

AGENDA

Board of Directors Metro Valley Study Session

November 10, 2021

*****Start Time: 9:30 AM*****

Location

San Bernardino County Transportation Authority
First Floor Lobby Board Room
1170 W. 3rd Street, San Bernardino, CA 92410

Board of Directors

Valley Representatives

Study Session Chair

Dawn Rowe, Supervisor
Third District

Study Session Vice-Chair

John Valdivia, Mayor
City of San Bernardino

Eunice Ulloa, Mayor
City of Chino

Ray Marquez, Vice Mayor
City of Chino Hills

Frank Navarro, Mayor
City of Colton

Acquanetta Warren, Mayor
City of Fontana

Darcy McNaboe, Mayor
City of Grand Terrace

Larry McCallon, Mayor Pro Tem
City of Highland

Rhodes "Dusty" Rigsby, Council Member
City of Loma Linda

John Dutrey, Mayor
City of Montclair

Alan Wapner, Mayor Pro Tem
City of Ontario

L. Dennis Michael, Mayor
City of Rancho Cucamonga

Paul Barich, Mayor
City of Redlands

Deborah Robertson, Mayor
City of Rialto

Carlos A. Garcia, Council Member
City of Upland

David Avila, Council Member
City of Yucaipa

Mountain/Desert Representatives

Daniel Ramos, Mayor Pro Tem
City of Adelanto

Art Bishop, Council Member
Town of Apple Valley

Paul Courtney, Mayor
City of Barstow

Rick Herrick, Mayor
City of Big Bear Lake

Cameron Gregg, Mayor
City of Hesperia

Edward Paget, Vice Mayor
City of Needles

Joel Klink, Council Member
City of Twentynine Palms

Debra Jones, Mayor
City of Victorville

Rick Denison, Council Member
Town of Yucca Valley

County Board of Supervisors

Paul Cook, First District

Janice Rutherford, Second District

Curt Hagman, Fourth District

Joe Baca, Jr., Fifth District

Ex-Officio Member – Michael Beauchamp, Caltrans District 8 Director

Ray Wolfe, Executive Director

Julianna Tillquist, General Counsel

**San Bernardino County Transportation Authority
San Bernardino Council of Governments**

AGENDA

Board of Directors Metro Valley Study Session

**November 10, 2021
9:30 AM**

Location

**First Floor Lobby Board Room
1170 W. 3rd Street, San Bernardino, CA 92410**

To obtain additional information on any items, please contact the staff person listed under each item. You are encouraged to obtain any clarifying information prior to the meeting to allow the Board to move expeditiously in its deliberations. Additional ***“Meeting Procedures”*** and agenda explanations are attached to the end of this agenda.

CALL TO ORDER

(Meeting Chaired by Dawn Rowe)

- i. Pledge of Allegiance
- ii. Attendance
- iii. Announcements
- iv. Agenda Notices/Modifications – Ana Arellano

Possible Conflict of Interest Issues

Note agenda item contractors, subcontractors and agents which may require member abstentions due to conflict of interest and financial interests. Board Member abstentions shall be stated under this item for recordation on the appropriate item.

1. Information Relative to Possible Conflict of Interest

Note agenda items and contractors/subcontractors, which may require member abstentions due to possible conflicts of interest.

This item is prepared for review by Board of Directors and Committee Members.

Pg. 9

CONSENT CALENDAR

Items listed on the Consent Calendar are expected to be routine and non-controversial. The Consent Calendar will be acted upon as a single motion. Items on the Consent Calendar may be removed for discussion by Board Members.

Consent - Project Delivery

2. Construction Contract Change Orders to On-Going Construction Contracts

Pg. 11

Receive and file Change Order Report.

Presenter: Henry Stultz

This item is not scheduled for review by any other policy committee or technical advisory committee.

DISCUSSION ITEMS

Discussion - Project Delivery

3. Revision to Landscape Policy No. 34502

Pg. 22

That the following be reviewed and recommended for final approval by the Board of Directors (Board), acting as the San Bernardino County Transportation Authority, at a regularly scheduled Board meeting:

Approve revisions to Policy No. 34502 to remove obsolete terms and funding sources, and to include landscaping terms in alignment with the Board's objectives.

Presenter: Paula Beauchamp

This item is not scheduled for review by any other policy committee or technical advisory committee.

4. Request for Proposals for Final Design Services for Interstate 10 Corridor Freight and Express Lane Project - Contract 2

Pg. 29

That the following be reviewed and recommended for final approval by the Board of Directors, acting as the San Bernardino County Transportation Authority, at a regularly scheduled Board meeting:

Authorize the release of Request for Proposals No. 22-1002722 for preparation of Plans, Specifications, and Estimates for the Interstate 10 Corridor Freight and Express Lane Project - Contract 2.

Presenter: Sal Chavez

This item is not scheduled for review by any other policy committee or technical advisory committee. SBCTA General Counsel, Procurement Manager and Risk Manager have reviewed this item and the draft RFP.

5. San Bernardino Valley Coordinated Traffic Signal System - Amendments to Iteris Contract No. 16-1001515 Pg. 45

That the following be reviewed and recommended for final approval by the Board of Directors, acting as the San Bernardino County Transportation Authority, at a regularly scheduled Board meeting:

A. Approve Amendment No. 3 to Contract No. 16-1001515 with Iteris, Inc. (Iteris) to increase the Contract not-to-exceed amount by \$1,000,000 to \$4,227,021.72 and extend the expiration date from January 3, 2022 to January 3, 2023.

B. Waive the five (5) year maximum contract term as defined in the Contracting and Procurement Policy No. 11000 since Amendment No. 3 would extend the Contract beyond five years.

C. Authorize the Executive Director, or his designee, to execute Contract Task Order (CTO) No. 5 for Contract No. 16-1001515 with Iteris to implement the Haven Avenue Corridor Technological Enhancement Pilot Project in an amount not-to-exceed \$1,000,000 after execution of Amendment No. 3.

D. Authorize the Executive Director, or his designee, to execute Amendment No. 5 to CTO No. 2 for Contract No. 16-1001515 with Iteris to extend the task order completion date by one (1) year to January 3, 2023 after execution of Amendment No. 3.

Presenter: Timothy Byrne

This item is not scheduled for review by any other policy committee or technical advisory committee. SBCTA General Counsel, Procurement Manager and Risk Manager have reviewed this item, the draft amendment and the CTO.

Public Comment

Brief Comments from the General Public

Comments from Board Members

Brief Comments from Board Members

ADJOURNMENT

Additional Information

Attendance
Acronym List
Mission Statement

Pg. 69
Pg. 72
Pg. 74

The next Board of Directors Metro Valley Study Session is scheduled for December 9, 2021.

Meeting Procedures and Rules of Conduct

Meeting Procedures - The Ralph M. Brown Act is the state law which guarantees the public's right to attend and participate in meetings of local legislative bodies. These rules have been adopted by the Board of Directors in accordance with the Brown Act, Government Code 54950 et seq., and shall apply at all meetings of the Board of Directors and Policy Committees.

Accessibility - The meeting facility is accessible to persons with disabilities. If assistive listening devices or other auxiliary aids or services are needed in order to participate in the public meeting, requests should be made through the Clerk of the Board at least three (3) business days prior to the Board meeting. The Clerk can be reached by phone at (909) 884-8276 or via email at clerkoftheboard@gosbcta.com and office is located at 1170 W. 3rd Street, 2nd Floor, San Bernardino, CA.

Agendas – All agendas are posted at www.gosbcta.com/board/meetings-agendas/ at least 72 hours in advance of the meeting. Staff reports related to agenda items may be reviewed online at that web address. Agendas are also posted at 1170 W. 3rd Street, 1st Floor, San Bernardino at least 72 hours in advance of the meeting.

Agenda Actions – Items listed on both the “Consent Calendar” and “Discussion” contain recommended actions. The Board of Directors will generally consider items in the order listed on the agenda. However, items may be considered in any order. New agenda items can be added and action taken by two-thirds vote of the Board of Directors or unanimous vote of members present as provided in the Ralph M. Brown Act Government Code Sec. 54954.2(b).

Closed Session Agenda Items – Consideration of closed session items excludes members of the public. These items include issues related to personnel, pending litigation, labor negotiations and real estate negotiations. Prior to each closed session, the Chair will announce the subject matter of the closed session. If action is taken in closed session, the Chair may report the action to the public at the conclusion of the closed session.

Public Testimony on an Item – Members of the public are afforded an opportunity to speak on any listed item. Individuals wishing to address the Board of Directors or Policy Committee Members should complete a “Request to Speak” form, provided at the rear of the meeting room, and present it to the Clerk prior to the Board's consideration of the item. A “Request to Speak” form must be completed for each item an individual wishes to speak on. When recognized by the Chair, speakers should be prepared to step forward and announce their name and address for the record. In the interest of facilitating the business of the Board, speakers are limited to three (3) minutes on each item. Additionally, a twelve (12) minute limitation is established for the total amount of time any one individual may address the Board at any one meeting. The Chair or a majority of the Board may establish a different time limit as appropriate, and parties to agenda items shall not be subject to the time limitations. Members of the public requesting information be distributed to the Board of Directors must provide 40 copies of such information in advance of the meeting, except for noticed public hearings. Information provided as public testimony is not read into the record by the Clerk.

The Consent Calendar is considered a single item, thus the three (3) minute rule applies. Consent Calendar items can be pulled at Board member request and will be brought up individually at the specified time in the agenda allowing further public comment on those items.

Agenda Times – The Board is concerned that discussion take place in a timely and efficient manner. Agendas may be prepared with estimated times for categorical areas and certain topics to be discussed. These times may vary according to the length of presentation and amount of resulting discussion on agenda items.

Public Comment – At the end of the agenda, an opportunity is also provided for members of the public to speak on any subject within the Board’s authority. Matters raised under “Public Comment” may not be acted upon at that meeting. “Public Testimony on any Item” still applies.

Disruptive or Prohibited Conduct – If any meeting of the Board is willfully disrupted by a person or by a group of persons so as to render the orderly conduct of the meeting impossible, the Chair may recess the meeting or order the person, group or groups of person willfully disrupting the meeting to leave the meeting or to be removed from the meeting. Disruptive or prohibited conduct includes without limitation addressing the Board without first being recognized, not addressing the subject before the Board, repetitiously addressing the same subject, failing to relinquish the podium when requested to do so, bringing into the meeting any type of object that could be used as a weapon, including without limitation sticks affixed to signs, or otherwise preventing the Board from conducting its meeting in an orderly manner. Your cooperation is appreciated!

General Practices for Conducting Meetings of Board of Directors and Policy Committees

Attendance.

- The Chair of the Board or a Policy Committee (Chair) has the option of taking attendance by Roll Call or Self-Introductions. If attendance is taken by Roll Call, the Clerk of the Board will call out by jurisdiction or supervisorial district. The Member or Alternate will respond by stating his/her name. If attendance is by Self-Introduction, the Member or Alternate will state his/her name and jurisdiction or supervisorial district.
- A Member/Alternate, who arrives after attendance is taken, shall announce his/her name prior to voting on any item.
- A Member/Alternate, who wishes to leave the meeting after attendance is taken but before remaining items are voted on, shall announce his/her name and that he/she is leaving the meeting.

Basic Agenda Item Discussion.

- The Chair announces the agenda item number and states the subject.
- The Chair calls upon the appropriate staff member or Board Member to report on the item.
- The Chair asks members of the Board/Committee if they have any questions or comments on the item. General discussion ensues.
- The Chair calls for public comment based on "Request to Speak" forms which may be submitted.
- Following public comment, the Chair announces that public comment is closed and asks if there is any further discussion by members of the Board/Committee.
- The Chair calls for a motion from members of the Board/Committee.
- Upon a motion, the Chair announces the name of the member who makes the motion. Motions require a second by a member of the Board/Committee. Upon a second, the Chair announces the name of the Member who made the second, and the vote is taken.
- The "aye" votes in favor of the motion shall be made collectively. Any Member who wishes to oppose or abstain from voting on the motion, shall individually and orally state the Member's "nay" vote or abstention. Members present who do not individually and orally state their "nay" vote or abstention shall be deemed, and reported to the public, to have voted "aye" on the motion.

The Vote as specified in the SANBAG Bylaws.

- Each Member of the Board of Directors shall have one vote. In the absence of the official representative, the alternate shall be entitled to vote. (Board of Directors only.)
- Voting may be either by voice or roll call vote. A roll call vote shall be conducted upon the demand of five official representatives present, or at the discretion of the presiding officer.

Amendment or Substitute Motion.

- Occasionally a Board Member offers a substitute motion before the vote on a previous motion. In instances where there is a motion and a second, the maker of the original motion is asked if he or she would like to amend his or her motion to include the substitution or withdraw the motion on the floor. If the maker of the original motion does not want to amend or withdraw, the substitute motion is voted upon first, and if it fails, then the original motion is considered.
- Occasionally, a motion dies for lack of a second.

Call for the Question.

- At times, a Member of the Board/Committee may “Call for the Question.”
- Upon a “Call for the Question,” the Chair may order that the debate stop or may allow for limited further comment to provide clarity on the proceedings.
- Alternatively and at the Chair’s discretion, the Chair may call for a vote of the Board/Committee to determine whether or not debate is stopped.
- The Chair re-states the motion before the Board/Committee and calls for the vote on the item.

The Chair.

- At all times, meetings are conducted in accordance with the Chair’s direction.
- These general practices provide guidelines for orderly conduct.
- From time-to-time circumstances require deviation from general practice.
- Deviation from general practice is at the discretion of the Chair.

Courtesy and Decorum.

- These general practices provide for business of the Board/Committee to be conducted efficiently, fairly and with full participation.
- It is the responsibility of the Chair and Members to maintain common courtesy and decorum.

Adopted By SANBAG Board of Directors January 2008

Revised March 2014

Revised May 4, 2016

Minute Action

AGENDA ITEM: 1

Date: November 10, 2021

Subject:

Information Relative to Possible Conflict of Interest

Recommendation:

Note agenda items and contractors/subcontractors, which may require member abstentions due to possible conflicts of interest.

Background:

In accordance with California Government Code 84308, members of the SBCTA Board may not participate in any action concerning a contract where they have received a campaign contribution of more than \$250 in the prior twelve months from an entity or individual, except for the initial award of a competitively bid public works contract. This agenda contains recommendations for action relative to the following contractors:

Consent/Discussion Calendar Items

Item No.	Contract No.	Principals & Agents	Subcontractors
2	19-1002181	Granite Construction Company <i>Joseph P. Richardson</i>	Alcorn Fence Company Chrisp Company Drill Tech Drilling & Shoring Ferreira Construction Co., Inc. Integrity Rebar Placers Marina Landscape Statewide Traffic & Safety Signs
	19-1002078	Guy F. Atkinson Construction, LLC (dba Guy F. Atkinson) <i>Timothy Stroud</i>	All American Asphalt Cal Stripe, Inc. Case Pacific Company Commercial Metals Company Cooper Engineering, Inc. Coral Construction Company DeesBurke Engineering Contractors, LLC Diverscape, Inc. Dywidag Systems International USA, Inc. Ferreira Construction Company, Inc. Foundation Pile, Inc. Harber Companies, Inc. L. Johnson Construction, Inc. Maneri Traffic Control, Inc. Penhall Company

Entity: San Bernardino Council of Governments, San Bernardino County Transportation Authority

Board of Directors Metro Valley Study Session Agenda Item

November 10, 2021

Page 2

2 Cont'			TreeSmith Enterprises, Inc. Universal Construction
	19-1002196	Security Paving Company, Inc. <i>Joseph Fernidino</i>	ACE Fence AM Concrete BELCO CGO Construction Co. Drill Tech DYWIDAG Griffith Company Integrity Rebar KIE-CON, Inc. Statewide Safety Systems
	17-1001682	Diversified Landscape Company <i>Vicki Morlaez</i>	None
5	16-1001515	Iteris, Inc. <i>Ramin Massoumi</i>	Crosstown Electrical & Data, Inc. Miovision Technologies, Inc. National Data & Surveying Services, Inc.

Financial Impact:

This item has no direct impact on the budget.

Reviewed By:

This item is prepared for review by Board of Directors and Committee Members.

Responsible Staff:

Henry Stultz, Director of Project Delivery

Approved
Board of Directors Metro Valley Study Session
Date: November 10, 2021

Witnessed By:

San Bernardino Council of Governments
San Bernardino County Transportation Authority

Minute Action

AGENDA ITEM: 2

Date: November 10, 2021

Subject:

Construction Contract Change Orders to On-Going Construction Contracts

Recommendation:

Receive and file Change Order Report.

Background:

San Bernardino County Transportation Authority has thirteen (13) on-going construction contracts, of which four (4) have had Construction Change Orders (CCOs) approved since the last reporting to the Board of Directors Metro Valley Study Session on October 14, 2021. The CCOs are listed below.

A. Contract No. (CN) 19-1002181 with Granite Construction Company, for the Archibald Avenue Improvements Project at State Route (SR) 60, Bid Build Contract: CCO No. 39 (\$15,000 increase for extension of Midwest Guardrail system, by 25' to meet safety requirement), CCO No. 40 (\$9,566 increase for installation of concrete under bridge center median), CCO No. 41 (\$15,200 increase for furnish and installation of handrail along ADA curb), CCO No. 42 (\$2,456 increase for test low point to assure water flow for on and off ramp), and CCO No. 44 (\$5,000 increase for removal and replacement of faulty master valve and pressure regulator).

B. CN 19-1002078 with Guy F. Atkinson Construction, LLC, for the State Route 210 Lane Addition, Base Line Interchange and Pavement Rehabilitation: CCO No. 41 (\$23,627 increase for drainage system modification).

C. CN 19-1002196 with Security Paving Company, Inc., for the Central Avenue Improvements Project at SR 60: CCO No. 13 (No increase for revision of irrigation plans), CCO No. 14 (\$40,000 increase for storm water protection per supplemental funds), and CCO No. 15 (\$20,000 increase for traffic handling plan revision).

D. CN 17-1001682 with Diversified Landscape Company, for Interstate 10 Tippecanoe Avenue Interchange Establish Existing Planting Project: CCO No. 3, Supplement 1, (\$2,428 increase for replacement of weather damaged plants), CCO No. 4 (Not-to-exceed amount of \$99,999.99 for mulch replacement), and CCO No. 5 (\$17,443.28 increase for contract extension and water reimbursement).

Financial Impact:

This item imposes no financial impact, as all CCOs are within previously approved contingency amounts under: Task No. 0830 Interchange Projects, Sub-Task No. 0887 SR 210/Lane Addition, Base Line I/C and Pavement Rehabilitation, Sub-Task No. 0894 SR 60/Archibald I/C, Sub-Task No. 0893 SR 60/Central, Sub-Task 0842 I-10 Tippecanoe Avenue Interchange EEP.

Reviewed By:

This item is not scheduled for review by any other policy committee or technical advisory committee.

Responsible Staff:

Henry Stultz, Director of Project Delivery

Entity: San Bernardino County Transportation Authority

This page was intentionally left blank

Board of Directors Metro Valley Study Session
Construction Change Orders Log

Archibald Avenue Improvements Project at SR 60 – Executed Change Orders		
Number	Description	Amount
3	Maintain Traffic	\$25,000.00
4	Maintain Existing Electrical Systems	\$15,000.00
5	Staging Changes	(\$267.57)
6	Partnering	\$20,000.00
7	SWPPP Maintenance	\$25,000.00
10	Removal of Man-Made-Buried-Object	\$8,500.00
11	Revised Retaining Wall Details	\$0.00
12	Modify Irrigation Removal Plan and Irrigation Details	\$77,416.59
13	Water Line Revisions	\$55,889.00
14	Conflicting Palm Trees Removal	\$10,000.00
15	Combine Stages 2 and 3 for Retaining Wall 16	\$0.00
16	Drainage Systems Modifications	\$33,942.75
18	Revised Closure Hours and Irrigation Crossover	\$9,000.00
19	Install Temporary Overhead Power Poles	\$6,000.00
20	Furnish Two Fire Hydrants	\$15,553.94
21	Provide Power to Existing Caltrans TMS Sign	\$72,750.69
22	Pavement Revisions	\$72,994.62
23	Pavement Revisions	(\$31,247.42)
24	Irrigation Valve Repair	\$5,000.00
26	Removal of Conflicting Trees	\$6,720.00
27	Abandon Conflicting Weigh In Motion System	\$36,028.10
28	Modify Existing Drainage Pipe and Structures	\$34,628.10
29	Modify Drainage Systems 10 and 11	(\$14,608.45)
31	Modify Conflicted Portion of Drainage System 17	\$35,000.00
32	Modify Drainage Systems 4 and 8	\$30,000.00
33	Install Video Detection Signal System at Archibald and Oak Hill Intersection	\$57,432.28
34	Relocation of the Double Close Detector Assembly at the Kuzina Property	\$18,000.00
36	Revise Stage Construction and Replace Pavement Types	\$98,911.97
37	Modify Existing Non-Standard Median Bull Nose	\$6,500.00
38	Dispute Resolution – Profile Grinding Pavement	\$20,000.00
39	Extend Midwest Guardrail System 25' to Meet Safety Requirement	\$15,000.00
40	Install Minor Concrete under Bridge Center Median	\$9,566.00
41	Furnish and Install Handrail along ADA Curb	\$15,200.00
42	Test Low Point to Assure Water Flow for On and Off Ramp	\$2,456.00
44	Remove and Replace Faulty Master Valve and Pressure Regulator	\$5,000.00
CCO TOTAL		\$ 796,366.60
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$2,122,333.00

Attachment: CCO Log (8050 : Construction Contract Change Orders MVSS2111)

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

SR 210 Lane Addition, Base Line I/C and Pavement Rehabilitation – Executed Change Orders		
Number	Description	Amount
1	Maintain Traffic SR 210 Lane Addition	\$300,000.00
2	Maintain Traffic SR 210 Base Line Interchange	\$50,000.00
3	Maintain Traffic SR 210 Pavement Rehabilitation	\$150,000.00
4	Partnering	\$100,000.00
5	Dispute Resolution Board	\$50,000.00
5 S-1	Revised Dispute Resolution Board Specifications	\$0.00
6	Federal Training Program	\$50,000.00
7	Storm Water Best Management Practice Maintenance	\$100,000.00
8	Existing Roadway Repair	\$80,000.00
8 S-1	Cold Mill and Overlay Shoulders	\$160,000.00
9	Bird Exclusionary Devices	\$50,000.00
10	Added Environmental Requirements	\$85,491.00
12	K-rail Relocation Due to A Public Incident	\$15,000.00
13	Revised Ramp Closure Charts	\$0.00
14	Revised Pile Layout for Retaining Wall 1021	\$24,312.00
15	Revisions to Santa Ana River Bridge Abutment 7-Right	\$4,035.00
16	Removal of Buried Man-Made Objects	\$75,000.00
17	Repair of Existing Irrigation Crossovers	\$20,000.00
18	Agency Provided Street Name Signs	(\$4,832.59)
19	Removal of Asbestos Shims at Sterling Ave Bridge	\$12,017.12
20	Approach Slab and Abutment Drainage Modifications	\$25,000.00
21	Deck Drain Grates	\$7,000.00
22	Remove Concrete Slab and Bollards at Gas Station	\$8,000.00
23	Added Temporary Fence	\$10,000.00
27	CIDH Foundation and Pile Quantity Adjustment	\$26,218.00
28	Revised Shop Drawings Submittal Requirements	\$0.00
29	Oil Price Fluctuation Adjustment	\$250,000.00
30	Just in Time (JIT) Training	\$5,000.00
31	Extend Irrigation Crossovers	\$127,323.00
32	Change in Treated Wood Waste Management	\$122,450.00
33	Additional Fiber Optic Pullboxes	\$127,658.33
35	CIDH Pile Quantity Increase	\$11,266.00
36	Deletion of RW 1033	(\$254,924.32)
37	Median Edge Drain Revisions	\$89,634.57
39	Add Pile Anchors	\$35,676.22
41	Drainage System Modification	\$23,627.00
42	Removal of Thickened Asphalt Concrete	\$40,000.00
43	Base Line Driveway Changes	\$15,000.00
44	Resolve Dispute – Differing Site Condition at Retaining Wall #1036	\$435,396.70
48	Sound wall 981 Tree Removal	\$5,995.00
CCO TOTAL		\$ 2,431,343.03
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$34,927,690.07

Attachment: CCO Log (8050 : Construction Contract Change Orders MVSS2111)

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

Central Avenue Improvements Project at SR 60 – Executed Change Orders		
Number	Description	Amount
1	Establish and Maintain construction Field Office	\$150,000.00
2	Revise Plans – Shoulder Pavement Section	(\$21,291.00)
5	Maintain Traffic per Supplemental funds Provided	\$40,000.00
6	Establish Partnering per Specifications	\$20,000.00
8	Establish Dispute Review Board	\$15,000.00
11	Maintain Electrical per Supplemental Funds Provided	\$15,000.00
13	Revise Irrigation Plans	\$0.00
14	Storm Water Protection per Supplemental Funds	\$40,000.00
15	Traffic Handling Plan Revision	\$20,000.00
CCO TOTAL		\$278,709.00
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$2,912,039.00

I-10 Tippecanoe Avenue Landscaping EEP – Executed Change Orders		
Number	Description	Amount
1	Replace Frost Damaged Plant Material	\$796.00
2	Replace Caltrans Phase I Irrigation Controller	\$7,777.09
3	Additional Tree Replacement	\$859.86
3 S-1	Weather Damaged Plants Replacement	\$2,428.00
4	Mulch Replenishment	\$99,999.99
5	Contract Extension and Water Reimbursement	\$17,443.28
CCO TOTAL		\$129,304.22
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$31,590.00

SR 210 Pepper Avenue Interchange EEP – Executed Change Orders		
Number	Description	Amount
1	Repairs to Existing Site Irrigation	\$10,000.00
CCO TOTAL		\$10,000.00
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$31,244.80

I-215 Segment 1 & 3 Landscape Replacement Project – Executed Change Orders		
Number	Description	Amount
1	Maintain Public Traffic	\$25,000.00
2	Storm Water Shared Costs	\$25,000.00
3	Establish Dispute Resolution Advisor	\$5,000.00
4	Remove and Dispose of Rock Cobble	\$10,000.00
4 S-1	Additional Funds	\$15,000.00
4 S-2	Additional Funds	\$4,854.82
5	Cleaning of Drainage Systems	\$25,000.00
6	Removal of Dead Trees	\$10,000.00
7	Change from 15 Gallon to 5 Gallon Plant Size	(\$43,663.00)

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

7 S-1	Additional Funds	\$2,221.02
8	Repairs to Existing Facilities	\$3,000.00
8 S-1	Additional Funds	\$2,000.00
8 S-2	Additional Funds	\$4,500.00
8 S-3	Additional Funds	\$15,250.00
8 S-4	Additional Funds	\$3,930.65
9	Lane Closure Chart Revisions	\$0.00
9 S-1	Lane Closure Chart Revisions	\$0.00
10	PVC Ball Valve	\$0.00
11	Repair Fiber Optic Cable	\$4,070.87
12	Irrigation Water Payment	\$32,384.52
12 S-1	Additional Funds	\$8,487.04
12 S-2	Additional Funds	\$1,656.78
12 S-3	Additional Funds	\$1,634.70
12 S-4	Additional Funds	\$1,603.65
12 S-5	Additional Funds	\$5,007.79
12 S-6	Additional Funds	\$5,739.61
12 S-7	Additional Funds	\$6,753.56
12 S-8	Additional Funds	\$8,666.48
12 S-9	Additional Funds	\$4,744.77
12 S-10	Additional Funds	\$5,482.89
12 S-11	Additional Funds	\$2,874.37
12 S-12	Additional Funds	\$466.51
12 S-13	Additional Funds	\$493.89
13	Increase in Gravel Mulch Costs	\$158,215.90
14	Repair Damage by Others	\$6,000.00
15	Additional Electrical Work	\$976.73
16	Additional Plant Establishment Work	\$5,000.00
16 S-1	Additional Funds	\$50,000.00
17	Remove Burned Palm Tree	\$4,000.00
CCO TOTAL		\$421,353.55
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$812,748.38

I-215 Segment 2 Landscape Replacement Project – Executed Change Orders		
Number	Description	Amount
1	Maintain Public Traffic	\$2,000.00
2	Storm Water Shared Costs	\$10,000.00
3	Establish Dispute Resolution Advisor	\$5,000.00
4	Remove and Dispose of Rock Cobble	\$10,000.00
4 S-1	Additional Funds to Remove BNSF Ballast	\$40,000.00
4 S-2	Additional Funds to Remove and Dispose of Rock Cobble	\$20,000.00
4 S-3	Additional Funds to Remove and Dispose of Rock Cobble	\$3,000.00
4 S-4	Remove Unsuitable Material	\$2,646.91
5	Cleaning of Drainage Systems	\$25,000.00
6	Removal of Dead Trees	\$10,000.00
7	Revised Special Provisions for the Cost of Water	\$0.00
7 S-1	Water Cost Adjustment	\$5,000.00

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

8	Irrigation Revisions	\$656.30
9	Relocate Trees and Irrigation outside of Clear Recovery Zone	\$10,000.00
9 S-1	Additional Funds	\$1,206.16
10	Service Connection for Irrigation	\$5,000.00
10 S-1	Additional Funds	\$15,000.00
11	Revised Ball Valves Specifications	\$0.00
12	Modify Plants Group/Type	(\$6,968.44)
13	Delete Work at 16 th	(\$54,250.70)
13 S-1	Salvage Irrigation Equipment	\$1,676.15
14	Revised Gravel Mulch Specifications	\$0.00
15	Added Irrigation Booster Pump	\$48,457.80
16	Added Closure Charts	\$0.00
17	Gravel Mulch Adjustment	\$187,717.00
18	Additional Gravel Mulch Quantities	\$21,508.05
CCO TOTAL		\$362,649.23
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$502,203.56

I-10 Corridor Contract 1		
Design Build – Executed Change Orders		
Number	Description	Amount
1	Establish Dispute Review Board	\$75,000.00
2	Partnering	\$90,000.00
3	100 Day Extension for Utility Information Submittal	\$0.00
4	Addition of Executed Utility Agreements to Technical Provisions	\$0.00
4 S-1	Executed / Revised Utility Agreements	\$0.00
4 S-2	Executed / Revised Utility Agreements	\$0.00
4 S-3	Executed / Revised Utility Agreements	\$0.00
4-S4	Executed Utility Agreements	\$0.00
5	Overhead Sign Location Change	\$0.00
6	Modifications to Insurance and Subcontractor Requirements	\$0.00
7	Provide for CHP & Maintenance Observation/Enforcement Area	\$0.00
11	Revised Pavement Delineation Detail	\$0.00
12	Mass Concrete Specification Revision	\$0.00
13	Temporary ITS Traffic Monitoring Stations	\$0.00
14	Concurrent Closure of 6th Street and Campus Avenue Bridges	\$0.00
15	Modify Utility Relocation Work Packages	\$0.00
16	Revised Requirements for Shop Drawings Submittals	\$0.00
17	Revised Ramp Lane Closure Requirements	\$0.00
18	Revised Tech Provision 14.3.5 “Design Submittals” Requirements	\$0.00
19	Modifications to the Project Aesthetics and Landscape Master Plan	\$0.00
20	Added Pool Removal and (2) Electrical Panel Replacements	\$42,790.00
21	Revised SHOPP Pavement Rehabilitation Work Limits	\$657,200.00
22	Revised East End Ultimate Paving Limits	\$257,050.00
23	4th Street Striping	\$14,000.00
24	GAD and ROW Revisions	(\$470,125.00)
25	Deletion of Sound Wall 1190	(\$322,150.00)
26	Euclid Eastbound Exit Ramp Ground Anchor Wall Limits	\$155,400.00

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

27	Reduced Speed Limit Requirements	\$260,000.00
28	Additional Toll Rate Dynamic Message Signs	\$290,900.00
29	Revised Maintenance Requirements for Specific Auxiliary Lanes	\$0.00
30	Right of Way and Utility Design Revisions	\$719,277.00
30 S-1	Utility Revisions near Monte Vista Avenue	\$617,905.00
31	Additional Design Revisions for Right-of-Way Changes	\$25,767.00
32	Clearing of the TCE and Pool Mitigation Work	\$30,380.00
33	Rock Curb Extension at Euclid Avenue	\$77,892.00
34	7th Street and 2nd Avenue Sidewalk Improvements	\$79,732.00
Jan 2021	BOD approves revised funding plan with contingency reduction	(21,400,000)
35	Revised TCS CCTV Camera System	\$76,517.00
37	Partnering Facilitator Payment	\$50,000.00
38	Emergency Property Fence Fix	\$1,631.00
39	I-10/I-15 North to West Connector – 55-hour Closure	\$0.00
40	55-Hour Closure, Storm And Deck Drains	\$730,000.00
41	Recessed Pavement Markers	\$6,384.00
42	Telecommunication Conduits/ROW Support	\$111,843.48
CCO TOTAL		3,577,393.48
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$51,369,000.00

Toll Service Provider – Executed Change Orders		
Number	Description	Amount
1	Establish Dispute Review Board	\$75,000.00
2	Partnering	\$0.00
3	Right of Way (ROW) Revisions	\$0.00
4	Revised NTP 2 Start Date	\$0.00
6	Revised Enforcement Beacon Specifications	(\$1,952.00)
7	Added TRDMS to Two On-Ramps	\$193,850.00
CCO TOTAL		\$266,898.00
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$1,855,000.00

US 395 Phase 1 Widening Project – Executed Change Orders		
Number	Description	Amount
1	Maintain Public Traffic	\$100,000.00
2	Storm Water Shared Costs	\$25,000.00
3	Partnering	\$20,000.00
4	Establish Dispute Resolution Advisor	\$20,000.00
5	Cleaning of Drainage Systems	\$30,000.00
6	Buried Man-Made Objects	\$15,000.00
7	Maintain Existing Temporary Electrical Systems	\$15,000.00
7 S-1	Additional Funds	\$85,000.00
8	Maintain Temporary Tortoise Fence	\$15,000.00
9	Revised Temporary HMA Requirements	(\$11,000.00)
10	Revised Temporary HMA Specifications	(\$3,180.00)
11	Additional Earthwork	\$35,905.00
12	Protect Existing Drainage Systems	\$70,000.00

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

13	Added Saw Cut to coordinate with Kinder Morgan work	\$24,304.00
14	Provide Access to A Local Business	\$11,800.00
15	Quantity Increases; Bid Items 21, 26 & 83	\$78,780.00
15 S-1	Revised Bid Item Quantities	\$356,374.49
15 S-2	Revised Bid Item Quantities	\$34,801.30
16	Drainage System 14 Modifications	\$10,270.00
17	Removal of 31 Concrete Headwalls and Wingwalls	\$52,583.75
18	Drainage System 7 Modifications	\$31,356.00
19	Adjust Manholes to Grade	\$10,000.00
19 S-1	Additional Funds	\$5,000.00
20	Additional HMA Paving for Revised Staging	\$127,670.90
21	Modified Drainage System Opening on Retaining Wall 794	\$4,103.35
22	Revisions at North of Mojave Drive Intersection	\$150,000.00
22 S-1	Revisions at North of Mojave Drive Intersection	\$150,000.00
23	Revised Pile Cap Concrete Requirement for Sound Wall 875	\$217,665.25
25	Added curb on the Southeast Corner of Air Base Road	\$2,040.00
26	Electrical Design Changes at the Air Base Road Intersection	\$43,363.00
27	Added Hydroseed	\$35,324.00
28	Added MGS per Safety Commission	\$50,000.00
29	Additional Pavement Markings and Striping	\$50,000.00
29 S-1	Additional Funds	\$7,000.00
30	Revised Joshua Wash Bridge Wingwalls	\$50,000.00
31	Payment Adjustment for Gravel Bag Quantities	\$40,138.32
32	Additional Safety Commission Revisions	\$45,000.00
33	Installation and Testing of Additional Electronic Ball Markers	\$8,569.95
34	Stage 4 Temporary Striping	\$73,706.00
35	Seneca Interchange Revisions	\$108,331.64
CCO TOTAL		\$2,194,906.95
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$8,741,611.75

Monte Vista Grade Separation – Executed Change Orders		
Number	Description	Amount
1	Establish Dispute Resolution Board	\$15,000.00
1 S-1	Revise Special Provision Language	\$0.00
1 S-2	Additional Funds	\$10,000.00
2	Partnering Workshop	\$15,000.00
3	Traffic Control	\$10,000.00
3 S-1	Additional Funds	\$10,000.00
4	Federal Training Program	\$12,000.00
5	Post-Tensioning Duct Size Change	\$0.00
7	Storm Water Shared Costs	\$50,000.00
8	Relocate 8" Water Line	\$8,000.00
8 S-1	Additional Funds	\$10,386.03
9	Drainage System for Adjacent Property	\$14,925.00

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

10	Masonry Block Change	\$0.00
11	Sewer Lateral Piping Size Change	\$6,013.00
12	Future Electrical Conduits for Montclair	\$39,385.00
13	Change in Phasing of Work	\$0.00
14	Precast Girder Reinforcement Change	\$0.00
15	Change in Phasing of Work	\$0.00
16	Water Line Modifications	\$8,790.00
16 S-1	TRO Payment for Delays Related to CCO No. 16	\$124,800.00
16 S-2	Additional Funds	\$54,689.60
17	Modify Overhead Signs and Install Pedestrian Barricades	\$6,765.97
21	Additional Sewer Service Lateral Connections	\$10,850.00
22	Girder Reinforcement Splicing Option	\$0.00
23	Deleting Sidewalk	(\$12,540.00)
25	HMA Along Private Access Road	\$16,000.00
26	Temporary Embankment for SCE	\$15,000.00
27	Temporary Shoring for SCE	\$60,00.00
28	Modify Water Line in Conflict with SCE	\$10,000.00
29	Storm Drain Lateral Realignment	\$14,110.00
31	Driveway for Future Development	\$3,187.80
32	Potholing/Locating AT&T & Level 3 Utilities	\$60,000.00
33	Deduction for Rejected Piles	(\$10,000.00)
34	Modified Quantities Due to the Field Conditions	\$29,257.95
34 S-1	Modified Quantities Due to the Field Conditions	\$105,453.57
34 S-2	Modified Quantities Due to the Field Conditions	\$9,450.00
35	Conduit for SCE Service Connection for Traffic Signal System	\$8,000.00
36	Additional MSE Wall Drainage	\$8,000.00
37	Water Supply Modifications	\$15,000.00
38	Seal Coat Specification Change	(\$2,000.00)
39	Removal of UPRR Sign Foundations	\$5,000.00
41	Resolution of NOPC No. 3	(\$59,986.00)
42	Revised Canopy at Taxi Yard	\$0.00
43	Landscaping Revisions	\$11,286.00
44	Added Headwall and Retaining Curb	\$10,000.00
45	Drainage Inlet Repair Damaged by Public	\$7,500.00
45 S-1	Additional Funds	\$381.43
46	Project Substantial Completion	\$0.00
47	Wire Mesh Substitution	\$15,000.00
48	Fence and Gate Revisions	\$52,336.60
49	Monument Modifications	\$6,500.00
49 S-1	Additional Monument Modifications	\$46,000.00
52	Additional work required by UPRR	\$10,577.00
53	Additional Erosion Control	\$16,000.00
54	Fence Repairs Damaged by Public	\$13,184.00

Attachment: CCO Log (8050 : Construction Contract Change Orders MVSS2111)

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

CCO TOTAL	\$815,302.95
TOTAL CONTINGENCY AND SUPPLEMENTAL	\$2,498,958.60

Mount Vernon Avenue Viaduct Design-Build Project – Executed Change Orders		
Number	Description	Amount
1	Added Perimeter Fence, K-rail and Signage	\$21,500.00
1 S-1	Install/Maintain Temporary Fence	\$28,670.86
2	Partnering	\$100,000.00
3	Temporary Crossing	\$700,000.00
3 S-1	Additional Funds	\$225,000.00
3 S-2	Construct Railroad Temporary Construction Crossing	\$13,889.15
3 S-3	Temporary Railroad Crossing	\$27,744.36
5	Asbestos Removal	\$100,000.00
5 S-1	Additional Funds	\$954,863.00
5 S-2	Asbestos Coating Abatement	\$429,723.86
5 S-3	Bridge Demolition Engineer – Increase Time	\$67,977.25
5 S-4	Asbestos Coating Abatement	\$159,481.26
7	Add Fire Hydrants	\$112,200.00
8	Test Unforeseen Buried Man-made object	\$1,341.55
9	Decommission/Abandon Water and Sewer Lines	\$203,852.65
10	Added Utilities Work at Kingman Street	\$377,389.28
12	Increase Contractor Overhead – Increase Time	\$208,232.35
CCO TOTAL		\$ 3,731,865.57
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$17,230,000.00

I-10 University Street Improvement Project – Executed Change Orders		
Number	Description	Amount
1	Time Extension (Delay Start)	\$0.00
2	Maintain Traffic	\$10,000.00
CCO TOTAL		\$ 10,000.00
TOTAL CONTINGENCY AND SUPPLEMENTAL		\$830,590

Attachment: CCO Log (8050 : Construction Contract Change Orders MVSS2111)

Bolded - Construction Change Orders approved since the last reporting to the Metro Valley Study Session
Amounts shown in parentheses represent a credit to the Agency

Minute Action

AGENDA ITEM: 3

Date: November 10, 2021

Subject:

Revision to Landscape Policy No. 34502

Recommendation:

That the following be reviewed and recommended for final approval by the Board of Directors (Board), acting as the San Bernardino County Transportation Authority, at a regularly scheduled Board meeting:

Approve revisions to Policy No. 34502 to remove obsolete terms and funding sources, and to include landscaping terms in alignment with the Board's objectives.

Background:

Policy No. 34502, Measure I Major Projects Program, Landscape, was adopted by the Board of Directors (Board) on March 1, 1995, and revised on January 4, 2017, to update the agency name from San Bernardino Associated Governments to San Bernardino County Transportation Authority (SBCTA), consistent with Senate Bill 1305. The current version includes definitions, cost per acre, and funding sources that are obsolete. The proposed revisions include landscaping design factors discussed by the Board and is intended to foster long-lasting landscaping elements and preserve the investment made by SBCTA and member agencies.

The State Route (SR) 210 landscaping west of Sierra Way, except the Pepper Avenue interchange, was completed and turned over to the California Department of Transportation (Caltrans) for maintenance by 2015. The landscaping on SR 210 east of Sierra Way was either in plant establishment or in the extended landscaping maintenance phase. SBCTA successfully planted and completed its extended maintenance on SR 210 and turned over the planted inventory to Caltrans. Unfortunately, a long-lasting drought combined with increased plant inventory, and established Caltrans maintenance resources, led to degradation of SBCTA's landscaping investment on the State Highway System. Consequently, new landscaping projects in the planning stage utilized high efficiency irrigation systems, drought-tolerant plant material, hardscape, and inert ground covering materials.

On April 1, 2015, Governor Jerry Brown issued an Executive Order to mandate a 25% water use reduction across the state in response to the worst drought in California's recorded history. In response, Caltrans asked SBCTA to postpone its Interstate 215 (I-215) Corridor Landscaping Project until the Executive Order was released. To preserve its investment, the Board approved a landscape approach at the September 2015 Board meeting. The approach includes the development of plans that include a greater amount of hardscape and inert materials, drought-tolerant and low maintenance plants, drip irrigation for plants, and bubblers for trees along with smart controllers to optimize water usage. The inert ground cover would include mulch, rock blanket, various sizes and colors of gravel, and large boulders. A one-year plant establishment will be followed by four years of extended landscape maintenance.

At the January 2017 Board meeting, a landscaping concept by Caltrans for the I-215 between Orange Show Road and 5th Street in the City of San Bernardino, was approved with the above-noted landscaping elements. This landscaping concept has since been incorporated throughout
Entity: San Bernardino County Transportation Authority

Board of Directors Metro Valley Study Session Agenda Item

November 10, 2021

Page 2

the corridor and on some full interchange projects on I-10 and I-15. Staff has analyzed the overall costs and determined that depending on the types of inert material, the costs may be equal or slightly higher than plantings; however, the maintenance cost is lower, overall making this concept of highway planting either equal in cost or more cost-effective.

In July 2021, Governor Gavin Newsom signed the Executive Order calling on all Californians to voluntarily reduce their water use by 15% compared to 2020 levels, through simple actions such as reducing landscape irrigation and other measures. In part, the purpose of this order is to protect water reserves should drought conditions continue. Due to continued droughts, an imbalance between added highway planting inventory, and static Caltrans maintenance resources, staff has updated Policy No. 34502 to delete obsolete terms and funding sources, and to include landscaping terms in alignment with the Board objective of providing long-term beautification on SBCTA's projects and preservation of SBCTA's landscaping investments.

Financial Impact:

This item is consistent with the Fiscal Year 2021/2022 Budget.

Reviewed By:

This item is not scheduled for review by any other policy committee or technical advisory committee.

Responsible Staff:

Paula Beauchamp, Director of Project Delivery and Toll Operations

Approved
Board of Directors Metro Valley Study Session
Date: November 10, 2021

Witnessed By:

San Bernardino County Transportation Authority

San Bernardino County Transportation Authority	Policy	34502
Adopted by the Board of Directors	March 1, 1995	Revised
Measure I Major Projects Program, Landscape		Revision No.
		2

Important Notice: A hardcopy of this document may not be the document currently in effect. The current version is always the version on the SBCTA Intranet.

Table of Contents

[| Purpose](#) | [Definitions](#) | [Policy](#) | [Revision History](#) |

I. PURPOSE

SBCTA delivers a variety of transportation projects both on the State Highway System and/or within local jurisdiction(s) some of which contain landscaping elements. The purpose of this policy is to formally establish guidance pertaining to project landscaping design, plant establishment, and maintenance, through project development.

II. POLICY

There are several Caltrans and Local Agency policies, procedures, and guidance governing landscaping practices on or near the State Highway System. In addition various environmental measures or regulatory permits may include requirements that affect the landscape design and must be implemented. During the course of project development local agency staff will be invited to provide input and participate in the discussion of landscape design. The criteria for landscaping design varies depending on the entity who is responsible for long term maintenance and regulatory permit requirements, if any.

For projects to be constructed by SBCTA and maintained long-term by Caltrans or a local agency the design requirements are as follows:

- Maximize hardscape over plantings.
- Incorporate drought tolerant plants and plants that require low water usage and minimal maintenance.
- Use concentrated irrigation systems that minimize the propagation of weeds and conserve water.
- Consider recycled water usage if available.
- Provide one year of plant establishment followed immediately by 4 years of extended maintenance, or as identified in an agreement.
- Through the environmental phase the environmental document should align with the above criteria and address replacement planting, if possible. Jointly agreed upon environmental commitments related to landscaping design may be included in the Environmental Commitment Record.
- Through the design Caltrans maintenance staff should be involved to provide input regarding its ability to safely access and routinely maintain the number and type of plants included in landscaping plan after the project is turned over from SBCTA to Caltrans for maintenance.
- Work collaboratively with Caltrans and local agencies, if requested, to develop corridor master plans to incorporate the above design requirements.
- Set landscape design elements to phase in drought tolerant plants and vegetation control to meet long term water conservation goals.

- For projects or portions of projects which will be maintained by a local agency and on the state right of way, the local agency staff will be invited to provide input and participate in the discussion of landscape design. In addition, if the local agency requests that additional planting or landscaping elements are included within the state right of way, it must enter into a Landscape Maintenance Agreement with Caltrans during the design phase of the project. In addition the local agency must enter into a cooperative agreement with SBCTA to address any cost implications of their request including, but not limited to: additional landscaping costs, water connections and water costs, plant establishment, and maintenance. SBCTA staff can facilitate these discussions. Without an executed Landscaping Maintenance Agreement and cooperative agreement with SBCTA the landscaping design will meet the above noted requirements.
- For projects which are on the local agency right of way and to be maintained by the local agency, the local agency staff will be invited to provide input and participate in the discussion of landscape design. The design may meet the above noted requirements and include six months of plant establishment, unless the local agency declines. If landscaping design requests from the local agency exceed these requirements then the local agency will enter into a cooperative agreement during the design phase to address its responsibility for payment for costs including, but not limited to: additional landscaping costs, water connections and water supply, plant establishment, and maintenance.

Adopted by Board of Directors: March 1, 1995

REVISION HISTORY

Revision No.	Revisions	Adopted
0	Adopted.	03/01/95
1	Revised to be consistent with SB1305. Change approved by the Board on January 4, 2017, Agenda Item 6.	01/04/17
2	Revised to remove obsolete or non-applicable terms and incorporating Board direction regarding landscaping design.	12/01/21

San Bernardino County Transportation Authority	Policy	34502
Adopted by the Board of Directors	March 1, 1995	Revised 012/041/217
Measure I Major Projects Program, Landscape	Revision No.	24

Important Notice: A hardcopy of this document may not be the document currently in effect. The current version is always the version on the SBCTA Intranet.

Table of Contents

[| Purpose](#) | [Definitions](#) | [Policy](#) | [Revision History](#) |

I. PURPOSE

The Measure I Ordinance provides that seven major freeway improvements are to be implemented through the use of the new sales tax revenues. In provisions for the Major Project Program, the ordinance is silent regarding landscaping. SBCTA delivers a variety of transportation projects both on the State Highway System and/or within local jurisdiction(s) some of which contain landscaping elements. Project scopes are discussed in only the most general terms, e.g., "construct six lane freeway" or "widen one lane each direction." In the development of each project, however, a large number of very specific decisions must be made affecting scope, all of which have an impact on cost. Among these is the extent of landscaping to be provided with each project. Practical and political realities dictate that a measure of landscape support be provided in the Major Project Program. Due to the absolute necessity of resisting further cost increases, however, staff have maintained that only minimal landscaping can be provided. The purpose of this policy is to formally establish guidance pertaining to project SBCTA's position relative to landscaping design, plant establishment, and maintenance, and to provide additional specificity to guide staff in the course of through project development activity.

II. DEFINITIONS

Warranted Planting: Planting for the purpose of re-vegetation, erosion control and/or other functional requirement; standard highway planting on new highway projects where adjacent properties are developed at the time the roadway construction contract is accepted; and standard highway planting on existing highways where adjacent properties were developed on or before June 30, 1987.

Standard Highway Planting: The level of functional and/or landscape planting required to make the right of way compatible with the surrounding environment up to a maximum of \$21,500 per acre (January, 1990 base).

III. POLICY

There are several Caltrans and Local Agency policies, and procedures, and guidance governing landscaping practices on or near the State Highway System. In addition various **environmental measures** or regulatory permits may include requirements that affect the landscape design and must be implemented. During the course of project development local agency staff will be invited to provide input and participate in the discussion of landscape design. The criteria for landscaping design varies depending on the entity who is responsible for long term maintenance and regulatory permit requirements, if any.

For projects to be constructed by SBCTA and maintained long-term by Caltrans or a local agency the design requirements are as follows:

that impinge on local agency actions regarding landscaping, the key points of which are summarized below:

- ~~Unless required as a mitigation in an approved environmental document, there is no local agency responsibility to provide landscaping on new facilities. Maximize hardscape over plantings.~~
 - ~~Incorporate drought tolerant plants and plants that require low water usage and minimal maintenance.~~
 - ~~Use concentrated irrigation systems that minimize the propagation of weeds and conserve water.~~
 - ~~Consider recycled water usage if available.~~
 - ~~Provide one year of plant establishment followed immediately by 4 years of extended maintenance, or as identified in an agreement.~~
 - ~~Through the environmental phase the environmental document should align with the above criteria and address replacement planting, if possible. Jointly agreed upon environmental commitments related to landscaping design may be included in the Environmental Commitment Record.~~
 - ~~Through the design Caltrans maintenance staff should be involved to provide input regarding its ability to safely access and routinely maintain the number and type of plants included in landscaping plan after the project is turned over from SBCTA to Caltrans for maintenance.~~
 - ~~Work collaboratively with Caltrans and local agencies, if requested, to develop corridor master plans to incorporate the above design requirements.~~
 - ~~Set landscape design elements to phase in drought tolerant plants and vegetation control to meet long term water conservation goals.~~
-
- ~~On retrofit construction by a local agency that destroys existing planting, the only requirement for the local agency is a moral one.~~
~~If the local agency does not provide landscaping, Caltrans will eventually provide "standard highway planting (\$21,500 per/acre)." Caltrans' goal is that landscaping be provided within two years, although attainment of that goal may be constrained by funding considerations.~~
 - ~~For projects or portions of projects which will be maintained by a local agency and on the state right of way, the local agency staff will be invited to provide input and participate in the discussion of landscape design. In addition, if the local agency requests that additional planting or landscaping elements are included within the state right of way, it must enter into a Landscape Maintenance Agreement with Caltrans during the design phase of the project. In addition the local agency must enter into a cooperative agreement with SBCTA to address any cost implications of their request including, but not limited to: additional landscaping costs, water connections and water costs, plant establishment, and maintenance. SBCTA staff can facilitate these discussions. Without an executed Landscaping Maintenance Agreement and cooperative agreement with SBCTA the landscaping design will meet the above noted requirements.~~
 - ~~For projects which are on the local agency right of way and to be maintained by the local agency, the local agency staff will be invited to provide input and participate in the discussion of landscape design. The design may meet the above noted requirements and include six months of plant establishment, unless the local agency declines. If landscaping design requests from the local agency exceed these requirements then the local agency will enter into a cooperative agreement during the design phase to address its responsibility for payment for costs including, but not limited to: additional landscaping costs, water connections and water supply, plant establishment, and maintenance. When others provide warranted, standard planting, they must provide four years of plant establishment, including all utility costs; in this situation, Caltrans will provide maintenance.~~

- When others provide unwarranted planting (i.e., planting in unwarranted areas), or planting in excess of standard highway planting, they must provide the four year plant establishment period plus twenty years of maintenance. [Note: Caltrans has estimated that the cost of three years of maintenance equals the initial capital cost to install the landscaping.]

The following policies are to be used by SBCTA in managing the development of the Measure I Major Projects landscaping:

- As appropriate, provide financial and staff support for the preparation of landscape master plans for each Major Project;
- As appropriate, provide financial support for the preparation of ISTE A TEA and other grant applications, such as AB 471;
 - provide the 3 year plant establishment period for ISTE A TEA grants for warranted, standard highway planting only if necessary to improve the application;
 - establishment and maintenance for unwarranted planting or planting that exceeds standard highway planting must be provided by others.
- If grants are not received or not available, support Caltrans programming of landscaping for Measure I Major Projects;
 - support development of landscape projects that are consistent with locally supported master plans;
 - support participation with Caltrans in funding landscape projects to accelerate implementation;
 - support staff efforts to negotiate an agreement with Caltrans that does not require SBCTA to participate in plant establishment or maintenance for STIP programmed landscaping.
- To the extent possible, restrict Measure I financial support for landscaping to a maximum of \$21,500 per landscaped acre. Negotiate with Caltrans to minimize or avoid all other associated costs, including establishment, maintenance, and engineering.

Adopted by Board of Directors: March 1, 1995

REVISION HISTORY

Revision No.	Revisions	Adopted
0	Adopted.	03/01/95
1	Revised to be consistent with SB1305. Change approved by the Board on January 4, 2017, Agenda Item 6.	01/04/17
2	<u>Revised to remove obsolete or non-applicable terms and incorporating Board direction regarding landscaping design.</u>	<u>12/01/21</u>

Minute Action

AGENDA ITEM: 4

Date: November 10, 2021

Subject:

Request for Proposals for Final Design Services for Interstate 10 Corridor Freight and Express Lane Project - Contract 2

Recommendation:

That the following be reviewed and recommended for final approval by the Board of Directors, acting as the San Bernardino County Transportation Authority, at a regularly scheduled Board meeting:

Authorize the release of Request for Proposals No. 22-1002722 for preparation of Plans, Specifications, and Estimates for the Interstate 10 Corridor Freight and Express Lane Project - Contract 2.

Background:

San Bernardino County Transportation Authority (SBCTA) requests approval for the release of a Request for Proposals (RFP) for Plans, Specifications and Estimates (PS&E) services on the Interstate 10 (I-10) Corridor Freight and Express Lane Project - Contract 2 (Project). This Project would provide one express lane in each direction in the median of I-10 from Interstate 15 (I-15) to Pepper Avenue, in the City of Colton.

A Project Study Report/Project Development Study (PSR/PDS) was completed for the I-10 Corridor Project in 2014, and the Project Approval and Environmental Document (PA/ED) for adding one to two express lanes from the Los Angeles/San Bernardino County line to Ford Street in the City of Redlands, was approved in May 2017. The first ten miles of the Project are currently under construction as Contract 1, and are scheduled to open in 2023. In 2018, traffic and revenue studies as well as cash flow analyses for the I-10 and I-15 corridors were undertaken to determine the next steps for both corridors, with the results indicating that further phasing on both I-10 and I-15 would be required. Recently developed cost updates in 2021 confirmed the need for phasing, and on October 6, 2021, the SBCTA Board of Directors (Board) directed staff to explore a single express lane strategy for the next segment on the I-10 Corridor Project to be consistent with the State's Guideline Principles for Transportation Investment. The next project on I-10 is delineated as I-10 Corridor Freight and Express Lane Project - Contract 2, and would construct the next 11 miles of the approved I-10 Corridor Project.

Based on funding projections, and to minimize concurrent public impacts, it was determined to target the start of construction for the Project in 2026 as the I-10 Corridor Contract 1 Project will near completion in mid-2026. As a result, there is sufficient time to complete final design and right-of-way (ROW) clearance on this Project before going out to bid. As such, the Project will be delivered as a design-bid-build project.

The scope of this RFP is to provide the final design for adding generally one express lane in the median, including the associated toll infrastructure. The Project will include both the design of pavement, structure widenings, auxiliary lanes, and minor ramp improvements, as well as toll gantries, signage, striping, and other improvements required for implementing the tolling
Entity: San Bernardino County Transportation Authority

Board of Directors Metro Valley Study Session Agenda Item

November 10, 2021

Page 2

systems on the added express lanes. The Project will require coordination with the SBCTA Toll System Provider relative to the incorporation of the toll collection system. The scope of services will also include ROW engineering services which will consist primarily of coordination with a ROW consultant for preparing needed mapping and exhibits for acquisitions, railroad agreements, and utility relocations. It is anticipated that the design work will take about three years to complete, resulting in a final design package to advertise for construction in mid-2025.

Staff recommends the release of this RFP to maintain the Project delivery schedule with the plan to bring a design contract based on this RFP to the Board for approval in mid-2022.

Financial Impact:

This item is consistent with the Fiscal Year 2021/2022 Budget for Task No. 0820 Freeway Projects, Sub-Task No. 0821 I-10 Corridor Project - Contract 2.

Reviewed By:

This item is not scheduled for review by any other policy committee or technical advisory committee. SBCTA General Counsel, Procurement Manager and Risk Manager have reviewed this item and the draft RFP.

Responsible Staff:

Sal Chavez, Project Delivery Manager

Approved
Board of Directors Metro Valley Study Session
Date: November 10, 2021

Witnessed By:

San Bernardino County Transportation Authority

ATTACHMENT A - SCOPE OF WORK

RFP No. 22-1002722

The San Bernardino County Transportation Authority ("SBCTA") is seeking professional services for the preparation of Plans, Specifications and Estimate (PS&E) for the Interstate 10 (I-10) Corridor Freight and Express Lane Project - Contract 2 ("Project") which would extend from Interstate 15 (I-15) to Pepper Avenue in San Bernardino County. SBCTA Sales Tax Measure I funds and federal funds will be used to cover the cost of the preparation of the final design phase. Funding for the next phases are currently not finalized, but state and/or federal funds could be utilized. As such, the final plans and specifications should comply with applicable state and federal requirements.

The project proposes to add generally one express lane in the median in each direction through this corridor segment. At I-15, one express lane will be added in each direction, connecting to the existing express lane in each direction currently being constructed by SBCTA. The express lane will continue to Pepper Avenue, then transition back to the existing general purpose lanes at Pepper Avenue. In addition, auxiliary lanes and other operational improvements are planned through this corridor. The environmental document and project report for an extended corridor were approved in May, 2017. The geometrics approved in those documents will provide the initial basis for this final design, but the final lane configuration and location of ingress and egress locations shall be based on operational analysis conducted under this design contract. Importantly, the Contract 2 project will only construct one of the two express lanes approved during PA/ED for this segment. Final design for the single express lane should minimize impact to ROW including the I-10 drainage channel while incorporating provisions for a future second express lane where practical. Additionally, final design shall include the addition of auxiliary lanes at select locations not previously included in the PA/ED design, including eastbound between Cherry Avenue and Citrus Avenue and between Sierra Avenue and Cedar Avenue. This project will include both the roadway work as well as toll collection system layout and infrastructure. The toll collection system design requirements will be prepared by the SBCTA toll system provider (TSP); however, extensive coordination will be required with the TSP, and the toll collection system infrastructure design will need to be incorporated into the final design plans developed under this design contract.

Final design services will include preparation of a supplemental project report and environmental revalidation to document that this work is the second construction package as part of the longer corridor approved in the original project report and environmental document.

Caltrans will provide oversight for compliance with State design standards and requirements. Assistance with the preparation of the construction bid advertisement package, support during right of way, responses to Requests for Information (RFI), and review of construction Contract Change Orders (CCO) during the construction phase is required. Coordination with the designer of the Project Approval and Environmental Document Phase (PA/ED) may be required to obtain project files and latest project design information.

I. APPLICABLE STANDARDS

All documents shall be prepared in accordance with current SBCTA and Caltrans regulations, policies, procedures, manuals, and standards where applicable. CONSULTANT shall obtain, at its expense, all applicable Manuals and Standard Plans.

II. GENERAL DESCRIPTION OF REQUIRED SERVICES

- A. Required services listed below do not supersede the requirements established in the Contract.
- B. CONSULTANT Services include the studies, reports, drawings, plans, specifications, estimates, and special provisions necessary to complete the plans, specifications, and estimates for the addition of express lanes on the I-10 corridor.
- C. The deliverables list for the PS&E phase will be refined during the initial planning and scoping Project Development Team (PDT) meeting. Not all deliverables listed in this attachment may be required.
- D. CONSULTANT shall develop and maintain a Project schedule. The Project schedule may be presented monthly to the PDT meeting. A deliverables matrix will accompany the schedule. The deliverables matrix will highlight the status of the documents in the review process.
- E. CONSULTANT shall employ appropriate quality control and quality assurance procedures for every deliverable.
- F. CONSULTANT shall identify potential risks and uncertainties related to the delivery and construction of the Project. Risks that may be encountered include, but are not limited to, soil conditions, constructability, factors of safety, impacts to adjacent properties, public safety, and environmental considerations. If at any time during the performance of this Scope of Services, CONSULTANT observes, encounters, or identifies any circumstance that could pose potential risk, CONSULTANT shall notify SBCTA immediately.
- G. The design will be prepared in English units.
- H. Prime contract terms and conditions will be incorporated into the subcontract agreements.
- I. The Task and WBS Structure used for pricing, cost reporting and schedule preparation shall be consistent with the Caltrans Workplan Standards Guide for Delivery of Capital Projects. Project Management activities will be performed in accordance to the Caltrans' Workplan Standards Guide for Delivery of Capital Projects.

- J. CONSULTANT shall prepare and submit monthly invoices and project controls reports. Invoices shall follow SBCTA templates and shall contain all required information including project percent complete and earned value. CONSULTANT shall manage the contract budget and shall provide a monthly report including Earned Value and Estimate at Completion.
- K. Project plans and specifications must comply with the federal Americans with Disabilities Act (ADA) requirements 28 CFR, Part 35, and the *California and Local Building Codes* within the project limits. In accordance with 28 CFR Sec. 35.151, curbs and ramps must meet current ADA standards if the project includes streets that are to be newly constructed or altered (includes repaving). For ADA requirements, see Chapter 11 "Design Standards," and Section 12.7 of this chapter. Complete the Caltrans Certification of Compliance with Americans with Disabilities Act (ADA) Form.
- L. The final engineering technical reports must bear the signature, stamp or seal, registration number, and registration certificate expiration date of the registered civil engineer most directly in responsible charge or other registered or certified professional working on the report as specified in Section 9 of the Project Development Procedures Manual.
- M. CONSULTANT is responsible for the overall toll system design. Design shall be coordinated with the SBCTA Toll Service Provider (TSP) to ensure its requirements for installing, operating, and maintaining the toll collection system are fully incorporated into the design submittals. This shall require coordination meetings with TSP in the development, review and approval of the design submissions. TSP to provide infrastructure requirements documentation to assist CONSULTANT in developing the power, communications, pads, conduit, gantry structures and poles requirements for this project. The TSP will be responsible for maintaining and operating its toll collection system, so all measures shall be taken to ensure these activities can be performed safely in the design.
- N. CONSULTANT is responsible for determining the final lane configuration, location of ingress and egress points, and express lane transitions at the west and east end of the I-10 express lanes. Final design shall be coordinated with project stakeholders including SBCTA, Caltrans, and FHWA, and shall include operational analysis where appropriate and may include alternative analysis and cost estimates for these alternatives.

III. ASSUMPTIONS

- A. There may be up to eight meetings per month (including conference calls) during the duration of this contract, including one mandatory monthly PDT meeting.
- B. CONSULTANT will coordinate with SBCTA, TSP and Caltrans prior to distribution of all deliverables to determine the points of contact, number of hardcopies and format of electronic files.

- C. Assume one SBCTA and TSP peer review and two Caltrans reviews for each major deliverable and a workshop for comment resolution, if required.
- D. Assume there may be two or more contract bid packages, final estimates and final reports. SBCTA may choose to package this work in multiple packages, such as early bridge work, or split out the civil and toll systems work.

IV. SCOPE OF SERVICES

Following the selection of a consultant, the selected firm shall prepare and submit a Cost Proposal and Project Schedule. The selected firm shall use the latest SBCTA Work Breakdown Structure (WBS), which follows the Caltrans Workplan Standards Guide for Delivery of Capital Projects, and cost and schedule templates for the preparation of the cost proposal and schedule.

TASK 3.100.15 - PROJECT MANAGEMENT

3.100.15 Project Management

CONSULTANT shall furnish a Project Manager to coordinate all CONSULTANT operations with SBCTA, including but not limited to, tracking progress of the work and administering subcontracts. CONSULTANT Project Manager shall provide overall project management, coordination, and supervision of project staff to facilitate the performance of the work in accordance with standards and requirements of the SBCTA and other applicable standards and requirements. CONSULTANT Project Manager shall prepare and submit monthly project progress reports to SBCTA Project Manager.

Deliverables:

- *Monthly Progress Reports*

3.100.15-1 Coordination and Meetings

CONSULTANT Project Manager shall conduct regular meetings with SBCTA, and shall conduct meetings and coordination with other stakeholders, including Caltrans and other agencies in monthly PDT meetings or technical workshops and focused meetings as necessary. CONSULTANT Project Manager will be responsible for preparation of agendas and meeting minutes, communication and distribution of project records and information, and responses to all internal requests for information about the project.

Deliverables:

- *PDT meeting notices, agendas, handouts/exhibits, deliverable matrix, and minutes.*

3.100.15-2 Administration

CONSULTANT Project Manager shall prepare and update the Project schedule on a monthly basis or as needed. Project schedule shall be logical, complete, and shall consider SBCTA peer reviews. CONSULTANT Project Manager shall provide regular reporting on the project status, including, but not limited to, schedule, contract budget, general progress on project tasks, and project issues and concerns. CONSULTANT

Project Manager shall maintain project files using the Caltrans Uniform System in hard copies and electronic format.

CONSULTANT Project Manager shall prepare and implement a Project Specific Quality Control/Quality Assurance (QA/QC) Plan in conformance with Section V and a Risk Management Plan following SBCTA format and content requirements; CONSULTANT Project Manager will be responsible for adherence to all applicable SBCTA administrative policies and procedures.

Deliverables:

- *Project Schedules*
- *Project Master Files*
- *QA/QC Plan and Risk Management Plan*

TASK 3.180 – PREPARE ENVIRONMENTAL REVALIDATION AND SUPPLEMENTAL PROJECT REPORT

CONSULTANT shall develop design for generally one express lane compared to the two express lanes approved during PA/ED, avoiding impact to ROW to the extent practical. CONSULTANT shall develop eastern logical termini for the project in the vicinity of Pepper Avenue. CONSULTANT shall also coordinate the western connection of the SBCTA express lanes with Contract 1, which may include revisions to the number of lanes and location of ingress and egress points based on operational analysis. CONSULTANT shall develop design for auxiliary lanes at selection locations including from Cherry Avenue to Citrus Avenue and from Sierra Avenue to Cedar Avenue. Based on these geometrics, an environmental revalidation and supplemental project report shall be prepared to document the construction sequencing proposed for this project.

Deliverables:

- *Revised **Geometric Approval Drawings***
- *Environmental Revalidation*
- *Supplemental Project Report*

TASK 3.185 – PREPARE BASE MAPS AND PLAN SHEETS

Task 3.185.05 Updated Project Information

CONSULTANT shall request, collect, assemble, and review all pertinent project information, including, but not limited to, prior project related reports and Engineering Technical Reports, Environmental Documents and Environmental Technical Reports, CAD files and drawings, and relevant correspondence. CONSULTANT shall incorporate the collected materials and information into the Project Master File.

Deliverables:

- *Project Records Files*

Task 3.185.10 Engineering and Photogrammetric Surveys

Mapping and Surveys and preparation of Base Maps were performed during the PA/ED phase. CONSULTANT shall review Project Mapping and Project Survey Control prepared to ensure completeness and accuracy. CONSULTANT shall inform SBCTA's Project Manager if there are incomplete or missing data in the Design Base Maps.

TASK 3.205 – PERMITS & AGREEMENTS

Task 3.205.05 Determine Required Permits & Task 3.205.10 Obtain Permits

CONSULTANT shall perform work to identify all necessary permits to construct the project and obtain all necessary permits and agreements needed to construct the project. Work as part of this task may include discussions with permitting agencies, preparation of the permit and attachments such as maps and other exhibits identifying funds necessary for the permit application, and submitting the permit. Discussions and negotiations with permitting agencies shall only be performed in consultation with the SBCTA Project Manager or designee.

Deliverables:

- *Various Permits*

TASK 3.220-PERFORM RIGHT OF WAY ENGINEERING

Task 3.220.05 and 220.10 Existing Land Net and Preparation of Land Net Map

CONSULTANT shall collect all record data and field evidence required to begin development of the Right of Way Base Map. Perform research to locate all relevant survey and land ownership records to complete existing land-net survey, boundary analysis, determination and delineation. CONSULTANT shall prepare land net survey as required for easements, and monumentations for perpetuation of record of survey.

Deliverables:

- *Land Net Map*

Task 3.220.15 and 220.20 Right of Way Maps and Acquisition Documents

CONSULTANT shall prepare right of way appraisal maps and other maps and exhibits as needed to support right of way acquisition including deeds, legal descriptions, resolution of necessity legal descriptions, and other documents and exhibits as needed to support the acquisition of required property interests from property owners, utilities, railroads, and other agencies as required.

Deliverables:

- *Right of way requirement maps*
- *Right of way appraisal maps*
- *Deeds*
- *Legal Descriptions*
- *Resolution of Necessity Exhibits as required*
- *Exhibits for utility relocations, railroad agreements, right of way acquisition, as required.*

TASK 3.230 – PREPARE HIGHWAY DRAFT PLANS, SPECIFICATIONS & ESTIMATES

Task 3.230.05 Draft Highway Plans

CONSULTANT shall prepare the Highway Roadway Plans, Specifications, and Estimates (PS&E) plans set for the project following the Caltrans Highway Design Manual and Caltrans Standard Plans as appropriate. This will also include analysis of alternatives that may be required in looking at the most feasible terminus points, operational efficiencies, and ingress/egress locations. Sufficient study including design and cost estimates would be needed to provide adequate information for decisions on which alternative(s) to move forward with. Preparation of the Highway PS&E plans set shall include, but not be limited to, the preparation of the following roadway engineering sheets:

- | | |
|--|-------------------------------------|
| - Title Sheet | - Typical Cross Sections |
| - Roadway/Geometric Layouts | - Profile and Superelevation Sheets |
| - Construction Details | - Contour Grading Plans |
| - Summary of Quantities | - Stage Construction Plans |
| - Traffic Handling Plans | - Highway Planting Plans |
| - Utility & Utility Relocation Plans | - Drainage Plans |
| - Signing and Pavement Delineation Plans | - Electrical Plans |
| - Toll Infrastructure | |
| - Transportation System Management | |

- Preparation of the roadway plans shall be consistent with Caltrans design standards to the greatest extent feasible. CONSULTANT shall coordinate toll infrastructure design with SBCTA Toll Service Provider (TSP). TSP shall provide initial infrastructure design requirements for its toll collection system. Enforcement and CHP considerations will need to be incorporated into the design. This safe locations for CHP to monitor traffic in the express lanes and safe areas for CHP to pull over vehicles in the Express and GP lanes.
- Coordination with RCTC toll system integrator may be required as well if RCTC is operating portions of this project.

CONSULTANT shall perform an internal QA/QC plans check and review and shall submit copies to SBCTA for peer review prior to submittal to Caltrans. CONSULTANT shall notify SBCTA's Project Manager if the CONSULTANT is seeking any exceptions to any applicable design standards.

Deliverables:

- 65% Plans
- 95% Plans

Task 3.230.20 Transportation Management Plan

CONSULTANT will prepare the Draft and Final Transportation Management Plan (TMP) in accordance with current Caltrans procedures and guidelines. The TMP will identify specific measures that can be taken during construction to reduce impacts due to construction on the traveling public and to provide travel through and around the work area.

Deliverables:

- *Transportation Management Plan*

Task 3.230.35 Draft Highway Specifications

CONSULTANT shall prepare the Highway Specifications and Special Provisions for the project following the Caltrans Standard Specifications. CONSULTANT shall notify SBCTA's Project Manager if the CONSULTANT is seeking any exceptions to this requirement.

Deliverables:

- *Draft Standard Special Provisions (65% and 95% PS&E)*

Task 3.230.40 Draft Highway Quantities and Estimates

CONSULTANT shall prepare the Highway Quantities and Estimates for the project following the Caltrans Standard Specifications including periodic cost updates, as well as cost estimates to support the analysis of project alternatives developed during design. CONSULTANT shall notify SBCTA's Project Manager if the CONSULTANT is seeking any exceptions to this requirement.

Deliverables:

- *Draft Quantities and Estimates*

Task 3.230.60 Updated Storm Water Data Report

CONSULTANT will prepare an Updated Storm Water Data Report (SWDR) in accordance with current Caltrans procedures and guidelines. The SWDR will identify specific measures that can be taken to handle storm water flows around the work area.

Deliverables:

- *Storm Water Data Report-PS&E*

Task 3.230.70 Updated Hydraulics Report

CONSULTANT will prepare an updated Hydraulics Report in accordance with current Caltrans procedures and guidelines. The updated Hydraulics Report will evaluate existing drainage systems and will be used to support the drainage plans.

Deliverables:

- *Hydraulics Report*

Task 3.230.80 Geotechnical Design Report

CONSULTANT will prepare a Geotechnical Design Report in accordance with current Caltrans procedures and guidelines. The Geotechnical Design Report will be used for recommendations to complete the plans and specifications.

Deliverables:

- *Geotechnical Design Report*

Task 3.230.80 Updated Materials Report

CONSULTANT will prepare an updated Materials Report in accordance with current Caltrans procedures and guidelines. The updated Materials Report will be used to support the pavement structural section design.

Deliverables:

- *Materials Report*

TASK 3.240 – PREPARE STRUCTURAL DRAFT PLANS, SPECIFICATIONS & ESTIMATES

Task 3.240.60 Hydraulics Report

CONSULTANT will prepare the Draft and Final Hydraulics Report in accordance with current Caltrans procedures and guidelines. The Hydraulics Report will identify strategies and requirements for use by the design engineer to prepare the structural plan sheets.

Deliverables:

- *Hydraulics Report*

Task 3.240.65 Preliminary Foundation Report

CONSULTANT will prepare the Preliminary Foundation Report to be utilized as part of the Structures Type Selection. The Preliminary Foundation Report shall document existing foundation conditions, make preliminary foundation recommendations, and identify the need for investigations, subsurface exploration, and studies.

Deliverables:

- *Preliminary Foundation Report*

Task 3.240.70 Subsurface Exploration and other Field Studies

CONSULTANT will perform work required to perform subsurface exploration to support the Foundation Report. This task includes all activities needed such as procurement of permits and rights to enter to perform any needed subsurface explorations. Results of the study shall be summarized in a report. Subsurface exploration work shall include proposed bridge widening and retaining or soundwalls required for the project.

CONSULTANT will perform an infiltration test to determine the percolation rates for the proposed storm water treatment facilities.

Deliverables:

- *Log of Test Borings*
- *Infiltration Test Report*

Task 3.240.75 Draft Structural Plans

CONSULTANT shall prepare the Structural Plans, Specifications and Estimates (PS&E) plans set for the project following the Caltrans Highway Design Manual and Caltrans Standard Plans as appropriate. Preparation of the Structural PS&E plans set shall include, but not be limited to the preparation of the following roadway engineering sheets:

- | | |
|----------------------------|---------------------------------|
| - Title Sheet | - Typical Cross Sections |
| - Foundation Plans | - Bridge General Plans |
| - Soundwall Plans | - Retaining Wall Plans |
| - Stage Construction Plans | - Structural Special Provisions |
| - Structural Quantities | |

CONSULTANT shall perform an internal QA/QC plans check and review and shall submit copies to SBCTA for peer review prior to submittal to Caltrans. CONSULTANT shall notify SBCTA's Project Manager if the CONSULTANT is seeking any exceptions to any applicable design standards.

Deliverables:

- *Type Selection Report*
- *65% Plans*
- *95% Plans*

Task 3.240.80 Foundation Report

CONSULTANT shall prepare the Foundation Report incorporating subsurface explorations through report and Log of Test Borings. The Foundation Report is to provide the required geologic and geotechnical recommendations needed to prepare the structural plans sheets.

Deliverables:

- *Foundation Report*

TASK 3.255 – PREPARE FINAL PS&E PACKAGE

Task 3.255.20 Final District PS&E Package

This task includes the distribution of the draft final combined highway and structural PS&E package for final review by Caltrans, SBCTA, and other stakeholders. CONSULTANT shall address comments received and incorporate changes as appropriate in the final combined PS&E package. Under this task, CONSULTANT shall perform an internal QA/QC plans check and review and shall submit the final combined PS&E package to an independent reviewer, which shall be provided by the CONSULTANT. The independent reviewer shall be a registered Professional Engineer in the State of California and shall certify the quality of the package and that the plans are constructible. The independent reviewer shall submit a stamped report to the SBCTA summarizing its review and certifying the constructability of the plans and that the final combined PS&E package is biddable. CONSULTANT will be responsible for completion of the draft final combined PS&E package in a manner where there is sufficient time to address comments during the independent review and finalize the PS&E package within the project schedule. CONSULTANT will be responsible for the constructability of the project.

Deliverables:

- *Final Combined PS&E Package*
- *Independent Constructability and Ready-to-Bid Certification*

Task 3.255.40 Resident Engineer File and Supplemental Materials

CONSULTANT shall be responsible for preparing the pending Resident Engineer File and other supplemental PS&E materials, which would include the following:

- | | |
|--|-------------------------------------|
| - Geotechnical Information Handout | - Materials Information Handout |
| - Construction Staking Package and Control | - Project Controls for Construction |
| - Grid Grades | - Construction Permits |
| - Quantity Work Book | - Representative Cross Sections |

Deliverables:

- *Pending Resident Engineer File*
- *Supplemental PS&E Materials*

TASK 3.260 – CONTRACT BID DOCUMENTS READY TO LIST

Task 3.260-1 Draft Contract

CONSULTANT shall assist SBCTA in the preparation of the Construction Contract Bid Documents. Under this task, the CONSULTANT shall develop a draft contract, which shall be consistent with Caltrans standards. Draft contract shall include the plans, specifications, special provisions, applicable Federal, state and local laws, regulations, and requirements and item codes. All contract pay items shall utilize the Basic Engineering Estimate System (BEES) coding.

Deliverables:

- *Draft Construction Contract Package*

TASK 5.270 – CONSTRUCTION ENGINEERING – TECHNICAL SUPPORT

Provide Technical Support to the construction engineering staff including design, traffic, hydraulics, materials, structures design, geotechnical services, environmental, landscape and other specialty staff. Functional support may include attendance at pre-work conferences, on-site construction support including contractor request for information (RFI) and RE pending file review.

TASK 6.295 – ACCEPT CONTRACT/PREPARE FINAL CONSTRUCTION ESTIMATE AND FINAL REPORT

Work involved in the acceptance and final documentation of a construction contract.

Work involved includes coordination with the construction manager and/or Resident Engineer to develop as-built plans in accordance with Caltrans and the City Standards. Work includes the transfer of the red-line As-Built plan mark-ups to the original full size reproducible plan sheets (and CADD file) and forwarding a reproducible set of plans with the transferred As-Built changes to SBCTA, Caltrans and the Cities. CONSULTANT shall complete this task within 30 calendar days of receipt of red-line mark-ups.

Deliverables:

- *Red line construction package*
- *As-Built construction package*
- *Electronic and hardcopy submittal for Caltrans and City records*

V. PROJECT SPECIFIC QUALITY ASSURANCE AND QUALITY CONTROL PLAN REQUIREMENTS

Quality Assurance (QA) encompasses all of the planned and systematic activities implemented within the quality system that can be demonstrated to provide confidence that a product or service will fulfill requirements for quality. Quality Control (QC) consists of operational techniques and activities used to fulfill requirements for quality. For environmental review process, preliminary engineering and final design, QC includes technical checking, review and design verification activities, while the QA activities includes the monitoring, surveillances, auditing and other means of oversight of the QC activities and documentation, to ensure completeness and adherence to the QC procedures.

A project specific quality management plan (herein referred to as a Project QA/QC Plan) shall be developed by the Consultant and submitted to SBCTA for review and approval. The Project QA/QC Plan shall describe how QA and QC will be executed and express by the Consultant and its subconsultants. In lieu of a Project QA/QC Plan, for small projects at the discretion of the SBCTA Director of Project Delivery, a copy of the Consultant's standard QA and QC procedures that are to be followed by the Consultant team (including

subconsultants) for the project, will be submitted to SBCTA for review and approval. The standard QA and QC procedures document and any appended project-specific processes, should address the same requirements listed below for the Project QA/QC Plan.

The following is a list of the minimum content and scope of what the Project QA/QC Plan shall contain. When submitted to SBCTA for review, the Project QA/QC Plan will be reviewed and assessed to ensure that these topic areas are covered and adequately addressed by the plan.

Project Introduction and Scope:

- Project description
- Scope of work
- Quality objectives
- List of deliverable documents for each milestone submittal

Project Team Qualifications, Organization, Staff, Roles and Responsibilities:

- A description of the minimum resource requirements for staff competence, skills, experience, and credentials.
- Organization chart showing project staff and lines of QA and QC authority and communications.
- List of project staff members, roles and responsibilities, including verification, QC review and technical checking, Project Management, Project QA Management and Technical Lead duties.

Quality Training:

- Quality training, including a training syllabus, schedule, and methods of tracking the staff that have been trained.

Scheduling of Quality Activities:

- Detailed QA and QC schedule that provides the timing, durations, and dependencies for all QC technical checking, interdisciplinary reviews, internal design verification against project criteria, and internal QA audits.

SBCTA, TSP and Caltrans Reviews:

- Formal external (SBCTA, TSP and Caltrans) review schedules (Peer Reviews and Constructability Reviews).
- Processes for SBCTA and TSP Peer Review and Caltrans review comments tracking, response, resolution, checking of comment incorporation, and closure process.

Internal Reviews:

- Quality procedures related to interdisciplinary design review (IDR) process.
- Technical review of environmental reports.

Management of Requirements:

- The requirements for the development of a Basis of Design report that includes a list of governing project criteria, source documents for the governing criteria, including those from Caltrans, SBCTA and local municipalities.
- Requirements management processes used to track design variation requests, and procedures for changes to the requirements as a result of approved design variances.

Quality Procedures for Project Controls:

- Project QA and QC procedures related to approved project scope changes and associated revisions to estimates and schedule.
- Project QA and QC procedures for configuration management against the baseline design.

Quality Control (QC) Procedures:

- Detailed QC procedures, including descriptions of process steps and documentation of processes for technical checking, QC reviews, and design verification. The procedures for technical checking will include:
 - QC testing and validation of computer software used for the calculations
 - Checking of calculations and data (hand calculations and computer calculations input and output)
 - Checking of drawings and exhibits
 - Checking of specifications and contract documents
 - Checking of quantities and cost estimates
 - Review of studies or report-type documents
 - QC of CADD-produced documents
- Checklists to be used to verify: design criteria / technical compliance; submittal contents; CADD compliance; specifications compliance; calculations compliance; and milestone specific level of completion.

Quality Assurance (QA) Procedures:

- The processes for QA monitoring, surveillances, and audits of the QC activities, including when QA audits are to be conducted prior to submittals, and the QC activities and QC documentation to be audited.
- Processes for the management of the implementation of Corrective Action to internal and external QA audit non-conformances and findings.

Quality Documentation:

- Quality Records list or definition.

Document Control procedures, including electronic files and project folders, submittal procedures, control of hardcopies, uploading of scanned hardcopy PDF files, document retention requirements, and the treatment of quality documents. This part of the Project QA/QC Plan may reference sections of a project management plan and/or a separate project or firm document control plan.

Minute Action

AGENDA ITEM: 5

Date: November 10, 2021

Subject:

San Bernardino Valley Coordinated Traffic Signal System - Amendments to Iteris Contract No. 16-1001515

Recommendation:

That the following be reviewed and recommended for final approval by the Board of Directors, acting as the San Bernardino County Transportation Authority, at a regularly scheduled Board meeting:

- A. Approve Amendment No. 3 to Contract No. 16-1001515 with Iteris, Inc. (Iteris) to increase the Contract not-to-exceed amount by \$1,000,000 to \$4,227,021.72 and extend the expiration date from January 3, 2022 to January 3, 2023.
- B. Waive the five (5) year maximum contract term as defined in the Contracting and Procurement Policy No. 11000 since Amendment No. 3 would extend the Contract beyond five years.
- C. Authorize the Executive Director, or his designee, to execute Contract Task Order (CTO) No. 5 for Contract No. 16-1001515 with Iteris to implement the Haven Avenue Corridor Technological Enhancement Pilot Project in an amount not-to-exceed \$1,000,000 after execution of Amendment No. 3.
- D. Authorize the Executive Director, or his designee, to execute Amendment No. 5 to CTO No. 2 for Contract No. 16-1001515 with Iteris to extend the task order completion date by one (1) year to January 3, 2023 after execution of Amendment No. 3.

Background:

On January 4, 2017, the San Bernardino County Transportation Authority (SBCTA) Board of Directors (Board) awarded Contract No. 16-1001515 (Contract) to Iteris, Inc. (Iteris) as a Contract Task Order (CTO) for the continuing operation and maintenance of the San Bernardino Valley Coordinated Traffic Signal System (SBVCTSS).

On December 16, 2019, the Contract was amended to exercise the first of two one-year options, extending the expiration date from January 31, 2020 to January 31, 2021. On January 8, 2021, the Contract was amended to exercise the second one-year option, extending the Contract expiration date from January 31, 2021 to January 3, 2022.

In July 2021, the Board provided direction on the next steps for the SBVCTSS. Action included a requirement for the Board to approve a proposed competitive process for allocation of additional Measure I Traffic Management System (TMS) funds for the program. Establishment of an Emerging Technology Ad Hoc Committee was recommended that could provide input into the competitive process and scope of work for additional SBVCTSS investment. In October 2021, the Board established the Emerging Technology Ad Hoc Committee to consider and evaluate opportunities for technology deployment throughout the Valley. Future SBVCTSS efforts will be vetted through the Emerging Technology Ad Hoc

Entity: San Bernardino County Transportation Authority

Committee and since the committee is in its infancy, it is desirable to retain the services of Iteris until a new vendor is procured and direction on the future of the SBVCTSS can be provided.

Also, in July 2021, the Board allocated \$1,000,000 to the Haven Avenue Corridor Technology Enhancement Pilot Project and up to \$250,000 annually to continue support of the existing SBVCTSS. Under the Contract, Iteris has been providing annual support to Valley jurisdictions since 2017 and it is desirable to continue this support until a new vendor is procured.

To date, four (4) CTOs have been approved and issued under the Contract with their current status as follows:

- CTO No. 1: Coordination Master Plans issued March 31, 2017, for \$479,999. Work was completed for \$479,318.20.
- CTO No. 2: On-Call System Support Services issued February 10, 2017, for \$100,000. Amendment No. 1 issued August 15, 2018, for an additional \$200,000. Amendment No. 2 issued February 11, 2019, for an additional \$200,000. Amendment No. 3 issued September 22, 2020, extending the CTO completion date to January 31, 2021. Amendment No. 4 issued January 19, 2021, for an additional \$737,022.72 and extending the CTO completion date to January 3, 2022. Total authorized amount to date: \$1,237,022.72. Work is ongoing, amount billed as of September 31, 2021: \$657,604.78.
- CTO No. 3: Semi-Annual Assessment issued March 31, 2017, for \$300,000. Work was completed for \$228,189.19.
- CTO No. 4: Update Coordination Timing Plans issued March 29, 2018, for \$1,100,000. Amendment No. 1 authorized September 28, 2020, for \$110,000. Total authorized amount to date: \$1,210,000. Work was completed for \$1,184,956.15.

Out of the total CTO authorized amount of \$3,227,021.72, a total of \$2,550,068.32, has been expended as of September 31, 2021, with a balance of \$676,953.40.

One of the remaining task orders that is currently underway is the Haven Avenue Corridor Technology Enhancement Pilot Project (Pilot Project). Iteris has been coordinating with the Cities of Ontario and Rancho Cucamonga (Cities), conducting detailed field inventory, and is scheduled to complete the Intelligent Transportation System (ITS) upgrade design, Asset Management System (AMS) software implementation for 13 intersections in the City of Ontario, Signal Performance Measure (SPM) software implementation for 33 intersections (13 in the City of Ontario and 20 in the City of Rancho Cucamonga), and Traffic Signal Synchronization at 39 intersections along Haven Avenue from Ontario Ranch Road in the City of Ontario to Wilson Avenue in the City of Rancho Cucamonga, including six California Department of Transportation (Caltrans) freeway on and off ramp intersections. AMS and SPM software will assist the Cities in monitoring their traffic communication network and signal operational performance, respectively. However, both software packages are new to the Cities and extending the Contract for one (1) additional year will facilitate training and continual support

which in turn will benefit both Cities' staff in learning and using both software to their full capabilities.

For the Haven Avenue traffic signal synchronization task, even though new timing is anticipated to be implemented by December 2021, it is beneficial for Iteris to monitor and further fine tune the new timings for a few months beginning in January 2022, to continue to account for traffic pattern shifts as traffic settles into post Covid-19 pandemic conditions.

The ITS upgrade design is scheduled to complete by January 2022, and it is advantageous for SBCTA to retain the services of Iteris to manage and oversee the implementation of the upgrades for the following reasons:

- The need to develop a complete Invitation for Bids (IFB) package, including project specifications, is no longer necessary.
- Implementation can commence as soon as design plans are approved.
- Some equipment (e.g. signal cabinet) has a very long acquisition lead time and using this turn-key method can allow equipment to be ordered before design plans are approved, thus preventing implementation delay.
- Vendor markup on equipment costs will be eliminated, thus saving overall project cost.
- Design support during implementation due to unforeseen circumstances (e.g. underground utility conflicts) can be resolved in a timely manner.
- The on-going construction of the Interstate 10 Express Lane Project, which will upgrade both traffic signals at the Haven Avenue ramps, would require close coordination between the Express Lane contractor and the Iteris Haven Avenue project team for potential design/implementation modifications. Iteris management of the implementation will facilitate coordination so changes can be expedited to ensure timely completion of this project.

In addition to the Pilot Project, there are a few SBVCTSS support tasks that are either in progress or outstanding. One example is the I-10 University Street Signal Coordination Timing which can only be implemented after the construction of the Project which is not anticipated to be complete until March 2022.

Per Policy No. 11000, V.C.3.a, amendments can be done to increase the contract not-to-exceed amount and to extend the contract term based on factors outside of the consultant's control and not anticipated during the initial cost proposal. Based on direction from the Board regarding allocation for funds and additional scope to cover the implementation of the Pilot Project, as well as the outstanding on-call system support tasks, staff is recommending Amendment No. 3 to Contract No. 16-1001515 with Iteris to allow for the Emerging Technology Ad Hoc Committee to vet the future direction of the SBVCTSS program. Amendment No. 3 will extend the Contract by one (1) year and to increase the Contract not-to-exceed amount by \$1,000,000 to \$4,227,021.72. Since this will extend the Contract beyond five (5) years, staff is requesting

Board of Directors Metro Valley Study Session Agenda Item

November 10, 2021

Page 4

waiver of the five-year maximum contract term as defined in the Contracting and Procurement Policy No. 11000.

Staff is recommending CTO No. 5 in an amount not-to-exceed \$1,000,000, be authorized for Iteris to implement the Pilot Project which includes the ITS upgrade, design support during implementation, training and continual support on AMS and SPM software, and monitoring and fine-tuning the new timings after the traffic signal synchronization task is completed.

Staff is also recommending Amendment No. 5 to CTO No. 2 to extend the CTO completion date by one (1) year to January 3, 2023 to continue support of on-call tasks and any new system support that this requested by local jurisdictions for the next year, utilizing the balance amount available including the authorized contingency, as appropriate, in the Contract.

Financial Impact:

This item is consistent with the Fiscal Year 2021/2022 Budget under Task No. 0860 Arterial Projects, Sub-Task No. 0701 Valley Signal Coordination.

Reviewed By:

This item is not scheduled for review by any other policy committee or technical advisory committee. SBCTA General Counsel, Procurement Manager and Risk Manager have reviewed this item, the draft amendment and the CTO.

Responsible Staff:

Timothy Byrne, Director of Toll Program

Approved
Board of Directors Metro Valley Study Session
Date: November 10, 2021

Witnessed By:

San Bernardino County Transportation Authority

General Contract Information

Contract No: 16-1001515 Amendment No.: 3Contract Class: Payable Department: Project DeliveryVendor No.: 01105 Vendor Name: Iteris, Inc.Description: SBVCTSS

List Any Related Contract Nos.:

Dollar Amount							
Original Contract		\$	3,227,021.72	Original Contingency		\$	235,400.00
Prior Amendments				Prior Amendments		\$	-
Current Amendment		\$	1,000,000.00	Current Amendment		\$	-
Total/Revised Contract Value		\$	4,227,021.72	Total Contingency Value		\$	235,400.00
	Total Dollar Authority (Contract Value and Contingency)					\$	4,462,421.72

Contract Authorization

Board of Directors Date: 12/1/2021 Committee Item #

Contract Management (Internal Purposes Only)

Other Contracts Sole Source? No No Budget Adjustment

Local Design

Accounts Payable

Estimated Start Date: 1/4/2017 Expiration Date: 1/3/2022 Revised Expiration Date: 1/3/2023NHS: NoQMP/QAP: NoPrevailing Wage: No

Total Contract Funding:

Total Contingency:

	Fund	Prog	Task	Sub-Task	Object	Revenue	PA Level	Revenue Code Name	\$	4,227,021.72	\$	235,400.00
GL:	4180	40	0860	0701	52001	41100000	620	MSI-TMS		2,628,000.00		
GL:	2830	40	0860	0701	52001	44214007	620	MSRC		1,000,000.00		
GL:	6010	40	0860	0701	52001		620	Local (Various Cities)		599,021.72		235,400.00
GL:										-		-
GL:										-		-
GL:										-		-
GL:										-		-
GL:										-		-
GL:										-		-
GL:										-		-

Heng Chow

Paula Beauchamp

Project Manager (Print Name)

Task Manager (Print Name)

Additional Notes:

AMENDMENT NO. 3 TO CONTRACT NO. 16-1001515

BY AND BETWEEN

SAN BERNARDINO COUNTY TRANSPORTATION AUTHORITY

AND

ITERIS, INC.

FOR

**SAN BERNARDINO VALLEY COORDINATED TRAFFIC SIGNALS SYSTEMS (SBVCTSS)
UPDATE COORDINATION TIMING PLANS, SEMI-ANNUAL ASSESSMENTS AND ON-CALL
SYSTEM SUPPORT**

This AMENDMENT No. 3 to Contract No. 16-1001515 is made by and between the San Bernardino County Transportation Authority ("SBCTA") and Iteris, Inc. ("CONSULTANT"). SBCTA and CONSULTANT are each a "Party" and collectively the "Parties" herein.

RECITALS:

- A. The Parties entered into Contract No. 16-1001515 on January 18, 2017, setting forth the terms and conditions for SBVCTSS update coordination timing plans, semi-annual assessment and on-call system support ("Contract"); and
- B. The Parties entered into Amendment No. 1 on December 16, 2019, exercising the first of two year options to extend the Contract expiration date to January 31, 2021; and
- C. The Parties entered into Amendment No. 2 on January 8, 2021, exercising the second of two year options to extend the Contract expiration date to January 3, 2022; and
- D. SBCTA and CONSULTANT desire to further amend the Contract to increase the Contract not-to-exceed amount to \$4,227,021.72; and extend the contract expiration date to January 3, 2023.

NOW, THEREFORE, the Parties agree to amend the Contract as follows:

1. Article 4., Performance Period, is removed and replaced in its entirety to read as follows:

"ARTICLE 4. PERFORMANCE PERIOD

- 4.1 This Contract shall go into effect on January 4, 2017; contingent upon approval by SBCTA's Awarding Authority, and CONSULTANT shall commence work after written notification to proceed by SBCTA's Procurement Analyst. The Contract shall end on January 3, 2023, unless extended by written amendment.

4.2 CONSULTANT is advised that any recommendation for contract award is not binding on SBCTA until the Contract is fully executed and approved by SBCTA's Awarding Authority.

4.3 Intentionally Omitted.”

2. Article 5.17 is removed and replaced in its entirety to read as follows:

“The total amount payable by SBCTA for all CTO's resulting from this Contract shall not exceed Four Million Two Hundred Twenty-Seven Thousand Twenty-One Dollars and Seventy-Two Cents (\$4,227,021.72). It is understood and agreed that there is no guarantee, either expressed or implied that this dollar amount will be authorized under this Contract through CTOs.”

3. Except as amended by this Amendment No. 3, all other provisions of the Contract and amendments thereto shall remain in full force and effect and are incorporated herein by this reference.

4. The Recitals set forth above are incorporated herein by this reference.

5. This Amendment No. 3 is effective upon execution by SBCTA.

IN WITNESS WHEREOF, the parties hereto have executed this Amendment No.3 below.

**SAN BERNARDINO COUNTY
TRANSPORTATION AUTHORITY**

CONSULTANT

By: _____
Curt Hagman
President, Board of Directors

By: _____
Ramin Massourni
Senior Vice President and General Manager

Date: _____,

Date: _____,

APPROVED AS TO FORM:

By: _____
Khristine Arakaki
Assistant Secretary

By: _____
Juanda L. Daniel
Assistant General Counsel

Date: _____,

CONCURRENCE:

By: _____
Jeffery Hill
Procurement Manager



Contract Task Order

5.c

Except as otherwise expressly provided herein, Consultant hereby agrees to perform the work described below in accordance with all of the terms and conditions of the Master Contract referenced below. The Consultant shall furnish the necessary facilities, professional, technical and supporting personnel required by this Contract Task Order (CTO) as described below.

Consultant Name: Iteris, Inc. Contract No.: 16-1001515
CTO No.: 5
Amendment No.: 0

Period of Performance: CTO Start Date: 12/1/2021 CTO Completion Date: 1/3/2023

Scope of Work Description – Attachment A

CTO Pricing – Attachment B

☐ Lump Sum ☒ Time and Materials

Original CTO Amount: \$ 1,000,000 Not to Exceed CTO Amount: \$ 1,000,000.00
Amendment # 0 to CTO # 5: Not to Exceed Amendment Amount: \$ 0
Cumulative Amount of All Amendments: \$ 0
REVISED TOTAL CTO AMOUNT (Amount includes all Amendments): \$ 1,000,000.00
Funding String For This CTO: 4180.40.0860.0701.52001.41100000

<u>Subcontractors:</u>	<u>DBE</u>	<u>Amount</u>	<u>Cumulative Amount</u>
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____

Consultant hereby acknowledges receipt and acceptance of the Contract Task Order.
Authorized to sign:

Name

Date

San Bernardino County Transportation Authority

Executive Director

Date

Contract Expires: 1/31/22 Pending Amendment No. 3

Available Authority: \$74,469.89

SCOPE OF WORK

Task 1: ITS / Communication Upgrade Construction and Integration

In order to prevent delays in equipment delivery due to long lead time caused by the pandemic, Iteris, Inc., (Iteris) will order all project equipment upon receipt of the 90% review comments. After the design has been successfully completed and the equipment has been procured, Iteris and its subcontractor will schedule a pre-construction meeting with both Cities to go over the details and schedule of construction. The equipment will be procured by Iteris and will be installed and integrated with the assistance of our subcontractor. Iteris' in-house experts will expand on existing or generate new Virtual Local Area Networks (VLANs) for the communications network, and also configure switches, controllers, Internet Protocol (IP) cameras, VDS, etc. for deployment. In addition to the preparation of equipment installation, Iteris staff will also be present in the field not only for construction management (review shop drawings, respond to RFIs, quality management, etc.), but also to implement signal hardware, provide integration support, and troubleshooting. We will ensure that both cities are satisfied with the equipment upgrades before finalizing the project.

Task 2: Design Support and Construction Documentation

It is imperative to document the condition of all equipment that are affected during construction. Iteris will work closely with our subcontractor to ensure City standards and guidelines are adhered to. If design changes are necessary due to unforeseen circumstances, SBCTA and the appropriate agency will be notified and approval requested prior to proceeding. All manufacture warranties will be provided to the cities prior to acceptance of the project. Upon completion of construction, Iteris will conduct field site visits throughout the entire corridor to take pictures and document that all improvements are completed to the City's satisfaction. While performing the field site visits, any deviations in the design plans will be noted and incorporated into the as-builts (record drawings).

Attachment B

COST ESTIMATE

Below are the ITS and communication upgrade construction cost estimates for Haven Avenue Technological Enhancement:

City of Ontario	Unit	Qty	Unit Price	Cost
Video detection system (VDS) at Conkurs, Guasti & Riverside	ea	3	\$ 40,000	\$ 120,000
CCTV upgrade at Guasti, Inland Empire & Philadelphia	ea	3	\$ 10,000	\$ 30,000
Traffic signal controller upgrade at Creekside	ea	1	\$ 5,000	\$ 5,000
Traffic signal cabinet upgrade at Conkurs, Creekside, Riverside & Inland Empire	ea	4	\$ 35,000	\$ 140,000
Fiber optic cable in existing conduit from Philadelphia to Francis	LF	3300	\$ 15	\$ 49,500
Fiber optic cable in existing conduit from Creekside to Riverside to Mill Creek	LF	3900	\$ 15	\$ 58,500
Center-to-center communication between Ontario and Caltrans	LS	1	\$ 15,000	\$ 15,000
Center-to-center communication between Ontario and Rancho Cucamonga	LS	1	\$ 41,000	\$ 41,000
Design Support During Construction	LS	1	\$ 47,000	\$ 47,000
			Subtotal:	\$ 506,000
			20% Contingencies:	\$ 101,200
			Total Cost Estimates (Ontario):	\$ 607,200
City of Rancho Cucamonga	Unit	Qty	Unit Price	Cost
Video detection system (VDS) at Amber, Banyan, Lemon & Alta Loma	ea	4	\$ 40,000	\$ 160,000
CCTV upgrade at Amber, Banyan & Alta Loma	ea	3	\$ 10,000	\$ 30,000
Center-to-center communication between Ontario and Rancho Cucamonga	LS	1	\$ 41,000	\$ 41,000
Reimbursement of Asset Management System (procured by City)	LS	1	\$ 50,000	\$ 50,000
Design Support During Construction	LS	1	\$ 47,000	\$ 47,000
			Subtotal:	\$ 328,000
			20% Contingencies:	\$ 65,600
			Total Cost Estimates (Rancho Cucamonga):	\$ 393,600
			TOTAL COST ESTIMATES:	\$1,000,800

Attachment: CTO 5 A & B (8063 : SBVCTSS - 16-1001515 Ileris Contract Amendment 3, CTO 5 and CTO 2 Amendment 5)



Contract Task Order

5.e

Except as otherwise expressly provided herein, Consultant hereby agrees to perform the work described below in accordance with all of the terms and conditions of the Master Contract referenced below. The Consultant shall furnish the necessary facilities, professional, technical and supporting personnel required by this Contract Task Order (CTO) as described below.

Consultant Name: Iteris, Inc. Contract No.: 16-1001515
CTO No.: 2
Amendment No.: 5

Period of Performance: CTO Start Date: 3/15/2017 CTO Completion Date: 1/3/2023

Scope of Work Description – *No change to Scope of Work items is requested by this amendment*

CTO Pricing – *No change to the amendment price is requested by this amendment*

☐ Lump Sum ☒ Time and Materials

Original CTO Amount: \$ <u>100,000</u>	Not to Exceed CTO Amount:	\$ <u>100,000.00</u>
Amendment # <u>5</u> to CTO # <u>2</u> :	Not to Exceed Amendment Amount:	\$ <u>0</u>
	Cumulative Amount of All Amendments:	\$ <u>1,137,022.72</u>
REVISED TOTAL CTO AMOUNT (Amount includes all Amendments):		\$ <u>1,237,022.72</u>
	Funding String For This CTO:	<u>4180.40.0860.0701.52001.41100000</u>

<u>Subcontractors:</u>	<u>DBE</u>	<u>Amount</u>	<u>Cumulative Amount</u>
_____	_____	\$ _____	\$ _____
_____	_____	\$ _____	\$ _____

Consultant hereby acknowledges receipt and acceptance of the Contract Task Order.
Authorized to sign:

Name

Date

San Bernardino County Transportation Authority

Executive Director

Date

Contract Expires: 1/31/22 Pending Amendment No. 3

Available Authority: \$74,469.89



949.270.9400
iteris.com

1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705

October 11, 2021

Mr. Tim Byrne
San Bernardino County Transportation Authority
1170 West Third Street, 2nd Floor
San Bernardino, CA 92410

RE: SBVCTSS 16-1001515 – Request for Contract Extension

Dear Tim,

Iteris, Inc. (Iteris) has been pleased to provide traffic engineering services to SBCTA for the San Bernardino Valley Coordinated Traffic Signal Synchronization (SBVCTSS) Program Project. As you are aware, our current contract 16-1001515 is going to expire on January 3, 2022. However, as Iteris is currently working on a few task orders that are anticipated to extend past January 2022, we are therefore respectfully requesting SBCTA to further extend our contract for one more year to January 2023.

Two notable task orders that are in progress and would require time extension are:

1. I-10 and University Avenue Signal Coordination Timing

The scope for this task order includes preparation and implementation of signal coordination timing at both reconstructed eastbound and westbound I-10 freeway on/off ramps at University Avenue and at University / Citrus intersection, as part of the I-10/University Interchange Improvement Project, also led by SBCTA. However, we were told recently by SBCTA that the construction of that project is scheduled to complete around March 2022. Because implementation of new coordination timing cannot be done until construction is complete, an extension of the current task order and our overall contract is therefore necessary.

2. Haven Avenue Corridor Technological Enhancement Pilot Project

Our current scope for this task order includes the following tasks:

- Intelligent Transportation System (ITS) upgrade design –
 - Video detection system (VDS) upgrade at seven intersections (4 in Rancho Cucamonga and 3 in Ontario)
 - CCTV upgrade at six intersections (3 in Rancho Cucamonga and 3 in Ontario)
 - Traffic signal controller upgrade at Haven/Creekside in Ontario
 - Traffic signal cabinet upgrade at four intersections in Ontario
 - Fiber optic communication design in Ontario
 - Center-to-center communication design between Ontario and Caltrans
 - Center-to-center communication design between Ontario and Rancho Cucamonga
- Asset Management System (AMS) software implementation for 13 intersections in Ontario
- Signal Performance Measure (SPM) software implementation for 33 intersections (13 in Ontario and 20 in Rancho Cucamonga)
- Traffic Signal Synchronization at 39 intersections along Haven Avenue from Ontario Ranch Road (Ontario) to Wilson Avenue (Rancho Cucamonga), including six Caltrans freeway on/off ramp intersections



949.270.9400
iteris.com

1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705

AMS and SPM software can help the cities monitor their traffic communication network and signal operational performance, respectively. However, both software packages are new to the Cities and therefore extending our contract for one additional year will facilitate training and continual support which in turn will benefit both Cities' staff in learning and using both software to their full capabilities.

Iteris has successfully implemented similar ITS / communication upgrades and signal coordination timings along many corridors using the same turn-key delivery method to save time and money. An example is the recently completed Main Street Regional Traffic Signal Synchronization Project (RTSSP) in Orange County --- a \$3.6 million project with ITS design, construction and signal timing coordination for a 12-mile corridor of 64 intersections spanning four agencies. It was completed in 18 months despite unexpected delay caused by the unprecedented COVID-19 pandemic, with a construction saving of over \$163,000.

The following provides the scope of work (SOW) for the turn-key delivery method led by Iteris.

SCOPE OF WORK

Task 1: ITS / Communication Upgrade Construction and Integration

In order to prevent delays in equipment delivery due to long lead time caused by the pandemic, Iteris will order all project equipment upon receipt of the 90% review comments. After the design has been successfully completed and the equipment has been procured, Iteris and its subcontractor will schedule a pre-construction meeting with both Cities to go over the details and schedule of construction. The equipment will be procured by Iteris and will be installed and integrated with the assistance of our subcontractor. Iteris' in-house experts will expand on existing or generate new Virtual Local Area Networks (VLANs) for the communications network, and also configure switches, controllers, Internet Protocol (IP) cameras, VDS, etc. for deployment. In addition to the preparation of equipment installation, Iteris staff will also be present in the field not only for construction management (review shop drawings, respond to RFIs, quality management, etc.), but also to implement signal hardware, provide integration support, and troubleshooting. We will ensure that both cities are satisfied with the equipment upgrades before finalizing the project.

Task 2: Design Support and Construction Documentation

It is imperative to document the condition of all equipment that are affected during construction. Iteris will work closely with our subcontractor to ensure City standards and guidelines are adhered to. If design changes are necessary due to unforeseen circumstances, SBCTA and the appropriate agency will be notified and approval requested prior to proceeding. All manufacture warranties will be provided to the cities prior to acceptance of the project. Upon completion of construction, Iteris will conduct field site visits throughout the entire corridor to take pictures and document that all improvements are completed to the City's satisfaction. While performing the field site visits, any deviations in the design plans will be noted and incorporated into the as-builts (record drawings).

COST ESTIMATE

Below are the ITS and communication upgrade construction cost estimates for Haven Avenue Technological Enhancement:



949.270.9400
iteris.com

1700 Carnegie Avenue, Suite 100
Santa Ana, CA 92705

City of Ontario	Unit	Qty	Unit Price	Cost
Video detection system (VDS) at Concurs, Guasti & Riverside	ea	3	\$ 40,000	\$ 120,000
CCTV upgrade at Guasti, Inland Empire & Philadelphia	ea	3	\$ 10,000	\$ 30,000
Traffic signal controller upgrade at Creekside	ea	1	\$ 5,000	\$ 5,000
Traffic signal cabinet upgrade at Concurs, Creekside, Riverside & Inland Empire	ea	4	\$ 35,000	\$ 140,000
Fiber optic cable in existing conduit from Philadelphia to Francis	LF	3300	\$ 15	\$ 49,500
Fiber optic cable in existing conduit from Creekside to Riverside to Mill Creek	LF	3900	\$ 15	\$ 58,500
Center-to-center communication between Ontario and Caltrans	LS	1	\$ 15,000	\$ 15,000
Center-to-center communication between Ontario and Rancho Cucamonga	LS	1	\$ 41,000	\$ 41,000
Design Support During Construction	LS	1	\$ 47,000	\$ 47,000
			Subtotal:	\$ 506,000
			20% Contingencies:	\$ 101,200
Total Cost Estimates (Ontario):				\$ 607,200
City of Rancho Cucamonga	Unit	Qty	Unit Price	Cost
Video detection system (VDS) at Amber, Banyan, Lemon & Alta Loma	ea	4	\$ 40,000	\$ 160,000
CCTV upgrade at Amber, Banyan & Alta Loma	ea	3	\$ 10,000	\$ 30,000
Center-to-center communication between Ontario and Rancho Cucamonga	LS	1	\$ 41,000	\$ 41,000
Reimbursement of Asset Management System (procured by City)	LS	1	\$ 50,000	\$ 50,000
Design Support During Construction	LS	1	\$ 47,000	\$ 47,000
			Subtotal:	\$ 328,000
			20% Contingencies:	\$ 65,600
Total Cost Estimates (Rancho Cucamonga):				\$ 393,600
TOTAL COST ESTIMATES:				\$1,000,800

Thank you very much for the opportunity to assist SBCTA in a continual effort to improve mobility within the San Bernardino Valley region. Please feel free to call me at 949-270-9633 should you have any questions.

Sincerely,
Iteris, Inc.

Bernard K. Li, EE, TE, PTOE
Vice President
Consulting Solutions

**cta**San Bernardino County
Transportation Authority

5.g

RFP/IFB #: _____

Date: 10/8/2021Project Title: SBVCTSS**Contract # & Amendment # 16-1001515 CTO#5**

In accordance with **SBCTA Policy 11000, Contract and Procurement Policy**, an ICE is required for all procurement actions with the exception of agreements between SBCTA and sole-source vendors such as California Highway Patrol, Southern California Edison, and any of the railroads.

Use this form for small (less than \$50,000) or simple procurements. The ICE must be completed prior to requesting quotes from prospective vendors, contractors, and consultants.

Please X which of the statements apply.

<input type="checkbox"/>	I performed market research for the pricing of the products and/or services being procured through one or more of the following sources: <input type="checkbox"/> Internet <input type="checkbox"/> Trade Show <input type="checkbox"/> Catalog <input type="checkbox"/> Other Contracts
<input type="checkbox"/>	I contacted other agencies that may have procurement knowledge/experience for the product or service being procured to determine the prices they paid.
<input type="checkbox"/>	I reviewed/compared SBCTA historical or established labor rates or product pricing in order to determine my estimate for this procurement.
<input checked="" type="checkbox"/>	Other (explain): ICE per July 7, 2021 Board Agenda #8 (Attachment 1)

The ICE for this project/action is \$ 1,150,000

Provide a brief explanation of your analysis that is the basis of your estimate.

In July 7, 2021 SBCTA Board meeting, Board allocated \$1M of Measure I TMS funds to the Haven Avenue corridor pilot project based on the ICE of \$1,150,000. The ICE was based on a combination of short-term measures for potential implementation in the project, per the attached agenda.

Attach all backup documents to this form, i.e., e-mails, screen prints or catalog pages.

Heng Chow

Project Manager (Print)

Project Manager Signature

Attachment 1

Minute Action

AGENDA ITEM: 8

Date: July 7, 2021

Subject:

San Bernardino Valley Coordinated Traffic Signal System Program Next Steps

Recommendation:

That the Board, acting as the San Bernardino County Transportation Authority:

- A. Direct staff to continue to maintain the San Bernardino Valley Coordinated Traffic Signal System (SBVCTSS) program through continued consultant support for up to \$250,000 annually for the next five years using Measure I Valley Traffic Management Systems (TMS) program funding.
- B. Allocate \$1,000,000 of Measure I Valley TMS program funds to a Haven Avenue corridor pilot project.
- C. Allocate \$3,000,000 and \$2,000,000 of Measure I Valley TMS program funds to be made available to East Valley and West Valley jurisdictions, respectively, through a competitive grant process to be developed by staff for implementation of a regional coordinated approach to SBVCTSS program improvements upon future Board of Directors approval.

Background:

Starting in 2002, with the San Bernardino Valley Traffic Signal Coordination System Master Plan, San Bernardino County Transportation Authority (SBCTA), in conjunction with the Valley cities and the County of San Bernardino (local agencies), implemented signal coordination on major arterial corridors on a valley-wide scale with an investment of over \$15 million. Implementation of signal coordination occurred in various phases designated as Tiers 1, 2, 3 and 4, and included approximately 1,250 signalized intersections controlled by sixteen (16) separate local agencies and the California Department of Transportation (Caltrans). Both Tiers 1 - 2 Project, completed in 2008, and Tiers 3 - 4 Project, completed in 2012, at system turn-on, showed significant improvements in arterial travel times and reductions in vehicle stops and delays.

In July 2011, the SBCTA Board of Directors (Board) approved the Memorandum of Understanding (MOU) No. C11223 between SBCTA and the local agencies providing direction for the operation and maintenance of the San Bernardino Valley Coordinated Traffic Signal System (SBVCTSS). After implementation by SBCTA, local agencies were responsible for the continued maintenance of the SBVCTSS as noted in the MOU which expired on September 30, 2016.

In January 2015, an assessment of the SBVCTSS was completed and found that many of the systems were not being fully maintained. The assessment yielded results in various jurisdictions varying from 21% to 87% of the traffic signals within the jurisdictions on-line and communicating with the respective central systems, therefore operating as anticipated. Overall, 44% of the SBVCTSS signals were on-line. Maintenance issues included communication breaks due to failed communication modems, disconnected telephone lines, damaged signal interconnect conduit/cables, failed system controllers replaced with

Entity: San Bernardino County Transportation Authority

non-compatible signal controllers, weak radio signals and wireless systems that required additional configuration and integration. Many local agencies did not have the technical resources to maintain the SBVCTSS.

Due to the reduction in system benefits caused by maintenance issues, in April 2015, during Transportation Technical Advisory Committee (TTAC) and City Managers Technical Advisory Committee (TAC) meetings and discussions, a survey was presented to the local agencies providing ongoing maintenance and operations options. The goal was to develop a strategy that could be further developed into guidelines and be recommended for adoption by the Board. Based on these discussions, a five-year plan was developed for maintaining the traffic signal coordination system so as to continue to provide benefits to the traveling public. In September 2015, this plan was presented and adopted by the Board, and staff were directed to proceed with the implementation of the five-year plan. The components of the plan included:

- A. Updated coordinated timing - \$4,600,000 (cost to be split 50/50 with local agencies)
- B. On-going maintenance of signal coordination equipment and timing - \$5,225,000
- C. Assessment of Systems and On-Call Systems Support services - \$1,000,000

Total cost for five years - \$10,825,000.

After the September 2015 meeting, staff determined it would be beneficial to divide the SBVCTSS program into sub-regions and develop Master Plans for each that would produce signal timing parameters specific to each sub-region while also providing uniformity across the entire system. This aspect of work was discussed and approved by the TTAC Ad Hoc Committee Members. Staff estimated the added cost for developing the Master Plans to be \$480,000 increasing the total estimated cost for five years to \$11,305,000.

To implement the recommended Master Plan, SBCTA entered into Cooperative Agreements with 15 of the 16 San Bernardino Valley jurisdictions, with the City of Redlands opting out of the program. In addition, in January 2017, the Board approved Contract No. 16-1001515 with Iteris, Inc. (Iteris) for preparation of updated Coordination Timing Plans (CTP), providing semi-annual assessments and providing On-Call System Support services on the SBVCTSS for a total not-to-exceed amount of \$3,462,421.72, including contingency.

Iteris performed six semi-annual assessments that resulted between 40-50% of the signals on-line and running CTP. The primary reasons that intersections in the system were not on-line and running CTP included communication device failures, such as failed modems, disconnected phone lines, damaged interconnect, weak radio signals, incorrect equipment configurations or lack of maintenance due to availability of staff resources or lack of technical knowledge. When these results were presented to the Metro Valley Study Session (MVSS) in June 2019, the study session directed staff to re-evaluate the Signal Synchronization Program (SSP) and present options to MVSS for continued direction of the program.

While various options exist for the SSP, the key is to ensure a consistent funding source exists for program implementation. The benefits to a regional system are well documented, and when initially implemented, the benefits of the Tier 1 - 2 and Tier 3 - 4 SBVCTSS program implementation were readily apparent and well documented in the final implementation reports.

In order to ensure optimal efficiency of the existing and future system, maintenance is critical, particularly if state-of-the-practice technology and equipment has not been deployed during implementation. Reliance upon cities to maintain the system within their jurisdiction has been met with mixed results due to staff resource availability and lack of technical knowledge. Therefore, a future SBVCTSS program must consider maintenance to develop a strategy to ensure the system is maintained properly.

Several options exist for the SSP regarding SBCTA participation and include the following, which are all contingent upon available program funding:

- Provide for continued maintenance and spot upgrades of the existing system as warranted.
- Implement technology to assist in maintaining the existing system.
- Develop an integrated maintenance program for the Valley, i.e. implementation of a single Traffic Management Center from which the entire system could be managed and maintained.
- Prioritize all Valley corridors for investment of available funds.
- Focus on implementation of state-of-the-practice technology to minimize maintenance needs along the existing signal system corridors to provide the greatest benefit to the traveling public.
- Train staff at local agencies to maintain the existing system.
- Continue to provide On-Call System Support services as warranted.
- Develop program parameters and guidelines that would prioritize funding for a program as grant funding is secured.
- Consider implementing a program in Victor Valley.

After the initial SBVCTSS program was implemented primarily with Congestion Management and Air Quality (CMAQ) funding, subsequent funding has come from three sources: grant funding provided by the Mobile Source Air Pollution Reduction Review Committee (MSRC) through the South Coast Air Quality Management District (SCAQMD), local jurisdiction contributions and the Measure I Valley TMS program. While the TMS Program is a source for SSP, it also supports commuter assistance programs, Freeway Service Patrol and other transportation projects benefitting the environment. As TMS funds are limited, they are insufficient to fully fund a comprehensive Valley SSP. Unfortunately, grant funding is not eligible to be used for system maintenance, therefore, Measure I funds must be used for maintenance if SBCTA involvement in the SBVCTSS program continues. In addition, as the MSRC is developing their upcoming annual work plan, their focus continues to be on freight improvements, therefore, grant funding through MSRC for SSP is not anticipated to be available in the near future.

As funding was limited during the original SBVCTSS program implementation, significant investment was not made to upgrade system hardware. State-of-the-practice communication
 San Bernardino County Transportation Authority

infrastructure for signal coordination continues to be fiber optic communication. Wireless infrastructure currently does not provide the reliability that fiber provides and fiber is expected to continue to provide reliability as the gold standard for signal system communication well into the future. In addition, signal controllers were not upgraded with SBVCTSS program implementation. Due to the number of intersections in the SBVCTSS and the distance that system corridors cover, it was not feasible to upgrade system components and original implementation focused on utilizing existing infrastructure to coordinate signals. In order to upgrade the complete system with fiber optic communications, it is estimated that approximately 227 miles of fiber would have to be placed for the key system corridors at a cost of approximately \$232,000 per mile for a total of approximately \$53,000,000. In addition, it is estimated that approximately 75% of the system controllers (approximately 740) and approximately 25% of system cabinets (approximately 250) would require replacement at a cost of approximately \$7,200,000. Upon implementation of an upgraded communication system and installation of new controllers and approximately 10 local central signal systems, approximately \$5,000,000 to \$7,000,000 would be needed to retune the key system corridors. Due to funding constraints, it is not possible to fully upgrade the system with the state-of-the-practice communication infrastructure and controller equipment. As a result, a piecemeal approach to upgrading the system is necessary.

As noted, Contract No. 16-1001515 with Iteris includes On-Call System Support services to assist local jurisdictions in maintaining the implemented SBVCTSS program. While that contract expires in January 2022, it would be cost-effective to maintain support for local jurisdictions to troubleshoot issues encountered with the existing system. An investment of up to \$200,000 per year would provide the ability to continue to diagnose technical issues on behalf of local jurisdictions who lack sufficient resources. Assessments of the existing system could be performed at a cost of \$50,000 per year to identify how the existing system is performing.

An effort was undertaken to evaluate the potential for implementation of the practice pilot project along the top priority corridors within the Valley to maximize corridor benefits. Drawing from the experience with the system to date, success requires an investment from local agencies to ensure that benefits associated with the program are sustained. The Cities of Rancho Cucamonga and Ontario have invested significantly in signal system infrastructure. To showcase continued benefits of signal synchronization, in December 2019 the Board directed staff to partner with the Cities of Rancho Cucamonga and Ontario to develop parameters and guidelines to implement, monitor and maintain a state-of-the-practice signal synchronization corridor that could be the baseline for broader application throughout the Valley.

Through coordination with the Cities of Rancho Cucamonga and Ontario, Haven Avenue was identified as an ideal candidate as the City of Rancho Cucamonga is currently planning on installing fiber optic communication lines on Haven Avenue between the City of Ontario border and north of State Route 210 (SR 210). Haven Avenue is a heavily traveled corridor serving the heart of the City of Rancho Cucamonga and is a gateway into the City of Ontario and the Ontario International Airport. The corridor is approximately 10.3 miles long and currently includes 39 signalized intersections. Currently, only five signalized intersections along the corridor are not connected via fiber optic communication lines.

Iteris, in cooperation with staff from the Cities of Rancho Cucamonga and Ontario, developed a thorough evaluation of Haven Avenue, including potential deployment of technology throughout the corridor and the ability to maintain a state-of-the-practice multijurisdictional system. Recommendations have been identified for partnering potential with SBCTA to implement, monitor, and maintain a state-of-the-practice signal synchronization corridor that would showcase system success, which could lead to broader application throughout the Valley. Recommendations were categorized as short-term, mid-term and long-term implementation options as outlined in Table 1, with projected element costs categorized as Low (\$0-\$100,000), Moderate (\$100,000 - \$500,000) and High (>\$500,000).

Table 1 Smart Travel Management Projects for the Haven Avenue Corridor

	Project Description	Cost
Short-Term	Complete fiber optic communications deployment in the Haven Avenue corridor. Ensure all traffic signals/intersections in the corridor are fully connected and in coordination with the traffic signal central system. Enable and ensure connection of other intelligent transportation management field elements – primarily closed-circuit television (CCTV) cameras – to the fiber optic communications infrastructure.	High • It appears 5 corridor intersections are not connected to central system via fiber
	Implement off the shelf network monitoring and management tools on the local agency fiber optic communications network to automatically and continuously monitor network equipment, as well as field traffic management devices (i.e., traffic signal controllers, CCTV cameras, detection [in-pavement and video], signs, etc.).	Low • \$8,000 initial purchase • \$3,000 annual
	Perform an inventory of detection and detection placement at signalized intersections on Haven Avenue, and verify that quantity of detection and placement of in-pavement detection is optimal for traffic operations. Ensure optimal configuration for video detection zones, and determine if additional detection might be warranted. Develop a detection maintenance strategy with a plan for rapid response to detect outages.	Low • \$20,000 inventory and evaluation • \$15,000 detection maintenance strategy
	Determine feasibility of additional CCTV camera deployment along the Haven Avenue corridor . Investigate the feasibility of placement of pan/tilt/zoom CCTV cameras at Haven Avenue freeway interchanges and enable shared monitoring and control of those cameras with Caltrans .	Moderate • \$20,000 CCTV study • \$10,000-50,000 per new CCTV site • Deployment with Caltrans TBD
	Enable and ensure that video images from video detection systems along Haven Avenue are available for viewing in a central location at city facilities (i.e., city hall, roadway maintenance yards, etc.). Assumes fiber optic communications already in place.	Low-Moderate • \$4,000 per intersection
	Implement an Automated Traffic Signal Performance Measures (ATSPM) platform for traffic signals along Haven Avenue. Deploy as a multi-agency platform – Ontario/Rancho Cucamonga. Enable and allow cities and SBCTA access to the platform.	Moderate • \$800 - \$1,000 per intersection to set-up • \$800 - \$1,000 per intersection annual • \$5,000 training

Board of Directors Agenda Item

July 7, 2021

Page 6

	Project Description	Cost
	Implement/expand corridor- and regional-level performance measurement program that reports corridor-level and regional-level travel trends, travel times, choke points, congestion hot spots, and other travel-related factors. This would be an expansion of the capabilities SBCTA currently has with the ClearGuide platform. Develop a routine reporting regimen that provides comprehensive and summary information and data on corridor-level and regional travel trends. Coordinate with the Automated Traffic Signal Performance Measures (ATSPM) platform deployed for Haven Avenue. Produce and disseminate comprehensive reports that include data and visual depictions of travel trends.	High <ul style="list-style-type: none"> • \$125,000 - \$200,000 annual • \$5,000 to establish initial reporting metrics and report formats, some customized reports, and establish regimen
	Evaluate feasibility and rationality of implementing Adaptive Traffic Signal Control in the Haven Avenue Corridor. Utilize ATSPM data and information as one input into the feasibility analysis. Consider utilizing the higher level (regional) corridor performance measurement program operated by SBCTA in the feasibility analysis.	Moderate <ul style="list-style-type: none"> • \$50,000 study • \$250,000 adaptive control system • \$15,000 annual • \$25,000 detection
	Study feasibility and rationality of implementing arterial Changeable Message Signs (CMS) in the Haven Avenue Corridor. Investigate the feasibility of placement of arterial CMS on Haven Avenue at approaches to freeway interchanges (SR-60, I-10, SR-210), and enable shared monitoring and control of those cameras with Caltrans. In peak periods, the signs could be controlled by Caltrans and populated with travel time and incident information. Outside peak periods, the cities could place other messages of interest to residents on those signs.	High <ul style="list-style-type: none"> • \$20,000 CMS feasibility study and recommendations • \$200,000 per CMS site • Deployment with Caltrans TBD
	Support Omnitrans in the deployment of roadside transit traveler information systems (next bus arrival signs) at transit stops along Haven Avenue. Assist with permitting, plan reviews, and acquisition of electric power (if necessary).	Low <ul style="list-style-type: none"> • \$25,000 per sign site • In-vehicle technology believed to be in place
Medium-Term	Support Omnitrans in the deployment of Transit Signal Priority (TSP) in conjunction with Omnitrans' West Valley Connector (WVC) Bus Rapid Transit (BRT) project. The initial intersection in the Haven Avenue corridor to receive TSP treatment would be the intersection of Haven Avenue and Inland Empire Boulevard, serving east/west BRT service on Inland Empire Boulevard. Subsequent expansion of the WVC BRT service would implement TSP in a 2.3 mile long segment of Haven Avenue, between from Inland Empire Boulevard to Foothill Boulevard.	Moderate <ul style="list-style-type: none"> • \$10,000 per intersection (PLUS design, construction, integration) • \$1,500 - \$4,000 per vehicle
Long-Term	Plan a pilot Connected Vehicle (CV) corridor project for the Haven Avenue Corridor. Initiate stakeholder coordination to determine which CV application(s) is (are) desired for early deployment and testing. Consult lead stakeholders for other local CV pilot deployments in Anaheim (city of Anaheim) and Riverside (UC Riverside CE-CERT Research) to obtain lessons learned. Seek out CV education opportunities and other material from the USDOT and Federal Highway Administration (FHWA).	Moderate-High <ul style="list-style-type: none"> • \$30,000 feasibility study • \$75,000 implementation plan • Design, construction, and integration TBD

Note: Cost categories – Low: \$0-\$100K, Moderate \$100K-\$500K, High >\$500K

As noted in Table 1, various options have been identified for potential implementation in the Haven Avenue corridor. Most of these initiatives could be implemented independent from one another and benefit the corridor. **Implementation of the short-term measures from Table 1 could**

San Bernardino County Transportation Authority

cost up to \$1,150,000 with ongoing annual costs of up to \$200,000. Implementing adaptive traffic signal control along Haven Avenue would further improve operations and cost up to \$350,000. These improvements would still allow each agency to manage their signals with information readily available for the entire Haven Avenue corridor available to each jurisdiction to streamline maintenance and provide operational capabilities to each city to manage the corridor as appropriate during special events, emergency events, etc., if necessary agreements are in place.

While SBCTA may not be positioned to fully fund a pilot project at this juncture without a dedicated funding source for a SSP, SBCTA could work with the Cities of Rancho Cucamonga and Ontario to implement technology solutions throughout the corridor. As ultimate responsibility to maintain the SBVCTSS program lies with respective jurisdictions, it is difficult to develop clear roles and responsibilities for SBCTA since local intersections are owned, operated and maintained by local jurisdictions. It would seem that SBCTA's primary role in a revamped program would be from a funding perspective and based on funding needs, a prioritized focus of investment would achieve the greatest benefits. While SBCTA could champion individual pilot projects and broader Valley-wide implementation, success of the system lies with local jurisdiction maintenance of the system.

Development of a central traffic management and control center could be a role that SBCTA leads. A centralized traffic management center would assist in maintaining and operating the system. However, as SBCTA does not currently own, operate or maintain any signals, it would prove challenging from an operational and legal perspective to take on an operation and maintenance role for local Valley signals. To be effective, such a center would require buy-in and funding support from all, or at least most, of the Valley jurisdictions. Participating jurisdictions would have to allow the central system, likely manned by consultant staff, to access and operate local signals as necessary to maintain system benefits and react to incidents or special events. While the cost to implement a center would not be unmanageable, the complexities associated with implementation and operation of a centralized traffic management center lead to a recommendation to not consider such a system at this point. The perceived complexities stem from implementation and maintenance of the existing system. While each jurisdiction signed an agreement to provide electronic access to their signal systems for maintenance and assessment purposes, at least five jurisdictions never allowed such access to our consultant and one city opted out of the SBVCTSS maintenance program entirely.

Based on experience with the development and implementation of Tiers 1 – 4, funding further implementation may not be in the best interests of SBCTA without assurances that the investment will be well maintained. To date, SBCTA has developed two programs to incentivize local jurisdictions to maintain the initial investment and the system continues to operate with approximately 50% of the signals being on-line and operating as anticipated.

In an attempt to maintain current system benefits, staff recommends that SBCTA continue to provide consultant support to local jurisdictions on an as-needed basis in an amount not-to-exceed \$250,000 annually over the next five years and allocate \$1,000,000 to implement appropriate technology solutions in the Haven Avenue corridor. As a priority East Valley corridor has not been identified as a strong candidate for a pilot project, staff recommends development of a grant program that will make \$3,000,000 available for East Valley jurisdictions

and \$2,000,000 available to West Valley jurisdictions through a competitive application process subject to local jurisdiction financial contributions and mechanisms to ensure system maintenance. Based on comments from the Metro Valley Study Session, criteria for the grant program will be developed that ensures a regional coordinated approach to future SBVCTSS improvements for approval at a future Board meeting. Performance of the Haven Avenue corridor and other corridors that are allocated funding will be measured as a basis for educating the Board prior to determining the long-term direction of the SBVCTSS program.

Financial Impact:

This item is consistent with the Fiscal Year 2021/2022 Budget under Task No. 0860 Arterial Projects, Sub-Task No. 0701 Valley Signal Coordination.

Reviewed By:

This item was reviewed at the Board of Directors Metro Valley Study Session on June 10, 2021. After discussion of the item, a motion was made to modify the staff recommendation to require Board approval of the proposed competitive process for allocation of West Valley and East Valley Measure I TMS funds. The staff recommendation, as modified, was recommended for approval (18-0-0) with a quorum of the Board present.

Responsible Staff:

Timothy Byrne, Director of Toll Program

Approved
 Board of Directors
 Date: July 7, 2021
 Witnessed By:

Additional Information

BOARD OF DIRECTORS METRO VALLEY STUDY SESSION ATTENDANCE - 2021

VALLEY BOARD MEMBER ATTENDANCE

Name	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Eunice Ulloa City of Chino		X	X	X	X	X		X	X	X		
Ray Marquez City of Chino Hills		X	X	X	X	X		X	X			
Frank Navarro City of Colton		X	X	X	X	X		X	X	X		
Aquanetta Warren City of Fontana		X	X	X	X	X		X	X	X		
Darcy McNaboe City of Grand Terrace		X	X	X	X	X		X		X		
Larry McCallon City of Highland		X	X	X	X	X		X	X	X		
Rhodes 'Dusty' Rigsby City of Loma Linda												
John Dutrey City of Montclair		X	X	X	X	X		X		X		
Alan Wapner City of Ontario		X	X	X	X	X		X	X			
L. Dennis Michael City of Rancho Cucamonga		X	X	X	X	X						
Paul Barich City of Redlands			X	X	X	X				X		
Deborah Robertson City of Rialto		X	X			X		X	X	X		
John Valdivia City of San Bernardino		X	X	X	X	X		X	X	X		
Carlos Garcia City of Upland												
Bill Velto City of Upland		X*										
David Avila City of Yucaipa		X	X	X				X	X	X		

X = member attended meeting. * = alternate member attended meeting. Empty box = Did not attend meeting. Crossed out box = not a Board Member at the time.
Shaded box = No meeting

Communication: Attendance (Additional Information)

BOARD OF DIRECTORS METRO VALLEY STUDY SESSION ATTENDANCE - 2021

VALLEY BOARD MEMBER ATTENDANCE (Cont.)

Name	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Curt Hagman Board of Supervisors		X	X	X	X	X		X	X			
Dawn Rowe Board of Supervisors		X	X	X	X	X		X	X	X		
Janice Rutherford Board of Supervisors		X	X	X	X	X		X	X			
Joe Baca, Jr. Board of Supervisors		X	X	X	X	X		X	X	X		

MOUNTAIN/DESERT BOARD MEMBER ATTENDANCE

Daniel Ramos City of Adelanto												
Gerardo Hernandez City of Adelanto												
Art Bishop Town of Apple Valley		X	X	X	X	X		X	X	X		
Paul Courtney City of Barstow												
Rick Herrick City of Big Bear Lake												
Cameron Gregg City of Hesperia												
Edward Paget City of Needles												
Joel Klink City of Twentynine Palms												
Debra Jones City of Victorville												
Rick Denison Town of Yucca Valley		X	X	X		X		X	X			

X = member attended meeting. * = alternate member attended meeting. Empty box = Did not attend meeting. Crossed out box = not a Board Member at the time.
Shaded box = No meeting

Communication: Attendance (Additional Information)

BOARD OF DIRECTORS METRO VALLEY STUDY SESSION ATTENDANCE – 2021

Paul Cook Board of Supervisors		X	X	X	X	X		X	X	X		
--	--	---	---	---	---	---	--	---	---	---	--	--

X = member attended meeting. * = alternate member attended meeting. Empty box = Did not attend meeting Crossed out box = not a Board Member at the time.

MVSSatt21 Shaded box = No meeting

Acronym List

This list provides information on acronyms commonly used by transportation planning professionals. This information is provided in an effort to assist Board Members and partners as they participate in deliberations at Board meetings. While a complete list of all acronyms which may arise at any given time is not possible, this list attempts to provide the most commonly-used terms. Staff makes every effort to minimize use of acronyms to ensure good communication and understanding of complex transportation processes.

AB	Assembly Bill
ACE	Alameda Corridor East
ACT	Association for Commuter Transportation
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
APTA	American Public Transportation Association
AQMP	Air Quality Management Plan
ARRA	American Recovery and Reinvestment Act
ATMIS	Advanced Transportation Management Information Systems
BAT	Barstow Area Transit
CALACT	California Association for Coordination Transportation
CALCOG	California Association of Councils of Governments
CALSAFE	California Committee for Service Authorities for Freeway Emergencies
CARB	California Air Resources Board
CEQA	California Environmental Quality Act
CMAQ	Congestion Mitigation and Air Quality
CMIA	Corridor Mobility Improvement Account
CMP	Congestion Management Program
CNG	Compressed Natural Gas
COG	Council of Governments
CPUC	California Public Utilities Commission
CSAC	California State Association of Counties
CTA	California Transit Association
CTC	California Transportation Commission
CTC	County Transportation Commission
CTP	Comprehensive Transportation Plan
DBE	Disadvantaged Business Enterprise
DEMO	Federal Demonstration Funds
DOT	Department of Transportation
EA	Environmental Assessment
E&D	Elderly and Disabled
E&H	Elderly and Handicapped
EIR	Environmental Impact Report (California)
EIS	Environmental Impact Statement (Federal)
EPA	Environmental Protection Agency
FHWA	Federal Highway Administration
FSP	Freeway Service Patrol
FRA	Federal Railroad Administration
FTA	Federal Transit Administration
FTIP	Federal Transportation Improvement Program
GFOA	Government Finance Officers Association
GIS	Geographic Information Systems
HOV	High-Occupancy Vehicle
ICTC	Interstate Clean Transportation Corridor
IEEP	Inland Empire Economic Partnership
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991
IIP/ITIP	Interregional Transportation Improvement Program
ITS	Intelligent Transportation Systems
IVDA	Inland Valley Development Agency
JARC	Job Access Reverse Commute
LACMTA	Los Angeles County Metropolitan Transportation Authority
LNG	Liquefied Natural Gas
LTF	Local Transportation Funds

Acronym List

MAGLEV	Magnetic Levitation
MARTA	Mountain Area Regional Transportation Authority
MBTA	Morongo Basin Transit Authority
MDAB	Mojave Desert Air Basin
MDAQMD	Mojave Desert Air Quality Management District
MOU	Memorandum of Understanding
MPO	Metropolitan Planning Organization
MSRC	Mobile Source Air Pollution Reduction Review Committee
NAT	Needles Area Transit
NEPA	National Environmental Policy Act
OA	Obligation Authority
OCTA	Orange County Transportation Authority
PA&ED	Project Approval and Environmental Document
PASTACC	Public and Specialized Transportation Advisory and Coordinating Council
PDT	Project Development Team
PNRS	Projects of National and Regional Significance
PPM	Planning, Programming and Monitoring Funds
PSE	Plans, Specifications and Estimates
PSR	Project Study Report
PTA	Public Transportation Account
PTC	Positive Train Control
PTMISEA	Public Transportation Modernization, Improvement and Service Enhancement Account
RCTC	Riverside County Transportation Commission
RDA	Redevelopment Agency
RFP	Request for Proposal
RIP	Regional Improvement Program
RSTIS	Regionally Significant Transportation Investment Study
RTIP	Regional Transportation Improvement Program
RTP	Regional Transportation Plan
RTPA	Regional Transportation Planning Agencies
SB	Senate Bill
SAFE	Service Authority for Freeway Emergencies
SAFETEA-LU	Safe Accountable Flexible Efficient Transportation Equity Act – A Legacy for Users
SCAB	South Coast Air Basin
SCAG	Southern California Association of Governments
SCAQMD	South Coast Air Quality Management District
SCRRA	Southern California Regional Rail Authority
SHA	State Highway Account
SHOPP	State Highway Operations and Protection Program
SOV	Single-Occupant Vehicle
SRTP	Short Range Transit Plan
STAF	State Transit Assistance Funds
STIP	State Transportation Improvement Program
STP	Surface Transportation Program
TAC	Technical Advisory Committee
TCIF	Trade Corridor Improvement Fund
TCM	Transportation Control Measure
TCRP	Traffic Congestion Relief Program
TDA	Transportation Development Act
TEA	Transportation Enhancement Activities
TEA-21	Transportation Equity Act for the 21 st Century
TMC	Transportation Management Center
TMEE	Traffic Management and Environmental Enhancement
TSM	Transportation Systems Management
TSSDRA	Transit System Safety, Security and Disaster Response Account
USFWS	United States Fish and Wildlife Service
VCTC	Ventura County Transportation Commission
VVTA	Victor Valley Transit Authority
WRCOG	Western Riverside Council of Governments



MISSION STATEMENT

Our mission is to improve the quality of life and mobility in San Bernardino County. Safety is the cornerstone of all we do.

We achieve this by:

- Making all transportation modes as efficient, economical, and environmentally responsible as possible.
- Envisioning the future, embracing emerging technology, and innovating to ensure our transportation options are successful and sustainable.
- Promoting collaboration among all levels of government.
- Optimizing our impact in regional, state, and federal policy and funding decisions.
- Using all revenue sources in the most responsible and transparent way.

Approved December 4, 2019