at the Metro Green Line Station.

Low-Income Community or Low-Income Household Benefit - Explain, in your own words, how the project will benefit Low-Income Community(ies) or Low-Income Households within the project area.

The improved service on Line 10 will increase Crenshaw Blvd. communities access to affordable, reliable and convenient mass transportation service both within Torrance and within the region. Line 10 benefits DAC by connecting low income residents to educational facilities, medical offices, major employment centers in the Greater South Los Angeles area and Downtown Los Angeles via light rail at the Metro Green Line Station.

Low-Income Community or Low-Income Household within 1/2 a mile of a Disadvantaged Community Benefit - Explain, in your own words, how the project will benefit Low-Income Community(ies) or Low-Income Households within the project area.

Amount funds to benefit a DAC: \$	175,392
Amount funds to benefit Low-Income Households & Residents: \$	21,924
Amount funds to benefit Low-Income Households or Resident within 1/2 mile of a DAC: \$	21,924



California Air Resources Board
Benefits Calculator Tool for the
Low Carbon Transit Operations Program
California Climate Investments

Note to applicants:

Inputs	Required	Description
SECTION 1: This section is used to determine the quantification method and emission factors to use to estimate emissions.		
Project Type	New expanded/enhanced transit service	
Quantification Method	New Service	Automated
Type of Region	Air Basin	Yes
Region	South Coast	Yes
Year 1 (Yr1)	2019	Yes
Year F (YrF)	2020	Yes
Quantification Period	1	Calculated
SECTION 2: This section is used to estimate the emission and cost reductions from displaced auto vehicle miles traveled (VMT).		
Service Type	Local/ Intercity Bus (Short Distances)	Yes
Yr1 Ridership	33,264	Yes
YrF Ridership	33,264	33,264
Adjustment Factor (A)	0.50	Yes
Length of Average Trip (L)	4.61	Yes
Passenger VMT Reductions	76,674	Calculated
GHG Emission Reductions	38	Calculated
SECTION 3: This section is used to estimate the net emission reductions from new service or from the purchase of new zero-emission/hybrid vehicle(s).		
Vehicle Type	Transit Bus	Yes
Engine Tier		No
Hybrid Vehicle	No	Yes
Fuel/Energy Type	CNG	Yes
Project Specific Emission Factor		Optional
Model Year	2016	Yes
Annual VMT	9,576	Yes
Annual Fuel/Energy (cubic feet)		No
GHG Emissions	22	Calculated

SECTION 4: This section is used to estimate the net emission reductions from vehicle replacement as a result of the proposed project.			
Additional GHG Reductions		Optional	Select Not Applicable unless an existing vehicle will be replaced.
Vehicle Type		No	Not applicable for this project type.
Engine Tier		No	Not applicable for this vehicle type.
Fuel/Energy Type		No	Not applicable for this project type.
Model Year		No	Not applicable for this project type.
Annual VMT		No	Not applicable for this project type.
Annual Fuel/Energy		No	Not applicable for this vehicle type.
GHG Reductions	Not Applicable	Calculated	Not applicable for this project type.
SECTION 5: This section is used to estimate the net emission reductions from fuel/energy reductions as a result of the proposed project.			
Additional GHG Reductions		Optional	Select Not Applicable unless additional fuel/energy savings may be realized.
Vehicle Type		No	Not applicable for this project type.
Engine Tier		No	Not applicable for this vehicle type.
Fuel/Energy Type		No	Not applicable for this project type.
Model Year		No	Not applicable for this project type.
Annual Fuel/Energy		No	Not applicable for this vehicle type.
GHG Reductions		Not Applicable	Calculated
SECTION 6: This section calculates the greenhouse gas (GHG) emission reductions achieved by the proposed project.			
Total Project GHG Reductions	16	Calculated	Total GHG emission reductions (MTCO ₂ e) from the project during the useful life.
LCTOP Project GHG Reductions	16	Calculated	The portion of GHG emission reductions attributable to funding from LCTOP; GHG emission reductions are prorated according to the level of program funding contributed from LCTOP and other CCI programs, as applicable.



California Air Resources Board
Benefits Calculator Tool for the
Low Carbon Transit Operations Program
California Climate Investments

Project Information		
	Project Name	Increase frequency on Line 10
	FY 2018-19 LCTOP GGRF Funds Requested (\$)	\$ 219,240
	Total LCTOP GGRF Funds (\$)	\$ 219,240
	Total GGRF Funds (\$)	\$ 219,240
	Non-GGRF Leveraged Funds (\$)	\$ -
	Total Funds (\$)	\$ 219,240

GHG Summary		
	Total LCTOP GHG Emission Reductions (MTCO ₂ e)	16
	Total GHG Emission Reductions (MTCO ₂ e)	16
	Total GHG Emission Reductions per Total LCTOP GGRF Funds (MTCO ₂ e/\$million)	75
	Total GHG Emission Reductions per Total GGRF Funds (MTCO ₂ e/\$million)	75



California Air Resources Board
Benefits Calculator Tool for the
Low Carbon Transit Operations Program
California Climate Investments

Project Name	Increase frequency on Line 10
Co-benefits and Key Variables Summary	
	LCTOP GGRF Funds
Diesel PM emission reductions (lbs)	2
NOx emission reductions (lbs)	-1
PM2.5 emission reductions (lbs)	1
ROG emission reductions (lbs)	3
Passenger VMT reductions (miles)	76,674
Fossil fuel use reductions (gallons)	1,505
Fossil fuel energy use reductions (kWh)	N/A
Renewable energy generated (kWh)	N/A
Travel cost savings (\$)	\$108,315
Energy and fuel cost savings (\$)	-\$5,271
	Additional California Climate Investments Program(s)
Diesel PM emission reductions (lbs)	N/A
NOx emission reductions (lbs)	N/A
PM2.5 emission reductions (lbs)	N/A
ROG emission reductions (lbs)	N/A
Passenger VMT reductions (miles)	0
Fossil fuel use reductions (gallons)	0
Fossil fuel energy use reductions (kWh)	N/A
Renewable energy generated (kWh)	N/A
Travel cost savings (\$)	N/A
Energy and fuel cost savings (\$)	N/A
	Total California Climate Investments
Diesel PM Emission Reductions (lbs)	2
NOx emission reductions (lbs)	-1
PM2.5 emission reductions (lbs)	1
ROG emission reductions (lbs)	3
Passenger VMT reductions (miles)	76,674
Fossil fuel use reductions (gallons)	1,505
Fossil fuel energy use reductions (kWh)	N/A
Renewable energy generated (kWh)	N/A
Travel cost savings (\$)	\$108,315
Energy and fuel cost savings (\$)	-\$5,271

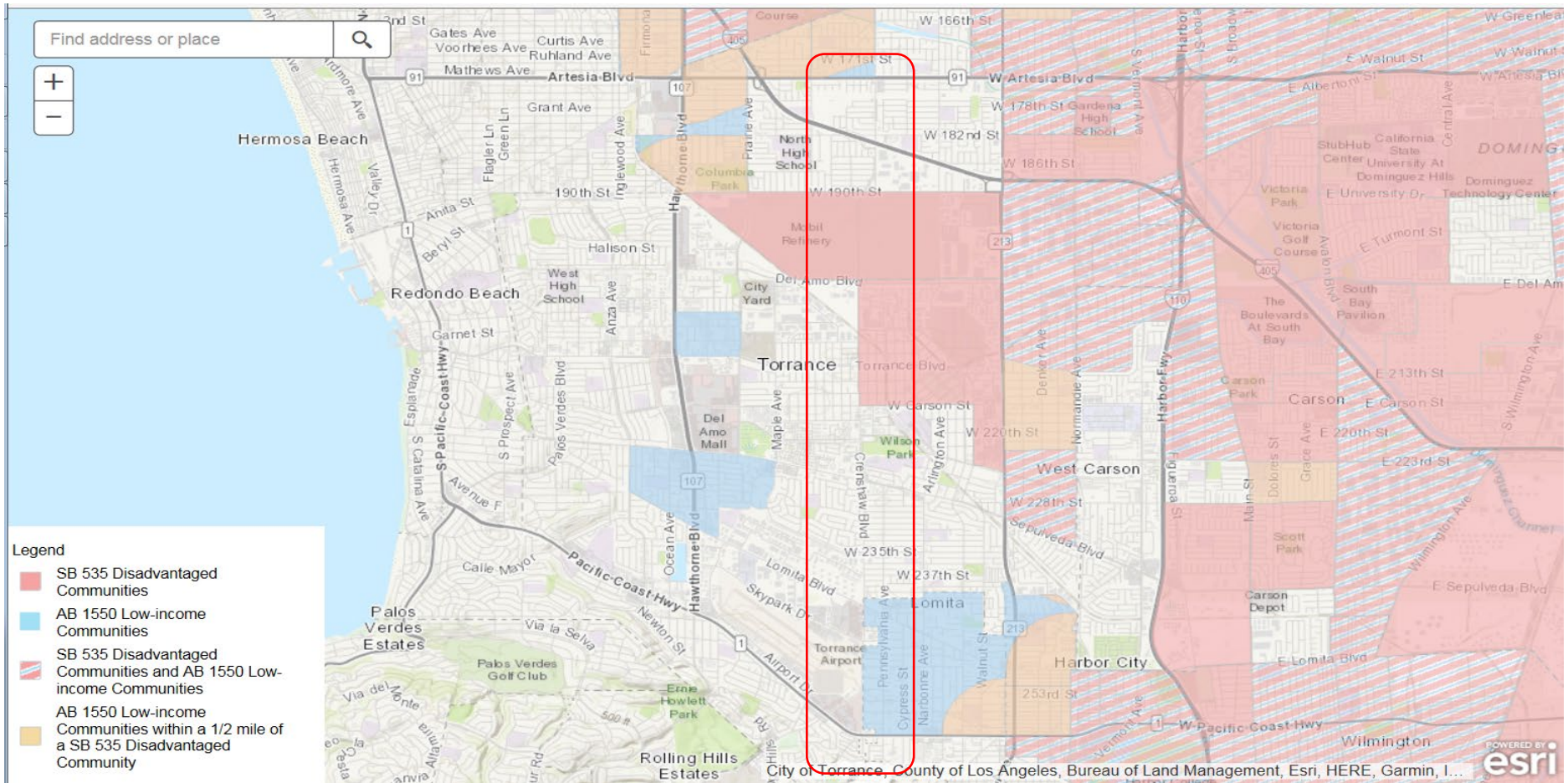


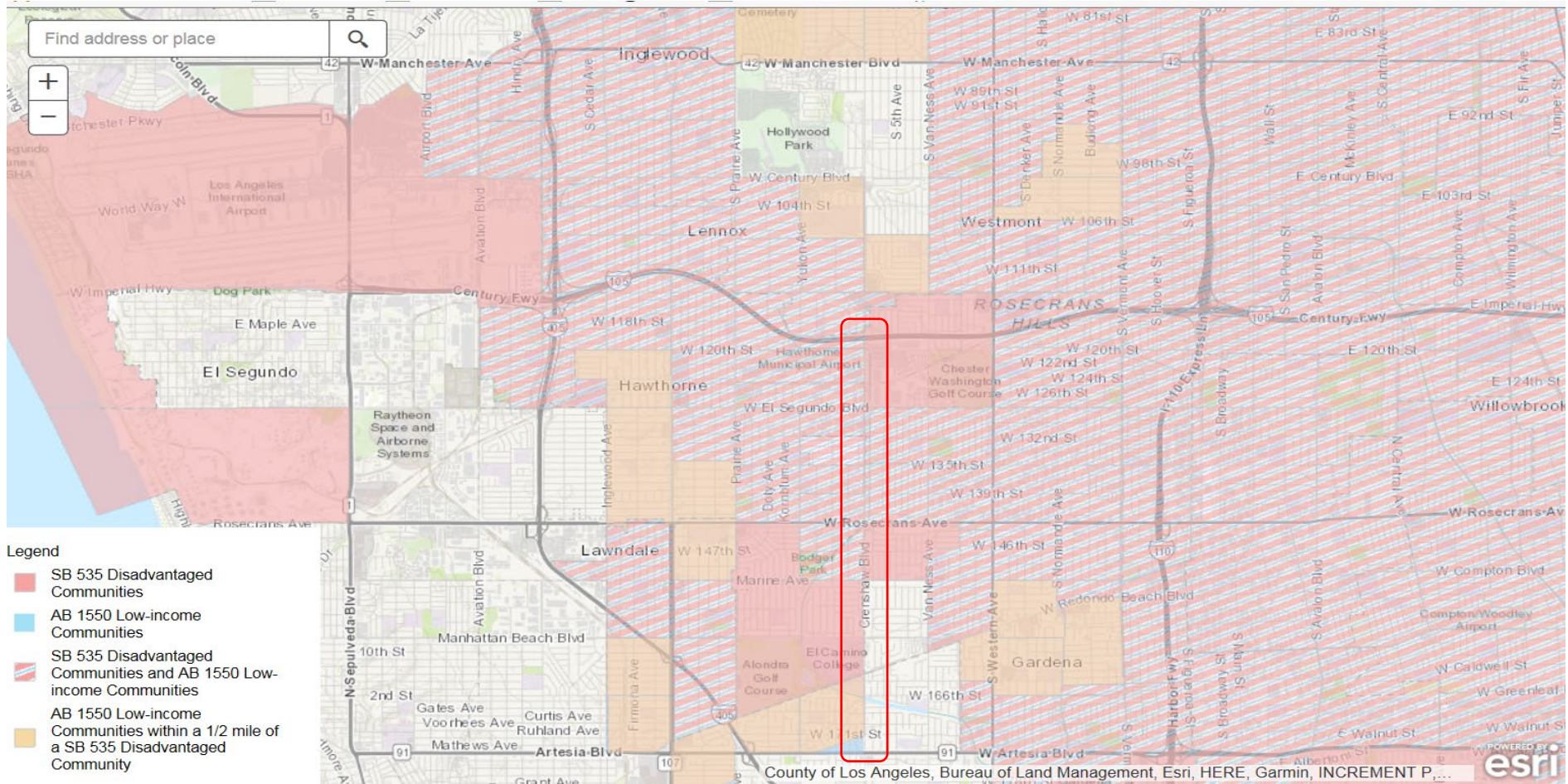
California Air Resources Board Benefits Calculator Tool for the Low Carbon Transit Operations Program California Climate Investments

Total Full-time Equivalent Jobs Supported by Project Budget	6.2
Total Full-time Equivalent Jobs Supported by Project GGRF Funds	6.2
Full-time Equivalent Jobs Directly Supported by Project GGRF Funds	4.6
Full-time Equivalent Jobs Indirectly Supported by Project GGRF Funds	0.5
Full-time Equivalent Induced Jobs Supported by Project GGRF Funds	1.1

Note:

It is not appropriate to directly compare the job estimates from this Job Co-benefit Modeling Tool to the GGRF project dollars. California Climate Investments facilitate greenhouse gas emission reductions and deliver a suite of economic, environmental, and public health co-benefits, including job co-benefits. A different mix of spending on materials, equipment, and labor is expected across various California Climate Investments project types and match funding arrangements. As such, some project types will support more jobs than others.





Project Location Information

#	ID	Name	Latitude	Longitude	Priority Population
1	594079	Crenshaw BI at El Camino College	33.88553900000	-118.32670000000	
2	594077	Crenshaw BI at Redondo Beach BI	33.88305600000	-118.32669400000	
3	594081	Crenshaw BI at Manhattan Beach BI	33.88711400000	-118.32669200000	
4	594099	Crenshaw BI at El Segundo BI	33.91604200000	-118.32666700000	
5	594087	Crenshaw BI at Marine Av	33.89439200000	-118.32667200000	
6	592097	Crenshaw Station (Northbound Bay)	33.92538200000	-118.32628200000	
7	592057	Crenshaw BI at 190th St	33.85891000000	-118.32744000000	
8	592089	Crenshaw BI at 135th St	33.90965000000	-118.32642670000	
9	592061	Crenshaw BI at 182nd St	33.86598000000	-118.32632670000	
10	594089	Crenshaw BI at 147th St	33.89856900000	-118.32665800000	
11	592083	Crenshaw BI at 147th St	33.89862667000	-118.32640670000	
12	592087	Crenshaw BI at 139th St	33.90581833000	-118.32642670000	
13	592085	Crenshaw BI at Rosecrans Av	33.90238600000	-118.32636100000	
14	594097	Crenshaw BI at 132nd St	33.91208900000	-118.32665600000	
15	594085	Crenshaw BI at 154th St	33.89070600000	-118.32667200000	
16	594101	Crenshaw BI at Jack Northrop Av	33.91988700000	-118.32668200000	
17	592093	Crenshaw BI at El Segundo BI	33.91613600000	-118.32636400000	
18	592059	Crenshaw BI at 186th St	33.86146900000	-118.32632700000	
19	592091	Crenshaw BI at 132nd St	33.91243167000	-118.32642670000	
20	592063	Crenshaw BI at 178th St	33.86956000000	-118.32632670000	
21	592095	Crenshaw BI at Jack Northrop Av	33.91937200000	-118.32635600000	
22	594064	Crenshaw BI at 185th St	33.86284200000	-118.32664100000	