

PROJECT DELIVERY REPORT

Trade Corridors Improvement Fund

The submitting agency will be responsible for maintaining documentation of the information entered on this report.
(Please type your response, handwritten reports will not be accepted)

A. Project Information

Date: 1/8/2019

TCIF # (Segment): 1100000412 (LA-ODIS 70) Other Project Identifier (EA, Project #, PPNO, etc): EA # 11-29770

Project Title: Construct At-Grade Improvement at Harbor Dr. and Cesar E. Chavez Parkway

Delivery Report: ☐ Final- Due within six months of project becoming operable.
☒ Supplemental - Due at the conclusion of all project activities.

Location: County: San Diego City: San Diego, CA

Project Description: In the City of San Diego, Construct At-Grade Improvements at Harbor Dr. and Cesar Chavez Pkwy

B. Contact Information

Implementing Agency: Caltrans, SANDAG, San Diego Unified Port District Caltrans District Number: 11

Contact Person: Donaldo Martinez, P.E. Phone: (619) 688-6090

Email Address: Martinez, Donaldo F@DOT <donaldo.martinez@dot.ca.gov>

C. Cost				
	Adopted Program Amount (\$)	Current Approved Amount (\$)	Actual Expended Amount (\$)	Net Difference (Dollars)
Environmental				
Total Amount	\$2,150,000.00	\$1,163,000.00	\$1,162,710.44	\$289.56
Design				
Total Amount	\$3,760,000.00	\$1,031,000.00	\$1,030,809.00	\$191.00
Right of Way				
Total Amount	\$8,990,000	\$0	\$0	\$0
Construction				
TCIF	\$30,910,000	\$598,000.00	\$597,224.51	\$775.49
Local	\$21,390,000	\$1,162,000.00	\$1,161,858.89	\$141.11
Federal	\$0	\$0	\$0	\$0
Other	\$0	\$0	\$0	\$0
Totals	\$67,200,000	\$3,954,000	\$3,952,602.84	\$1,397.16

D. Schedule				
	Adopted Program Date	Current Approved Date	Actual Begin/End Date	Net Difference (Months)
Environmental Phase				
Begin	07/02/08	07/02/08	11/07/08	4
End	04/19/11	09/29/11	09/29/11	0
Design (PS&E) Phase				
Begin	04/20/11	09/30/11	10/04/11	0
End	05/23/13	05/23/13	05/23/13	0
Right of Way Phase				
Begin	04/20/11	09/30/11	04/20/11	-5
End	05/23/13	05/23/13	05/23/13	0
Construction Phase				
Begin	11/07/13	11/07/13	10/04/13	-1
End	08/25/16	08/25/16	01/15/15	-19
Closeout Date				
Begin	02/27/17	02/27/17	01/03/17	-1
End	08/25/17	08/25/17	05/01/17	-3

E. Amendments**List approved amendments**

Amendment #	CTC Meeting	Summary of Changes (Scope, Cost, Schedule)	
TCIF-P-0809-01B	Sept 2008	Adoption	
TCIF-P-1213-07	Sept 2012	Scope, change from grade separated to at-grade crossing, programming reduction of \$30.910M to \$1.550M for construction.	
TCIF-A-1213-07	May 2013	Allocation of \$1.55M for construction.	TCIF-
AA-1314-15	Mar 2014	Allocation amendment - reduce TCIF allocation for construction by \$802k from \$1.550M to \$748k.	

Outcomes	Adopted Program	Current Approved	Actual
Safety	<p>Increase safety by removing trucks from residential areas and removing the at-grade rail crossing for trucks. Project removes trucks from local roads (residential areas). According to Transportation Research Record No. 1322, Large Vehicle Safety: Transit and Trucks 1991, the most significant and consistent factor associated with truck accident rates was the roadway class (highest rates on the "local" road system, lowest on limited-access highways). Project will accommodate future Bayshore Bikeway and improve bicyclists safety by separating bicycle and vehicular traffic with designated bikelane. The proposed improvements at 10th Avenue would promote trucks to use Harbor Drive, rather than Cesar E. Chavez Parkway through the heart of the residential community of Barrio Logan.</p>	<p>The project improvements will improve safety by diverting trucks away from Cesar E. Chavez Parkway (the heart of Barrio Logan residential area). Since it is an at-grade alternative the trucks need to cross the BNSF tracks west of Harbor Drive.</p> <p>This project is anticipated to divert trucks away from residential areas to Harbor Drive which is a primary arterial.</p> <p>This Project will accommodate future Bayshore Bikeway and improve bicyclists safety by separating bicycle and vehicular traffic with designated bikelane. The proposed improvements at 10th Avenue will promote trucks to use Harbor Drive, rather than Cesar E. Chavez Parkway through the heart of the residential community of Barrio Logan.</p>	<p>This Project was intended to divert trucks away from residential areas to Harbor Drive, and it did. The Original TCIF Port Access Study, specifically page 31 of Boyle Engineering Freeway Access Study shows daily calculated truck counts on Tenth Avenue/Cesar Chavez Drive were 1701 trucks per day. The 2017 Linscott Study, page 4 table, shows where truck counts on Cesar Chavez were reported at 18 per day.</p>

Velocity	<p>40% increase in truck average velocity by 10 mph. The current delay in seconds at one project intersections is 17.5 seconds (AM) and 18.9 seconds (PM). In the year 2030, delays will increase to 25.8 (AM) and 54.1 (PM) without the project, whereas the preferred project alternative is projected decrease these delays to 18.6 (AM) and 25.9 (PM). Proposed improvements result in average delay reduction of 55.6 seconds per vehicle (all vehicles) in 2030.</p>	<p>Trucks will be encouraged to use Harbor Drive to access I-5, thru context sensitive solutions instead of the existing access via Caesar E. Chavez Parkway. The average speed on Harbor Dr. is 40 mph, as compared to 30 mph on Cesar Chavez Pkwy. The delay under existing conditions at all of the signalized intersections affected by the project is 14.3 seconds (AM) and 21.3 (PM). The project alternative will have a small positive overall effect on delays, with no change to the AM peak but reducing the PM peak delay to 20.7 seconds. The average delay reduction to all vehicles is approximately 1 percent. While minor, this means that the truck traffic along Harbor Drive can be reasonably accommodated thereby the operations of alternate routes will not be negatively impacted.</p>	<p>The average Speed on Harbor Drive remains at 40 MPH, with the new Barrio Logan Archway (truck Deterrent project) the average speed on Cesar Chavez is still 30 MPH but very few trucks now travel on Cesar Chavez, other than local delivery trucks.</p> <p>While we were not able to track a specific diminution of wait time at specific traffic signals on Harbor Drive, we did have a modeling analysis done of average speeds on Harbor Drive (see attached PDF). After Project completion, we have seen a very modest increase in travel times on Harbor Drive (southbound Harbor Drive has seen 18-37 second increases, and northbound Harbor has seen increases of 26-37 seconds). This is still within acceptable ranges for the region and the slight increase in travel time must be viewed with this other information in mind:</p> <ul style="list-style-type: none"> o The increased travel time is attributable to an 8% increase in overall truck traffic from 2014 to 2015. o The fact that the project was extremely successful in diverting traffic from Caesar Chavez to Harbor Drive as there was an 12% decrease of traffic on Caesar Chavez; o Simultaneous with the TCIF Project, other intervening activities in the area must also be considered. As indicated in the attached modeling analysis, the immediate project area also experience a development / building surge including the addition of a new community college center, along with 47,000 square feet of new retail space and 92 new housing units. This was also a stimulus of additional traffic onto Harbor Dr. o While the sponsors were not able to foresee all the additional new developments on the project area; we nonetheless, see the net positive outcome of diverting traffic from the urban areas to Harbor Drive with a very modest increase in Harbor Drive travel times. o Kindly see attached travel analysis.
Throughput	<p>65% increase in truck throughput, to 11,960 trucks per day</p>	<p>The truck throughput will be increased. Truck traffic will be diverted away from the Barrio Logan neighborhood.</p>	<p>the Intention of the project was to increase throughput on to Harbor Drive as the preferred higher speed truck route, and to diminish throughput on Cesar Chavez. This output was achieved, see safety answer above.</p>

Reliability	Improved LOS at 21 intersections to LOS "D" or better. At one project intersection, LOS will be raised from LOS C (AM)/D (PM) in 2030 without project to LOS B (AM)/C (PM) with project. Currently, the LOS at that intersection is B (AM/PM)	An acceptable LOS is maintained at all intersections. An acceptable LOS is maintained at that one project intersection.	An acceptable level of Service (LOS) is maintained at all intersections. This outcome is also met by the TCIF project, level of Service is maintained on Cesar Chavez, as the truck throughput has been minimized, see safety outcome above.
Congestion Reduction	67 % reduction in average truck delay or approximately 242 truck-hour/day.	Truck delay along Cesar Chavez Pkwy will remain the same or be slightly shorter, as more trucks are diverted to Harbor Drive.	Truck congestion delay is a non-issue on Cesar Chavez/10th Avenue now, as 2017 truck counts have been rolled back to 17 trucks per day at this intersection.
Emissions Reductions	67% reduction in vehicle delay time (idling at intersections), or 2,524 hours of vehicle delay per day. Diversion of truck operations from residential areas. Project contributes to regional reductions in reactive organic gases (ROG) and nitrogen oxides (NOx) emissions. Regional analyses indicate de minimis differences in regional pollution with project; CO and CO2 emissions levels reduced in 2020 with Project (40 pounds/day and 20 pounds/day, respectively). Improved freeway/arterial operations for truck trips reduce emissions, as highest PM10 emissions on a per mile basis associated with speeds lower than 25 mph.	Trucks will be diverted from residential areas. The project is anticipated to result in air quality improvement along Cesar E. Chavez Parkway since trucks will be diverted to Harbor Drive and other truck routes with less idling time. The project contributes to regional reductions in reactive organic gases (ROG) and nitrogen oxides (Nox) emissions.	The project undeniably has reduced reactive organic gases (ROG) and nitrogen oxides (NOx) emissions with the 94% reduction in truck traffic at the intersection.

G. Differences/Variations

Describe differences/variances (if any) and reason for, between approved scope, cost, schedule, and actual.

Environmental phase over-expended the programmed amount by 3.7% due to unforeseen SANDAG Administrative expenses. The Design phase was over-expended by 17.1% for two reasons: (1) Right of Way charged Design for the work they had on the project without opening a Right of Way phase which often occurs when the expenditures are limited, and (2) Project management services were provided throughout construction by Caltrans for this SANDAG Implemented project in the Design phase. To cover this over expenditure, San Diego Unified Port funds were moved from the Right of Way phase to Design. When Construction funds were allocated, the proportion of TCIF to Local 49% to 51%. When the project awarded lower than allocation, the proportion became 42% TCIF to 58% Port because all support dollars were Port funded. The final expense ratio was 34% TCIF to 66% Port because Construction support overexpended by 16% and \$150,775 was returned to TCIF. (See final invoice attached.) The savings appear disproportionate on this table due to the fact the Port funds were not reduced at Award and remained on the project.

The Environmental phase had a four-month delayed start due to time needed for project team start up, delay in getting Federal money in place and an overly ambitious schedule. The Environmental clearance was achieved late but only by as much as the delayed start. There was little to no Right of Way involvement and it was determined the phase could begin five months earlier than was "currently approved." Construction was completed 19 months early as the schedule did not reflect the shorter time frame needed for the down-scoped construction. The Closeout was completed slightly early because construction was early.

H. Lessons-Learned/Best Practices

Describe lessons-learned and best practices for future projects.

Certification Signature

Implementing Agency

I hereby certify to the best of my knowledge and belief, the information in this report is a true and accurate record. The work was performed in accordance with the CTC approved scope, cost, schedules, and benefit information in the Baseline Agreement.

Jacqueline Appleton-Deane

(Print name) Project Manager


(Signature) Project Manager

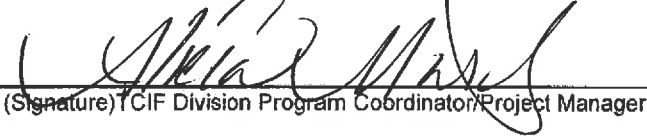
1.11.19
Date

Caltrans

The TCIF Division Program Coordinator and/or the Project Manager from the California Department of Transportation has reviewed the information contained in this report and has verified the information presented is correct.

Alicia Murillo

(Print Name) TCIF Division Program Coordinator/Project Manager


(Signature) TCIF Division Program Coordinator/Project Manager

1/15/19
Date

The TCIF Program Lead from the California Department of Transportation has reviewed the information contained in the report and concurs with the approval.

Tony Cano

(Print Name) TCIF Program Lead


(Signature) TCIF Program Lead

1/18/19
Date

Distribution: 1) Local Agency, 2) Division Program Coordinator/Project Manager, 3) TCIF Program Lead, 4) CTC