

**FIRST AMENDED AND RESTATED
COOPERATIVE AGREEMENT**

Between

**BAY AREA INFRASTRUCTURE FINANCING AUTHORITY,
SAN MATEO COUNTY EXPRESS LANES JOINT POWERS AUTHORITY,
SAN MATEO COUNTY TRANSPORTATION AUTHORITY,**

and

CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY

for

**TOLL SYSTEM DESIGN, TO INCLUDE INSTALLATION, TESTING, AND
IMPLEMENTATION FOR THE SAN MATEO COUNTY US 101 EXPRESS LANE
PROJECT**

This COOPERATIVE AGREEMENT (“Agreement”) entered into and effective as of June 26, 2019, and amended and restated in its entirety, effective on _____, 2020 is between the BAY AREA INFRASTRUCTURE FINANCING AUTHORITY (referred to herein as “BAIFA”), the SAN MATEO COUNTY EXPRESS LANES JOINT POWERS AUTHORITY (referred to herein as “SMCELJPA”), the SAN MATEO COUNTY TRANSPORTATION AUTHORITY (referred to herein as “SMCTA”) and the CITY/COUNTY ASSOCIATION OF GOVERNMENTS OF SAN MATEO COUNTY (referred to herein as “C/CAG”), together herein referred to as “PARTIES.”

RECITALS

- A. WHEREAS, the San Mateo County US 101 Express Lanes Project (“PROJECT”), a jointly sponsored project by the SMCTA, C/CAG and Caltrans, as defined in the three-party Cooperative Agreements, 04-2687 and 04-2733, dated July 11, 2018 and June 6, 2019, respectively, is designed to alleviate congestion and increase person throughput on US 101 in San Mateo County by (1) converting an existing HOV lane to an Express Lane from the Santa Clara County line to Whipple Avenue in San Mateo County, and (2) constructing a new Express Lane from Whipple Avenue in San Mateo County to Interstate 380 in San Mateo County; and
- B. WHEREAS, the PROJECT is consistent with applicable transportation plans and policies, including Plan Bay Area 2040 and the current 2019 Transportation Improvement Program (TIP); and
- C. WHEREAS, the SMCELJPA was created, pursuant to the California Joint Exercise of Powers Act, consisting of Sections 6500 through 6599.2 of the California Government Code, to oversee the operations and administration of the PROJECT, and exercise the PROJECT ownership rights; and

- D. WHEREAS, BAIFA is a Joint Powers Authority between the Metropolitan Transportation Commission (MTC) and the Bay Area Toll Authority (BATA) created in 2006, also created pursuant to the California Joint Exercise of Powers Act; and
- E. WHEREAS, the California Transportation Commission (CTC) authorized MTC to develop and operate toll lanes as described in the “Bay Area Express Lanes Public Partnership Application for High Occupancy Toll Lanes” on September 28, 2011; and
- F. WHEREAS, pursuant to California Streets and Highways Code Sections 143 and 149.7, MTC Resolution No. 4807, approved on March 27, 2013, and BAIFA Resolution No. 4, approved on April 24, 2013, MTC was authorized to delegate and BAIFA authorized to accept MTC’s CTC-granted authority to develop and operate toll lanes; and
- G. WHEREAS, on August 14, 2019, CTC granted SMCELJPA approval under Streets and Highway Code Section 149.7, as amended by Assembly Bill (AB) 194, to build and own the San Mateo County US 101 express lanes; and
- H. WHEREAS, an integrated project delivery team consisting of SMCTA, C/CAG, and Caltrans staff and consultants is designing and delivering the civil PROJECT components; and
- I. WHEREAS, the PARTIES desire that BAIFA and (i) its TOLL SYSTEM INTEGRATOR (TSI) for design, installation, and testing of the TOLL SYSTEM and (ii) its TOLL SYSTEM MANAGER for management of the TOLL SYSTEM INTEGRATOR, be responsible for design, installation, and testing of the TOLL SYSTEM and the planning, administrative tasks, and oversight required for implementation (as defined in Appendix A) for the PROJECT; and
- J. WHEREAS, the Southern Segment of the PROJECT (converting an existing HOV lane to an Express Lane from the Santa Clara County line to Whipple Avenue in San Mateo County) is scheduled for toll commencement prior to the toll commencement on the Northern Segment of the PROJECT (constructing a new Express Lane from Whipple Avenue in San Mateo County to Interstate 380 in San Mateo County), as shown in Appendix B, Table 2, *PROJECT Schedule (Estimated)*; and
- K. WHEREAS, this Agreement is effective through toll commencement of the entire PROJECT; and
- L. WHEREAS the PARTIES agree to cooperate in the development of an Operations and Maintenance Agreement; and
- M. WHEREAS, the PARTIES desire that SMCELJPA will approve tolling and violation policies that provide for seamless experience by travelers and consistency with the operations of the other Express Lanes in the region, including the Santa Clara Valley

Transportation Authority (VTA), Alameda County Transportation Commission (ACTC), and BAIFA facilities, as stated in SMCELJPA's CTC Application.

NOW, THEREFORE, the PARTIES agree as follows:

I. SMCELJPA, SMCTA and C/CAG AGREE

1. SMCTA and C/CAG shall each work with Caltrans to ensure the civil designer and civil contractor coordinates with the TSI for successful design of the TOLL SYSTEM by providing civil design, including design updates and change orders, express lane infrastructure; and all necessary owner insurance requirements.
2. SMCTA and C/CAG shall each be responsible for the design of the corridor fiber optic network that will run along US 101 connecting communications hubs, including fiber optic trunk line, pull boxes, cabinets, and conduit for the TOLL SYSTEM. SMCTA and C/CAG shall also include, in the design, the network equipment required to connect to the corridor fiber optic network to the HOST via the BACKHAUL NETWORK COMMUNICATIONS long-haul leased communication services.
3. SMCTA, C/CAG, and SMCELJPA each certify that there is no legal impediment to their engagement with BAIFA in this Agreement, and that there is no pending or threatened litigation which might in any way adversely affect the PROJECT or the ability of SMCTA, C/CAG, or SMCELJPA to deliver the PROJECT or their respective portions thereof.
4. SMCTA, C/CAG and SMCELJPA shall each comply with any and all applicable laws, statutes, ordinances, rules, regulations, and procedural requirements of any national, state, or local government, and of any agency of such government, including but not limited to BAIFA, that relate to or in any manner affect SMCTA's, C/CAG's, and SMCELJPA's performance of their obligations under this Agreement. SMCTA, C/CAG, and SMCELJPA agree to procure all necessary licenses and permits to operate as contemplated in this Agreement. BAIFA may request, and SMCTA, C/CAG, and SMCELJPA shall provide to BAIFA, evidence of the licenses and permits at any time.
5. SMCTA, C/CAG, and SMCELJPA shall each cooperate with BAIFA and Caltrans in the development and execution of any necessary or appropriate agreements to support the effective planning, development, approval and completion of work hereunder.
6. SMCTA and C/CAG shall each assist on resolving any potential issues between BAIFA's TSI, and other parties, including the PROJECT's civil construction contractor, during design, installation, and testing the TOLL SYSTEM.

7. SMCTA and C/CAG shall each cooperate with SMCELJPA as necessary and appropriate in carrying out their respective duties and obligations pursuant to this Agreement.
8. SMCELJPA shall be responsible for the cost of any HOST or ROADSIDE SYSTEM DESIGN CHANGES that are solely for the benefit of SMCELJPA (including but not limited to equity programs, custom reports, etc.). SMCELJPA shall review BAIFA's toll and violation policies, business requirements, the TSI agreement and change orders relevant to the PROJECT, and supporting design documents and provide concurrence by the date specified in Appendix B, Table 2.
9. SMCELJPA shall be responsible for the cost of any testing specific to the PROJECT for HOST or ROADSIDE SYSTEM DESIGN CHANGES that are not caused by SMCELJPA or BAIFA but are caused by an external party to this Agreement and deemed necessary by the PARTIES.
10. SMCELJPA shall have the authority to direct BAIFA to negotiate incentive payment(s) with the TSI to accelerate the toll commencement date after the baseline schedule has been approved by the SMCELJPA.

II. BAIFA AGREES

1. BAIFA shall provide project management services for the design, installation, and testing, and implementation of the PROJECT's TOLL SYSTEM.
2. BAIFA shall require that the TSI coordinates with the civil design contractor to facilitate successful PROJECT design.
3. BAIFA shall require TSI to name SMCELJPA, SMCTA, and C/CAG as additional insureds on TSI's insurance policies required by the TSI agreement with respect to work TSI performs on the PROJECT.
4. BAIFA shall provide all documentation to the SMCTA, C/CAG, and the SMCELJPA for the TOLL SYSTEM and BACKHAUL NETWORK COMMUNICATIONS design. BAIFA will consider comments from SMCTA, C/CAG, and the SMCELJPA on TOLL SYSTEM and BACKHAUL NETWORK COMMUNICATIONS documentation if provided within a reasonable time based on the project schedule. PARTIES agree to discuss in good faith any issues with respect to cost and schedule presented by the comments.
5. BAIFA shall provide the PROJECT's BACKHAUL NETWORK COMMUNICATIONS (as defined in Appendix A) design support and configuration design for the backhaul networking equipment, the installation and testing, and the leasing of a long-haul communications connection from the corridor fiber optic network to the HOST during installation and testing.

6. BAIFA shall require the TSI to design, install and test the TOLL SYSTEM to communicate with the BATA Regional FasTrak® system through the interface that is active at the time of tolling commencement.
7. BAIFA shall review the TSI's design and obtain Caltrans approval, and manage the TOLL SYSTEM installation and testing. BAIFA shall provide the TSI's TOLL SYSTEM test reports and test report comment logs, as part of the Monthly Report required in Section II (10) of the Agreement during installation and testing, per the TSI's testing schedule.
8. BAIFA shall comply with any and all applicable laws, statutes, ordinances, rules, regulations, and procedural requirements of any national, state, or local government, and of any agency of such government including but not limited to the other PARTIES that relate to or in any manner affect BAIFA's performance of its obligations under this Agreement. BAIFA agrees to procure all necessary licenses and permits to fulfill BAIFA's obligations as contemplated in this Agreement. Any of the PARTIES may request, and BAIFA shall provide to the PARTIES, evidence of the licenses and permits at any time.
9. BAIFA shall perform the scope of work identified in Appendix A, *San Mateo County US-101 Express Lane Project Scope of Work*, attached hereto and incorporated herein by this reference. In the event SMCELJPA, SMCTA, or C/CAG request software changes, PARTIES agree to negotiate in good faith and execute an amendment to this Agreement, if needed, with respect to costs. BAIFA shall provide the technical specification and a cost estimate which PARTIES must agree upon before the work is performed.
10. BAIFA shall provide a Monthly Report (in a format and with content mutually agreed upon by the PARTIES) and supporting documentation to substantiate status, progress (percent complete), budget and activity-based expenditures, quality management, risk management, and other practices or processes used by BAIFA to plan, design, deliver, operate and maintain the TOLL SYSTEM. The current version of the TSI project schedule, as approved by BAIFA, shall be provided or referenced in the Monthly Report.
11. BAIFA shall notify SMCELJPA of any HOST or ROADSIDE SYSTEM DESIGN CHANGES. BAIFA shall be responsible for the cost of any HOST or ROADSIDE DESIGN CHANGES that are at the request of BAIFA.
12. If BAIFA and SMCELJPA mutually desire to pursue liquidated damages for delays of toll commencement of either segment of the PROJECT (as agreed to in the approved baseline schedule), BAIFA shall exhaust all reasonable means to enforce the provision of the BAIFA and TSI agreement for liquidated damages, using the daily amount assigned in the BAIFA and TSI agreement, for each day the PROJECT is delayed after the toll commencement date agreed to by the PARTIES in the baseline schedule. Payment(s) received for damages will be split; BAIFA will receive 25% and SMCELJPA will receive 75%.

III. IT IS MUTUALLY AGREED

1. This Agreement shall commence on the date it is executed by all PARTIES and shall remain in effect until the PROJECT design, installation, testing, and implementation is complete, and Caltrans has issued a toll system implementation encroachment permit for BAIFA and the TSI. PARTIES agree to negotiate in good faith and execute an amendment to this Agreement to add in TOLL SYSTEM installation, testing, and implementation tasks before Caltrans issues said encroachment permit.
2. Any PARTY shall have the right to terminate this Agreement at any time for convenience upon sixty (60) days advance written notice to the other PARTIES. All outstanding items of performance relating to this Agreement shall be settled and transitioned within one year of the effective date of termination.
3. BAIFA shall be responsible for the TOLL SYSTEM's design and PROJECT start-up for a maximum allotment of \$3,000,000 as shown in Appendix B, Table 1A of this Agreement, attached hereto and incorporated herein by reference. Any design line item funds deemed by BAIFA to be in excess of the necessary funds to fulfill the obligations of the Agreement shall be transferred to Toll System Contingency / Risk Reserve established by the inclusion of Appendix B, Table 1A to this Agreement.
4. BAIFA shall be responsible for the TOLL SYSTEM's installation, testing, and implementation for a maximum allotment of \$38,840,000 as shown in Appendix B, Table 1A to this Agreement. Any line item funds deemed by BAIFA to be in excess of the necessary funds to fulfill the obligations of the Agreement shall be transferred to Toll System Contingency / Risk Reserve established by the inclusion of Appendix B, Table 1A to this Agreement.
5. Funds from the Toll System Contingency/Risk Reserve shall not be used towards cost overruns on other line items in Appendix B, Table 1A until actions consistent with the Change Management Board have been undertaken as specified elsewhere in this Agreement.
6. SMCTA shall perform those tasks identified in Appendix B, Table 1B in cooperation with BAIFA and invoice BAIFA monthly, in mutually agreed upon format, for reimbursement of the related expenditures.
7. BAIFA shall reimburse SMCTA for the performance of tasks with a maximum allotment of **\$3,160,000** as shown in Appendix B, Table 1B.
8. The tasks identified in Appendix B, Table 1C shall be funded up to a maximum allotment of **\$1,813,508** with local funds provided through the SMCTA to whichever PARTY to this Agreement incurs the cost to perform them. Upon initial execution of this Agreement, the responsible agency for these tasks shall be the SMCTA.

9. The maximum allotment of funding provided for the PROJECT under this Agreement is **\$46,813,508**, as shown in Appendix B, Table 1D.
10. Each PARTY shall ensure the coordination between their respective contractors to facilitate successful installation, testing, and implementation of the TOLL SYSTEM by providing all necessary documentation that impacts the express lane infrastructure, including but not limited to shop drawings, redlines, as-builts, change orders, etc.; and all necessary owner insurance requirements. BAIFA shall require the TSI to be responsible for providing its own lane closures, and coordinate with the civil contractor when possible to maximize the value of the lane closures. Each PARTY agrees to complete checklists for site readiness before turning over each PROJECT site to another party, and each PARTY agrees to document and coordinate requests and responses for information during construction in a timely manner.
11. If there are excess funds, as shown in Appendix B , Tables 1A and 1B, remaining upon completion of the PROJECT, the PARTIES may negotiate on spending excess funds on other related San Mateo US 101 Express Lane tasks, including but not limited to those shown in Appendix B, Table 1C, capitalized operations and maintenance expenses, or relief of debt related to the San Mateo US 101 Express Lane.
12. All PARTIES agree to establish a Project Management Team (PMT) comprised of the Deputy Director, Project and Program Management of Caltrans District 4, the C/CAG Executive Director, the Chief Officer of SMCTA and the MTC Director, Field Operations and Asset Management. The PMT will convene as required to monitor progress and address the issue(s) at hand. The role of the PMT will be to coordinate technical, policy, and funding aspects of the project. The PMT will serve as an intermediary between the implementation staff and the already established Executive Steering Committee (ESC) for the 101 Corridor. PMT responsibilities will include:
 - Review scope, cost, schedule, and risk changes as requested by the implementation staff and the Project Managers and to present changes to the ESC as appropriate.
 - Ensure adherence to the defined scope, schedule and budget.
 - Identify budget overruns early to secure funding, if needed, so as to not adversely impact schedule.
 - Negotiate and determine new funding sources for cost overruns.
 - Approve the PROJECT's baseline schedule and toll commencement dates.
 - Approve changes to the scope (including DESIGN CHANGES), budget and schedule.
 - Ensure the Project Managers are appropriately resourced and that resources are properly utilized.

- Reallocate funds between Tables 1A and 1B, as shown in Appendix B to this Agreement, based on revised responsibilities for scope, including but not limited to customer education.
13. All PARTIES agree to establish a Change Management Board (CMB) with at least one representative from each PARTY to fulfill the responsibilities as established by the PMT. The CMB shall meet no less frequently than once per month to monitor progress, report on changes, and ensure changes are being resolved at the lowest level. The CMB shall manage the reallocation of the contingency fund to and from the Toll System Contingency / Risk Reserve line item (Appendix B, Table 1A), and such changes will be reported to the PMT.
 14. All PARTIES acknowledge that certain changes may be elevated by the CMB to the PMT when matters of the baseline scope, schedule, and cost are at risk, including DESIGN CHANGES and changes to toll commencement dates, supplements to line item budgets and Toll System Contingency/Risk Reserve, or any change to public facing policies.
 15. All PARTIES agree to cooperate with one another to accomplish the purposes of this Agreement, and to confer in advance on policy matters and proposed changes in PROJECT scope, cost and schedule as it relates to this Agreement.
 16. Each PARTY agrees to respond timely to all reasonable requests from another PARTY for any rights, material, and information as may be required by the requesting PARTY to successfully perform its obligations under this Agreement. Each PARTY further agrees to promptly provide documentation, reports, and information pursuant to such reasonable requests. Notwithstanding this commitment, the PARTIES may withhold material and information subject to any claims of privilege or limitations any PARTY may have as a result of agreements with other persons or entities.
 17. Any substantive material changes in the activities to be performed under this Agreement, or in the terms thereof, shall be incorporated in written amendments, which shall specify the changes in work performed and any adjustments in compensation and schedule. All amendments shall be executed by each PARTY's Executive Director/Executive Officer, or a designated representative.
 18. No PARTY nor any board member, commissioner, officer, agent or employee thereof is responsible for any injury, damage or liability occurring by reason of anything done or omitted to be done by the other PARTIES and/or their agents under or in connection with any work, authority, or jurisdiction conferred upon the PARTIES under this Agreement.
 19. It is understood and agreed that each PARTY will fully defend, indemnify, and save harmless the other PARTIES and all of their board members, commissioners, officers, agents, and employees from all claims, suits, or actions of every name, kind, and

description brought forth under, but not limited to, tortious, contractual, inverse condemnation, or other theories or assertions of liability occurring by reason of anything done or omitted to be done by the indemnifying PARTY and/or its agents under this Agreement.

20. Except as specifically provided herein, nothing in the provisions of this Agreement is intended to create duties or obligations to or rights in third parties not parties to this Agreement.
21. No PARTY shall assign this Agreement, or any part thereof without the other PARTIES' prior written consent; any attempts to assign this Agreement without the other PARTIES' prior written consent shall be void and unenforceable.
22. All notices or other communications to any PARTY(IES) by another shall be deemed given when made in writing and either physically delivered, mailed, or e-mailed as an attachment to such PARTY(IES) at their respective addresses as follows. Formal notice may not be provided by email alone. Any PARTY may revise or update its addressee information provided in this Section by providing notice pursuant to this Section.

To BAIFA: Attention: Jim Macrae
Bay Area Infrastructure Financing Authority
375 Beale Street, Suite 800
San Francisco, CA 94105
Email: jmacrae@bayareametro.gov
Phone: (415) 778-6714

To SMCTA: Attention: Joseph Hurley
San Mateo County Transportation Authority
1250 San Carlos Ave.
San Carlos, CA 94070
Email: hurleyj@samtrans.com
Phone: (650) 508-7942

To C/CAG: Attention: Van Dominic Ocampo
City/County Association of Governments of San Mateo County
555 County Center, 5th Floor
Redwood City, CA 94063
Email: vocampo@smcgov.org
Phone: (650) 599-1460

To SMCELJPA: Attention: SMCELJPA Policy Program Manager
San Mateo County Express Lanes Joint Powers Authority
555 County Center, 5th Floor
Redwood City, CA 94063

Email: vocampo@smcgov.org
Phone: (650) 599-1460

With a copy to: Attention: SMCELJPA Executive Council
San Mateo County Express Lanes Joint Powers Authority
555 County Center, 5th Floor
Redwood City, CA 94063
Email: slwong@smcgov.org and chana@samtrans.com
Phone: Sandy Wong: (650) 599-1409
and April Chan: (650) 508-6228

23. The PARTIES may amend this Agreement for future phases of PROJECT.
24. Any PARTY's failure to exercise or delay in exercising any right or remedy under this Agreement shall not constitute a waiver of such right or remedy or any other right or remedy set forth herein. Any PARTY's waiver of any right or remedy under this Agreement shall not be effective unless made in a writing duly executed by an authorized officer of the PARTY, and such waiver shall be limited to the specific instance so written and shall not constitute a waiver of such right or remedy in the future or of any other right or remedy under this Agreement.
25. In case of a dispute over the meaning or performance of this Agreement, the PARTIES will first attempt to resolve such dispute at the PROJECT team level. If they cannot resolve the dispute themselves, the Executive Director / Executive Officer of each of the PARTIES will attempt to negotiate a resolution. If the PARTIES do not reach a resolution, the PARTIES' legal counsel will initiate mediation. The PARTIES agree to participate in mediation in good faith and will share equally in its costs.
- Neither the dispute nor the mediation process relieves PARTIES from full and timely performance of the Agreement's scope in accordance with its terms. However, if any PARTY stops fulfilling its obligations, any other PARTY may seek equitable relief to ensure that the work continues.

Except for equitable relief, no PARTY may file a civil complaint until after mediation, or forty-five (45) calendar days after filing the written mediation request, whichever occurs first.

The PARTIES maintain the ability to pursue alternative or additional dispute remedies if a previously selected remedy does not achieve resolution.

26. This Agreement, including all attachments, constitutes the complete agreement between the PARTIES and supersedes any prior written or oral communications. The PARTIES represent that in entering into the Agreement they have not relied on any previous representations, inducements, or understandings of any kind or nature. This Agreement may be modified or amended only by written instrument signed by all of the PARTIES.

In the event of a conflict between the terms and conditions of this Agreement and the attachments, the terms of this Agreement will prevail.

27. If any provision of this Agreement is determined by a court of competent jurisdiction to be invalid or unenforceable, the remainder of this Agreement shall not be affected, but shall remain binding and effective as against the PARTIES.
28. This Agreement shall be governed by the laws of the State of California.
29. Each individual executing this Agreement on behalf of a PARTY represents and warrants that he or she is duly authorized to execute this Agreement on behalf of said PARTY and that this Agreement is binding upon the PARTY in accordance with its terms.

This Agreement constitutes the entire agreement of the PARTIES and there are no other oral or extrinsic understandings of any kind. This Agreement may not be altered, amended or modified in any manner except by a subsequent written instrument duly executed by all of the PARTIES.

IN WITNESS WHEREOF, this Agreement has been executed by the PARTIES hereto on the date first above written.

**BAY AREA INFRASTRUCTURE AND
FINANCING AUTHORITY**

Therese W. McMillan
Executive Director

Date: _____

**SAN MATEO COUNTY EXPRESS
LANES JOINT POWERS AUTHORITY**

Alicia C. Aguirre
Chair

Date: _____

**SAN MATEO COUNTY
TRANSPORTATION AUTHORITY**

Jim Hartnett
Executive Director

Date: _____

**CITY/COUNTY ASSOCIATION OF
GOVERNMENTS OF SAN MATEO
COUNTY**

Marie Chuang
Chair

Date: _____

APPENDIX A

San Mateo County US-101 Express Lane Project Scope of Work

DEFINITIONS

Unless the context otherwise specifies or requires an alternate meaning, for the purposes of this Appendix and the associated Agreement (AGREEMENT), the following terms shall have the meaning as set forth below:

BACKHAUL NETWORK COMMUNICATIONS is the fiber optic-based communications network utilized by the express lanes to transport data within express lane corridors, between express lanes corridor and HOST data centers. The network is made up of two parts: i) the corridor fiber optic network that runs along US 101 connecting to communication hubs; and ii) BAIFA's long-haul leased communication services (e.g. BART fiber and AT&T lease lines) connecting the corridor fiber optic network to the HOST. The PARTIES agree to negotiate in good faith and execute an amendment to this Agreement with respect to the ownership of the corridor's backhaul network infrastructure, including fiber optic trunk line, pull boxes, cabinets, and network equipment within cabinets, upon acceptance and completion. Leased services to BAIFA, HOST and Regional Operation Center data centers are not included. BAIFA owns all associated backhaul software and network monitoring system licenses.

DESIGN CHANGES are changes made to the TOLL SYSTEM during the implementation phase that require deliberate planning and work on the part of BAIFA and TSI to manage the potential impacts to core services, risk, cost, and schedule.

HOST includes all computer systems, software, and servers that process traffic data from the ROADSIDE SYSTEM to determine the toll and post transactions to FasTrak® customer accounts and run all system reports. The HOST shall be owned by BAIFA.

ROADSIDE SYSTEM are all systems located along the roadside in the express lane corridor that are required to support tolling, namely the system or systems specifically installed to collect tolls electronically and monitor the flow of traffic and/or communicate with motorists. ROADSIDE SYSTEM includes Automatic Vehicle Identification system, Automatic Vehicle Detection, Violation Enforcement System (VES), Variable Toll Message Sign (VTMS) system; and is comprised of inventory such as readers, lane controllers, software, lateral fiber, conduits, cameras, toll-related sign panels/structures, Variable Toll Message Signs (VTMS), gantries, and UPS cabinets and service enclosures added specifically for toll-related operations.

ROADSIDE SYSTEM does not include the fixed non-toll related signage, such as, traffic signs, delineators, and road markings. The PARTIES agree to negotiate in good faith and execute an amendment to this Agreement with respect to ownership of the ROADSIDE SYSTEM.

TOLL SYSTEM are all systems (including HOST and ROADSIDE SYSTEM) specifically installed to collect tolls electronically and monitor the flow of traffic and/or communicate with motorists. TOLL SYSTEM includes Automatic Vehicle Identification system, Automatic Vehicle Detection, Violation Enforcement System (VES), Variable Toll Message Sign (VTMS) system; and is comprised of inventory such as readers, computer systems, software, and servers that process and post transactions to FasTrak[®] customer accounts, cameras, toll-related sign panels/structures, controller and universal power supply cabinets and service enclosures added specifically for toll-related operations. TOLL SYSTEM does not include the fixed non-toll related signage, such as, traffic signs, delineators, and road markings.

TOLL SYSTEM INTEGRATOR (TSI) is BAIFA's contractor responsible for designing, developing, installing, testing, and maintaining the TOLL SYSTEM. All applicable terms of the agreement between BAIFA and TransCore, LP for Express Lane Network Toll System Integration & Maintenance, executed August 25, 2014, including change orders and amendments, are conveyed through BAIFA on behalf of SMCELJPA.

TOLL SYSTEM MANAGER is the consultant responsible for systems planning and TOLL SYSTEM oversight as specified in Sections 1.1, 1.2, and 1.3 below. All applicable terms of the agreement between BAIFA and WSP for Express Lanes Program Advisor, executed March 15, 2018, including change orders and amendments, are conveyed through BAIFA on behalf of SMCELJPA.

The following tasks represent BAIFA's scope of work under the AGREEMENT:

1. Express Lane Design

Task 1 includes all the staff time for project start-up, planning and administrative tasks and delivery of TOLL SYSTEM design phase. This includes both BAIFA and their consultant's time. This Scope and accompanying budget are for the project start-up, planning and administrative tasks and for the design phase of work along with execution of BART agreement and FCC license.

1.1. Systems Manager

1.1.1. Systems Planning & Project Start-up

This task addresses project support provided by BAIFA for contracts and agreements and early planning. Specific tasks to be performed are as follows:

- Review and support CTC Application, Concept of Operations, and Systems Engineering Management Plan being completed by SMCELJPA
- Perform project management tasks including budgeting, schedule review, etc.
- Review & support of Caltrans longitudinal variance
- Participate in the development of agreements including but not limited to: Backhaul Operation and Maintenance, Caltrans Toll System Oversight needed for design right of way and TOLL SYSTEM construction phases of work
- Support the effort to secure BAIFA encroachment permit from Caltrans and rider for the TSI
- Negotiate TSI Contract change order to design the TOLL SYSTEM
- Implement contract amendment and task order for Toll System Manager (TSM)
- Review of TOLL SYSTEM Design and coordination amongst stakeholders
- Coordinate with SMCTA, C/CAG and SMCELJPA staff and contractors including attendance at meetings and conference calls, to inform design and project management
- Attend PROJECT meetings as needed
- Provide Monthly Progress Reports which include schedule, expenditure, and budget updates

1.1.2. Toll System Oversight

This work specifically addresses support of the express lanes TOLL SYSTEM. It includes: TOLL SYSTEM strategic advice, TSI management, final design and project controls support for TSI activities.

1.1.2.1. Strategic Advice

This task covers, as-needed, technical and strategic advice to support SMCTA, C/CAG and SMCELJPA with the planning and design of express lanes. Strategic advice may take the form of proactive or reactive advice – proactive advice shall be in the form of recommendations of concepts and implementation techniques and reactive advice shall be in response to issues raised by SMCTA, C/CAG and SMCELJPA.

1.1.2.2. Design

This work includes verification of TOLL SYSTEM requirements and applicability to the PROJECT, design review, and validation for the addition of new express lane segments and

TOLL SYSTEM design changes for both HOST and ROADSIDE SYSTEM. It includes review of TSI's requirements traceability matrix for thoroughness and accuracy.

1.1.2.3. TSI Controls

1. Cost – Develop and analyze engineer's estimates and other types of cost estimates;
2. Schedule – Develop detailed project schedule closely coordinating with the civil contract, validate reasonability and risk; monitor progress; make recommendations;
3. Change – Analyze the impact of proposed changes to the TOLL SYSTEM in context of the budget, the schedule and other factors;
4. Risk – Identify, assess and manage/mitigate risks related to the PROJECT's schedule and costs;
5. Quality – Provide quality assurance review for TSI-prepared deliverables;
6. Documents/deliverables – Maintain and coordinate a review/approval process; maintain task log and assign/track assignments, maintain logs to manage TSI deliverables and team activities, review and provide feedback on all draft and final documents/deliverables, provide detailed comments as requested; lead issue resolution; track completion according to contract, schedule and other requirements; manage version control and official records-keeping, and maintain Box account.

1.2. BACKHAUL DESIGN

This task addresses support for BACKHAUL NETWORK COMMUNICATIONS design. This task is for staff time only. The specific tasks include:

- Corridor fiber optic logical design and backup support during the Design Phase
- Oversight of corridor fiber optic network integration during the Civil Construction Phase
- Execute the Millbrae to Oakland BART fiber agreement or third-party arrangement for the long-haul leased communications network between BAIFA and BART
- Design logical communications network connecting corridor fiber optic network to HOST

1.3. Amendment/Contract Development

This task includes BAIFA contract staff time to support the TSI change order and task orders for the Design and Start-up Phases.

2. TOLL SYSTEM Design

Task 2 includes all work by TSI and necessary support for the TOLL SYSTEM design.

2.1. Project Management

This task includes management of TOLL SYSTEM Design by TSI and continual coordination activities, meetings and communications with the SMCELJPA, C/CAG and SMCTA project team and contractors. TSI will file for the necessary Federal Communications Commission (FCC) site licenses in order to operate automatic vehicle identification equipment to read FasTrak[®] transponders.

2.2. Design

This task includes the TOLL SYSTEM design by TSI for the project, specifications, and estimate (PS&E) for submission to Caltrans to secure the required permit(s) for implementation, constructions, and installation.

Minor DESIGN CHANGES may be accommodated as part of this scope at the request of SMCELJPA, if contingency funds are available.

3. Express Lane Installation, Testing, and Implementation

Task 3 includes all the staff time for installation and testing, and administrative tasks for implementation and delivery of TOLL SYSTEM installation and testing phase. This includes both BAIFA and their consultant's time.

3.1. Toll System Oversight

This task covers the continued scope of Task 1.1.2 through TOLL SYSTEM testing and installation.

3.1.1. Testing

Prepare, support and oversee TOLL SYSTEM testing including regression testing, site commissioning testing, new segment end to end testing, segment operations testing, system acceptance, and any system retests as necessary. Coordinate and lead meetings to review test protocols, give feedback on test plans, and verify that individual design requirements are adequately tested. Support the TSI to create sample data sets that comprehensively test TOLL SYSTEM functionality.

3.1.2. Customer Education

This task includes support for and reviews of the Customer Education effort. It is assumed that the Customer Education will be led by SMCELJPA. BAIFA will provide any preexisting customer education material to SMCELJPA. Once the level of effort is determined for BAIFA's support of customer education, the CMB shall allocate funds from Table 1B to Table 1A in Appendix B.

3.1.3. Operations Planning

This task includes work that supports operational readiness when opening new express lanes or preparing for the implementation of significant changes in tolling technology or business requirements.

3.1.4. Toll Systems Construction Management

This task includes oversight of the Toll System field implementation, including overseeing the overall construction schedule, facilitating inspection, assisting SMCELJPA, SMCTA, and C/CAG with any change order review and development, claims analysis, and coordination of the systems integration work with ongoing construction contracts. Specific tasks to be performed include:

- Monitor contractor's operations
- Identify, negotiate and resolve potential conflicts, issues and adverse impacts to the contract
- Discuss design and specification changes with BAIFA and obtain concurrences
- Monitor contractor's construction schedule
- Assist in administering the traffic control plans
- Manage construction management team field inspection efforts
- Coordinate with project stakeholders and ongoing projects
- Attend weekly Caltrans Coordination meetings on behalf of BAIFA and TSI
- Provide inspection services for toll system infrastructure construction and equipment installation, as well as for communications network and power tie-ins to the TOLL SYSTEM.
- Ensure that the TSI follows installation plans and meets quality standards.
- Track and report progress, identify issues and coordinate and recommend solutions.

4. Express Lane Capital Cost

4.1. TSI Contract

This task includes the TSI project management, equipment, installation commissioning and testing through Toll Commencement. BAIFA will provide the final change order with the TSI for the PROJECT to SMCELJPA.

4.2. Backhaul

This work includes the ancillary hardware and early operating cost for deployment of Backhaul, including:

- Backhaul Network design and installation support
- 3rd party communications infrastructure and services (Millbrae to Oakland BART fiber, AT&T special construction fees, wireless out of band service)
- Storage upgrade for Regional Customer Service Center (RCSC) file transaction server

4.3. RCSC Start Up

The RCSC, though a contract with Conduent, is responsible for processing all express lane transactions and posting to customer accounts or issuing violations. During the installation, testing, and implementation phase, integration into the RCSC system and associated costs and services will be negotiated by BAIFA on behalf of SMCELJPA to bring the PROJECT online, including:

- Registration of new Clean Air Vehicles
- Training of RCSC Staff
- Website updates
- Conduent Software configuration
- End-to-end testing of integration (as defined in the interface control document) between the TOLL SYSTEM and the RCSC system
- Sample documentation for RCSC performance, customer, and revenue reports

BAIFA shall provide the draft and final change order negotiated with BATA/Conduent for the PROJECT.

4.4. Regional Operations Center Upgrades

The Regional Operations Center is where operators monitor the Express Lane Operations. The capital cost includes the addition of video monitors and workstations to support the PROJECT.

APPENDIX B

**San Mateo County US-101 Express Lane Project Estimated Budget and Schedule for
 Project Start-up, Design, Installation, Testing, and Implementation**

Table 1A – PROJECT (Estimated) Budget for Start-up and Design, and Installation, Testing, and Implementation

Scope Area	BAIFA Estimate
1. Express Lane Design	\$ 1,175,000
1.1 Systems Manager (includes BAIFA Staff)	\$ 853,237
1.2 Backhaul Design	\$ 200,000
1.3 Amendment/Contract Development	\$ 121,763
2. Toll System Design	\$ 1,825,000
Total Design	\$ 3,000,000
3. Express Lane Installation and Testing	\$ 3,673,196
3.1 Systems Manager (includes BAIFA Staff)	\$ 3,673,196
4. Express Lane Capital Cost	\$ 35,166,804
4.1 TSI Contract	\$ 29,828,895
4.2 Backhaul	\$ 1,340,000
4.3 RCSC Start Up	\$ 1,200,000
4.4 Regional Operations Center Upgrades	\$ 100,000
4.5 Toll System Contingency / Risk Reserve	\$ 2,697,909
Total Installation and Testing Amendment 1	\$ 38,840,000
Total	\$ 41,840,000

Table 1B – PROJECT Budget for Scope funded by BAIFA and Administered by SMCELJPA

Scope Area	Budget
1. Customer Education	\$ 1,160,000
2. Before and After Study	\$ 800,000
3. TSI COZEEP	\$ 1,200,000
Total	\$ 3,160,000

Table 1C – PROJECT Budget for Items funded with local funds and yet to determined which PARTY administers.

Scope Area	Budget
1. Caltrans Oversight	\$ 1,100,000
2. Toll System Contingency / Risk Reserve	\$ 513,508
3. AT&T and PG&E Start Up Costs	\$ 200,000
Total	\$ 1,813,508

Table 1D – Total Four-Party Agreement Budget

Referenced Table	Budget
1. Table 1A	\$ 41,840,000
2. Table 1B	\$ 3,160,000
3. Table 1C	\$ 1,813,508
Total	\$ 46,813,508

Table 2 – PROJECT Schedule (Estimated)

Task	Start	Finish
BAIFA, SMCELJPA_C/CAG and SMCTA Agreement	May-19	Oct-19
Toll System Manager Contract Amendment	Jun-19	Sept-19
TSI Contract Amendment for Design	Jun-19	Oct-19
TSI Design – Southern Segment	Sept-19	Feb-20
TSI Design – Northern Segment	Feb-20	Jul-20
SMCELJPA, C/CAG, and SMCTA concur with BAIFA policies, business requirements, and TSI requirements per Section I (8) of this Agreement	Jun-20	Sept-20
TSI Toll Commencement – Southern Segment		Sep-21
TSI Toll Commencement – Northern Segment		Dec-22