



Metropolitan Transportation Commission

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105

Meeting Agenda

Operations Committee

Committee Members:

Dave Cortese, Chair Damon Connolly, Vice Chair

*Anne W. Halsted, Sam Liccardo, Jake Mackenzie,
David Rabbitt, Warren Slocum, James P. Spering*

Non-Voting Members: Dorene M. Giacomini and Janea Jackson

Friday, April 12, 2019

9:00 AM

Board Room - 1st Floor

*** PLEASE NOTE MEETING TIME ***

This meeting is scheduled to be webcast live on the Metropolitan Transportation
Commission's Website: <http://mtc.ca.gov/whats-happening/meetings>
and will take place at 9:00 a.m.

1. Roll Call / Confirm Quorum

*Quorum: A quorum of this committee shall be a majority of its regular non-ex-officio
voting members (5).*

2. Pledge of Allegiance

3. Compensation Announcement - Clerk of the Committee

4. Consent Calendar

- 4a. [19-0266](#) Minutes of the March 8, 2019 Meeting

Action: Committee Approval

Attachments: [4a OPS Minutes Mar 2019.pdf](#)

- 4b. [19-0260](#) Funding Agreement Amendment - Regional Transit Information
Displays/Wayfinding Kiosks Operations & Maintenance: Alameda-Contra
Costa Transit District (AC Transit) (\$873,000)

Action: Committee Approval

Presenter: Jay Stagi

Attachments: [4b AC Transit Funding Agreement Amendment.pdf](#)

- 4c. [19-0262](#) Contract Amendment - 511 San Francisco Bay Area System Integrator, Data Management and Dissemination, and Interactive Voice Response (IVR) Phone System: Iteris, Inc. (\$2,600,000)
- Action: Committee Approval
- Presenter: Brooke Fotheringham
- Attachments: [4c 511 System Integrator Contract Amendment V2.pdf](#)
- 4d. [19-0292](#) Clipper® Contract Amendment - Next Generation Clipper System Advisor Contract: IBI Group (IBI) (\$4,000,000)
- Action: Committee Approval
- Presenter: Jason Weinstein
- Attachments: [4d IBI Contract Amendment v3.pdf](#)

5. Approval

- 5a. [19-0263](#) Vehicle Occupancy Enforcement Program:
- i. Contract Amendment - HOV Violation Enforcement Services: California Highway Patrol (CHP) (\$600,000)
Request for approval of funds for CHP to perform vehicle occupancy enforcement on I-80, subject to approval of the FY 2019-20 BATA budget.
- ii. Smartphone App-Based and Camera-Based Occupancy Verification Systems Update
Update on key RFI finding and discussion of next steps.
- Action: i. Committee Approval
ii. Information
- Presenter: Pierce Gould
- Attachments: [5a CHP I-80 Contract Amendment Occupancy Verification Update V4.pdf](#)

6. Public Comment / Other Business

7. Adjournment / Next Meeting

The next meeting of the Operations Committee will be Friday, May 10, 2019 at 9:35 a.m. at the Bay Area Metro Center, 375 Beale Street, San Francisco, CA.

Public Comment: The public is encouraged to comment on agenda items at Committee meetings by completing a request-to-speak card (available from staff) and passing it to the Committee secretary. Public comment may be limited by any of the procedures set forth in Section 3.09 of MTC's Procedures Manual (Resolution No. 1058, Revised) if, in the chair's judgment, it is necessary to maintain the orderly flow of business.

Meeting Conduct: If this meeting is willfully interrupted or disrupted by one or more persons rendering orderly conduct of the meeting unfeasible, the Chair may order the removal of individuals who are willfully disrupting the meeting. Such individuals may be arrested. If order cannot be restored by such removal, the members of the Committee may direct that the meeting room be cleared (except for representatives of the press or other news media not participating in the disturbance), and the session may continue.

Record of Meeting: Committee meetings are recorded. Copies of recordings are available at a nominal charge, or recordings may be listened to at MTC offices by appointment. Audiocasts are maintained on MTC's Web site (mtc.ca.gov) for public review for at least one year.

Accessibility and Title VI: MTC provides services/accommodations upon request to persons with disabilities and individuals who are limited-English proficient who wish to address Commission matters. For accommodations or translations assistance, please call 415.778.6757 or 415.778.6769 for TDD/TTY. We require three working days' notice to accommodate your request.

可及性和法令第六章: MTC 根據要求向希望來委員會討論有關事宜的殘疾人士及英語有限者提供服務/方便。需要便利設施或翻譯協助者，請致電 415.778.6757 或 415.778.6769 TDD / TTY。我們要求您在三個工作日前告知，以滿足您的要求。

Acceso y el Titulo VI: La MTC puede proveer asistencia/facilitar la comunicación a las personas discapacitadas y los individuos con conocimiento limitado del inglés quienes quieran dirigirse a la Comisión. Para solicitar asistencia, por favor llame al número 415.778.6757 o al 415.778.6769 para TDD/TTY. Requerimos que solicite asistencia con tres días hábiles de anticipación para poderle proveer asistencia.

Attachments are sent to Committee members, key staff and others as appropriate. Copies will be available at the meeting.

All items on the agenda are subject to action and/or change by the Committee. Actions recommended by staff are subject to change by the Committee.

MTC's Chair and Vice-Chair are ex-officio voting members of all standing Committees.



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 19-0266 **Version:** 1 **Name:**
Type: Minutes **Status:** Consent
File created: 3/7/2019 **In control:** Operations Committee
On agenda: 4/12/2019 **Final action:**
Title: Minutes of the March 8, 2019 Meeting
Sponsors:
Indexes:
Code sections:
Attachments: [4a OPS Minutes_Mar 2019.pdf](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:
Minutes of the March 8, 2019 Meeting

Recommended Action:
Committee Approval

Attachments:



Metropolitan Transportation Commission

Meeting Minutes - Draft

Operations Committee

Agenda Item 4a

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105

Friday, March 8, 2019

9:40 AM

Board Room - 1st Floor

1. Roll Call / Confirm Quorum

Present: 4 - Chair Cortese, Commissioner Connolly, Commissioner Papan and Commissioner Spering

Absent: 3 - Commissioner Halsted, Commissioner Liccardo and Commissioner Rabbitt

Non-Voting Member Present: Commissioner Giacopini

Ex Officio Voting Members Present: Commission Chair Haggerty and
Commission Vice Chair Pedroza

Ad Hoc Non-Voting Members Present: Commissioner Josefowitz and Commissioner Worth

2. Consent Calendar

Approval of the Consent Calendar

Upon the motion by Commissioner Spering and second by Commissioner Connolly, the Consent Calendar was unanimously approved by the following vote:

Aye: 4 - Chair Cortese, Commissioner Connolly, Commissioner Papan and Commissioner Spering

Absent: 3 - Commissioner Halsted, Commissioner Liccardo and Commissioner Rabbitt

2a. [19-0119](#) Minutes of the February 8, 2019 Meeting

Action: Committee Approval

Attachments: [2a OPS Minutes_Feb 2019.pdf](#)

2b. [19-0146](#) Clipper® Contract Change Order - Means-Based Pilot Program: Cubic Transportation Systems, Inc. (\$1,000,000)

Action: Committee Approval

Presenter: Lysa Hale

Attachments: [2b Clipper Contract Action Means-based Pilot Program.pdf](#)

3. Public Comment / Other Business

4. Adjournment / Next Meeting

The next meeting of the Operations Committee will be Friday, April 12, 2019 at 9:35 a.m. at the Bay Area Metro Center, 375 Beale Street, San Francisco, CA.



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 19-0260 **Version:** 1 **Name:**

Type: Contract **Status:** Consent

File created: 3/7/2019 **In control:** Operations Committee

On agenda: 4/12/2019 **Final action:**

Title: Funding Agreement Amendment - Regional Transit Information Displays/Wayfinding Kiosks
Operations & Maintenance: Alameda-Contra Costa Transit District (AC Transit) (\$873,000)

Sponsors:

Indexes:

Code sections:

Attachments: [4b AC Transit Funding Agreement Amendment.pdf](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:
Funding Agreement Amendment - Regional Transit Information Displays/Wayfinding Kiosks
Operations & Maintenance: Alameda-Contra Costa Transit District (AC Transit)
(\$873,000)

Presenter:
Jay Stagi

Recommended Action:
Committee Approval

Attachments:



METROPOLITAN
TRANSPORTATION
COMMISSION

Agenda Item 4b
Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Operations Committee

DATE: April 5, 2019

FR: Executive Director

W.I. 2655

RE: Funding Agreement Amendment – Regional Transit Information Displays/Wayfinding Kiosks Operations & Maintenance: Alameda-Contra Costa Transit District (AC Transit) (\$873,000)

This memorandum requests Committee approval of an amendment in the amount of \$873,000 and extension of the time of performance through June 30, 2022 to MTC's funding agreement with AC Transit for transit information displays and wayfinding kiosks operations and maintenance.

Background

Established in 2008, the Hub Signage Program (HSP)'s goal is to make it easier for riders to transfer between connecting transit operators at regionally significant stations by creating a consistent 'look' and 'feel' and by giving riders actionable information. The need for the HSP was identified in earlier MTC planning efforts including the Transit Connectivity Report (2005) and the Transit Connectivity Plan (2006). The initial implementation of the HSP invested in improved wayfinding and transit information by installing new static and real-time signs that follow a regional standard at 24 regional transit hubs. The Transit Connectivity Plan further called for consistent and coordinated maintenance and updating of regional transit information installed by MTC.

Transit Information Operations & Maintenance (O & M) at Regional Transit Hubs

Consistent with MTC Resolution No. 3866 requirements, MTC has taken on operations and maintenance responsibilities and initially entered into a single funding agreement with AC Transit in the amount of \$518,000 to be sole vendor charged with performing this work for the region. The scope of work includes: 1) gathering and coordinating receipt of information from transit operators serving transit hubs; 2) updating information displays and wayfinding kiosk information content files; 3) printing and installing revised content for information displays and wayfinding kiosks; 4) performing display case and wayfinding kiosk maintenance; 5) responding to concerns regarding currency and accuracy of information; and 6) establishing and maintaining electronic logs and graphics files documenting all facets of information displays and wayfinding kiosks. This scope of work is required for all transit information and wayfinding kiosks installed in various locations at each of the 24 regional hubs designated by MTC. Since entering into this agreement, AC Transit has performed this work satisfactorily. Its project manager and staff have been responsive in coordinating with the various operators that provide transit route, schedule and fare information featured on the information displays and wayfinding kiosks.

The original funding agreement was extended in 2012 and 2015, and is due to expire on June 30, 2019. While the initial years of the funding agreement had lower associated costs, this was a direct result of the hub signage program being not fully deployed during that time. Over time, AC Transit brought on the equivalent of 1.5 full time staff to perform the work. Since then, annual program costs have remained stable. The increased annual average cost contemplated by the proposed amendment is a result of inclusion of the all-nighter regional night services map within this scope of work, and increased capital and labor needs.

Staff recommends further extending the contract through June 30, 2022 and adding \$873,000 in funds to cover the costs of operations and maintenance during that period. The total and average annual costs of the Funding Agreement over the ten-year period as proposed are summarized below:

| Funding Agreement | Term | Original / Amendment Amount | Average Annual Cost |
|--------------------------------------|----------------------|--|--------------------------------|
| Original Agreement | FY09/10-11/12 | \$518,000 | \$172,666 |
| 1 st Amendment | FY12/13-14/15 | \$734,000 | \$244,666 |
| 2 nd Amendment | FY15/16-18/19 | \$956,000 | \$239,000 |
| 3 rd Amendment (Proposed) | FY19/20-21/22 | \$873,000 | \$291,000 |
| Total Agreement | FY09/10-21/22 | \$3,081,000 | \$237,000 |

Recommendation

Staff recommends that the Committee authorize the Executive Director or designee to negotiate and enter into a funding agreement amendment with AC Transit to add \$873,000 to the agreement and to extend the period of performance through June 30, 2022.



Therese W. McMillan

TWM:js

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REQUEST FOR COMMITTEE APPROVAL

Summary of Proposed Funding Agreement Amendment

| | |
|--------------------------------|---|
| Work Item No.: | 2655 |
| Agency: | AC Transit Oakland, CA |
| Project Title: | Regional Transit Information Displays (TIDs)/Wayfinding Kiosks Operations & Maintenance |
| Purpose of Project: | To ensure that transit information signs at regional transit hubs are well operated and maintained through June 2022 |
| Brief Scope of Work: | Coordinate receipt of information from transit operators serving the hub and update TIDs and wayfinding kiosk information; print and install revised content for TIDs and wayfinding kiosks; perform TIDs case and wayfinding kiosk maintenance; respond to public, connecting operator, and MTC concerns regarding currency and accuracy of information and maintenance of TIDs cases and wayfinding kiosks; and establish/ maintain electronic logs and graphics files documenting TIDs and wayfinding kiosk information and physical maintenance for all sites at each location. Update, maintain and post Regional All-Nighter map. |
| Project Cost Not to Exceed: | \$873,000 (this amendment) \$2,208,000 (total contract before this amendment) \$3,081,000 (total contract after this amendment) |
| Funding Source: | State Transit Assistance (STA) |
| Fiscal Impact: | \$306,000 in FY2019-20, \$281,000 in FY2020-21, and \$285,000 in FY2021-22 subject to annual approval by Programming and Allocations Committee of direct allocation of STA funds to AC Transit. |
| Motion by Committee: | That the Executive Director or designee is authorized to negotiate and enter into an agreement amendment with AC Transit for the purposes described herein and in the Executive Director's memorandum dated April 5, 2019, and the Chief Financial Officer is directed to set aside \$873,000 for such amendment, subject to annual approval of STA Funding by the Programming and Allocations Committee in the amount of \$306,000 in FY2019-20, \$281,000 in FY2020-21, and \$285,000 in FY2021-22. |
| Operations Committee: | <hr/> Dave Cortese, Chair |
| Approved: | Date: April 12, 2019 |



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 19-0262 **Version:** 1 **Name:**

Type: Contract **Status:** Consent

File created: 3/7/2019 **In control:** Operations Committee

On agenda: 4/12/2019 **Final action:**

Title: Contract Amendment - 511 San Francisco Bay Area System Integrator, Data Management and Dissemination, and Interactive Voice Response (IVR) Phone System: Iteris, Inc. (\$2,600,000)

Sponsors:

Indexes:

Code sections:

Attachments: [4c 511 System Integrator Contract Amendment V2.pdf](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:
Contract Amendment - 511 San Francisco Bay Area System Integrator, Data Management and Dissemination, and Interactive Voice Response (IVR) Phone System: Iteris, Inc. (\$2,600,000)

Presenter:
Brooke Fotheringham

Recommended Action:
Committee Approval

Attachments:



METROPOLITAN
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Agenda Item 4c

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Operations Committee

DATE: April 5, 2019

FR: Executive Director

W. I. 1224

RE: Contract Amendment – 511 San Francisco Bay Area System Integrator, Data Management and Dissemination, and Interactive Voice Response (IVR) Phone System: Iteris, Inc. (\$2,600,000)

This memorandum asks for Committee approval of a contract amendment, including a one-year contract extension through FY 2019-20, with Iteris, Inc. (Iteris) in an amount not to exceed \$2,600,000 to continue operations, maintenance, and development of the 511 Traveler Information Program's data management and dissemination services.

Background

Iteris was selected in September 2015 in response to a competitive procurement to integrate 511 systems and implement, operate, and maintain traveler information data management and dissemination services for a four-year term, with an option to extend up to an additional five years at MTC's discretion. This contract has been modified through several amendments, bringing the current contract to a total of \$10,764,008.

Iteris has demonstrated superior performance in operations of the 511 phone system and data management system. The additional \$2,600,000 will allow for continued operations, maintenance, and development of 511 services for FY 2019-20. These activities fall within the scope of work outlined in the procurement, which established an original four year contract budget of \$8,906,908, and anticipated adding funds for each contract extension period. The funds for this amendment are subject to approval of the MTC FY 2019-20 budget. Attachment A includes a summary of Iteris and its project team's small business and disadvantaged business enterprise status.

Recommendation

Staff recommends that the Operations Committee authorize the Executive Director or designee to negotiate and enter into a contract amendment with Iteris in an amount not to exceed \$2,600,000 for a one-year extension to continue operations, maintenance, and development of the 511 Traveler Information Program's data management and dissemination services.

Therese W. McMillan

Attachment:

- Attachment A: Disadvantaged Business Enterprise and Small Business Enterprise Status

TWM:bf

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Small Business and Disadvantaged Business Enterprise Status

| | Firm Name | Role on Project | DBE* Firm | | | SBE** Firm | | |
|------------------|------------|--|-----------|----------------|----|------------|----------------|----|
| | | | Yes | If Yes, List # | No | Yes | If Yes, List # | No |
| Prime Contractor | Iteris | System Integrator / Data Management | | | X | | | X |
| Subcontractor | TransSight | Operate and Maintain Transit / Gateway Systems | X | 42484 | | | | X |
| Subcontractor | VoltDelta | Telephony and IVR Hosting | | | X | | | X |
| Subcontractor | HERE | Traffic Data | | | X | | | X |

*Denotes certification by the California Unified Certification Program (CUCP).

**Denotes certification by the State of California.

REQUEST FOR COMMITTEE APPROVAL
Summary of Consultant Contract Amendment

| | |
|-----------------------------|---|
| Work Item No.: | 1224 |
| Consultant: | Iteris, Inc. Santa Ana, CA |
| Work Project Title: | 511 San Francisco Bay Area System Integrator, Data Management and Dissemination, and Interactive Voice Response Phone System |
| Purpose of Project: | To provide data and systems management and operate and maintain dissemination tools and data feeds for the multimodal 511 Traveler Information Service. |
| Brief Scope of Work: | Extension of period of performance to continue operation and maintenance of traveler information data management and dissemination services for 511 SF Bay from July 1, 2019 – June 30, 2020. |
| Project Cost Not to Exceed: | \$2,600,000 (this amendment) Total Contract before this amendment: \$10,764,008 Total Authorized Contract after this amendment: \$13,364,008 |
| Funding Source: | RM2, STP, Toll Credits |
| Fiscal Impact: | \$2,600,000 is subject to approval of the MTC FY 2019-20 budget. |
| Motion by Committee: | That the Executive Director or designee is authorized to negotiate and enter into a contract amendment with Iteris, Inc. to provide the consulting services described above and in the Executive Director's memorandum dated April 5, 2019, and the Chief Financial Officer is directed to set aside funds in the amount of \$2,600,000 for such amendment, subject to approval of the MTC FY 2019-20 budget. |
| Operations Committee: | <hr/> Dave Cortese, Chair |
| Approved: | Date: April 12, 2019 |



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

File #: 19-0292 **Version:** 1 **Name:**
Type: Contract **Status:** Consent
File created: 3/12/2019 **In control:** Operations Committee
On agenda: 4/12/2019 **Final action:**
Title: Clipper® Contract Amendment - Next Generation Clipper System Advisor Contract: IBI Group (IBI) (\$4,000,000)

Sponsors:

Indexes:

Code sections:

Attachments: [4d IBI Contract Amendment v3.pdf](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:

Clipper® Contract Amendment - Next Generation Clipper System Advisor Contract: IBI Group (IBI) (\$4,000,000)

Presenter:

Jason Weinstein

Recommended Action:

Committee Approval

Attachments:



METROPOLITAN
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COMMISSION

Agenda Item 4d

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Operations Committee

DATE: April 5, 2019

FR: Executive Director

W. I. 2780

RE: Clipper® Contract Amendment - Next Generation Clipper System Advisor Contract: IBI Group (IBI) (\$4,000,000)

This memorandum requests Operations Committee approval to extend the IBI Group (IBI) contract term to June 2021 and to add \$4,000,000 over FY 2019-20 and FY 2020-21 to provide technical advice to MTC and the transit operators, support management of the next generation Clipper system integrator contract with Cubic Transportation Systems, Inc. (Cubic), oversee design and testing of the next generation Clipper system, support related Clipper system procurements, and provide additional consulting services as needed to support delivery of the next generation Clipper system.

Background

In 2013, MTC and the 22 transit operators participating in the Clipper program began planning for the next generation Clipper system. Together, MTC and the operators developed a scope of work for a consultant to advise and help manage the procurement of the next generation Clipper system service provider(s) and equipment supplier(s). In September 2014, MTC issued a Request for Proposal (RFP) for consultant support to the next generation Clipper system. The scope included support for:

- System design;
- System development;
- Testing; and
- Transition to a new fare payment system and operations.

The RFP provided for a contract period through June 2020 with options to extend up to an additional 10 years and included support of one or more procurements for the new system. This RFP led to a contract with IBI that was executed in May 2015 and is currently in force through June 2020.

IBI Performance, Resources and Staffing

The IBI contract term was set to allow the opportunity to re-evaluate Clipper next generation technical advisor needs at key points (at completion of the system integrator procurement, and after system implementation) so that MTC and transit operators could develop another technical advisor support strategy if the work was deemed unsatisfactory. MTC and transit agency staff have been satisfied with IBI's work to date. IBI Project Manager Paul Lavalley and his team provided valuable support during the next generation Clipper system procurement. Their work ensured a smooth procurement process and contract award within a tight schedule. The IBI team has established good working rapport with MTC staff and transit agency staff. In January of this year, IBI added Angus Davol to lead the system

integration, transit operator coordination, and special programs elements of the project. Mr. Davol is based in San Francisco and brings a strong history of work previously at IBI Group in Boston and San Francisco; at Stanford University in transportation program development and planning; and at San Francisco International Airport in landside operations management, including development and implementation of tracking and revenue collection systems for ground transportation vehicles, including taxis and TNCs. His experience is highly relevant not only to the technical work of delivering the next generation Clipper system, but also to planning for how the next generation Clipper system could potentially serve as a foundation for Mobility-as-a-Service applications, expanding its reach to include non-transit and other emerging mobility services.

We anticipate IBI's enhanced support during the accelerated deployment phase of the next generation Clipper project and continued support of the program during design and development of the account-based system. The level of funding required for resources under the IBI contract increases in fiscal years 2019-20 and 2020-21. The accelerated deployment support plan includes approximately five to six full time equivalent staff from IBI, including three full-time staff members located in the Bay Area, with a fourth to be added in the coming months. IBI's team will be essential in supporting the rollout of the next generation system accelerated deployment items and design of the next generation account-based system and providing support directly to the transit operators on system integration in preparation for both accelerated deployment and account-based operations. The next generation Clipper system contract with Cubic provides for numerous technical deliverables to enable us to track design and development and progress against the schedule. IBI staff will review every deliverable and support MTC and transit operator reviews. IBI staff will also be instrumental in the procurement of the other Clipper program contracts required to operate the next generation system, including the customer service center, payment gateway, and fare media procurements.

Attachment A includes a summary of IBI and its project team's small business and disadvantaged business enterprise status.

This item was approved by the Clipper Executive Board on March 18, 2019.

Recommendation

Staff recommends that the Operations Committee authorize the Executive Director or designee to negotiate and enter into a contract amendment with the IBI Group to extend the term of the contract to June 2021 and to add \$4,000,000 over FY 2019-20 and FY 2020-21 to provide next generation Clipper system consultant support.


Therese W. McMillan

Attachment:

- Attachment A: Disadvantaged Business Enterprise and Small Business Enterprise Status

TWM:lh

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Small Business and Disadvantaged Business Enterprise Status

| | Firm Name | Role on Project | DBE* Firm | | | SBE** Firm | | |
|------------------|--------------------------|------------------------|-----------|----------------|----|------------|----------------|----|
| | | | Yes | If Yes, List # | No | Yes | If Yes, List # | No |
| Prime Contractor | IBI Group | System Advisor | | | X | | | X |
| Subcontractor | Alco Consulting | System Advisor Support | | | X | | | |
| Subcontractor | Clevor Consulting Group | System Advisor Support | | | X | | | |
| Subcontractor | HDS Consulting, Ltd. | System Advisor Support | | | X | | | |
| Subcontractor | The Transport Group | System Advisor Support | X | 40819 | | | | |
| Subcontractor | Wardley Consulting Group | System Advisor Support | | | X | | | |

*Denotes certification by the California Unified Certification Program (CUCP).

**Denotes certification by the State of California.

REQUEST FOR COMMITTEE APPROVAL
Summary of Consultant Contract Amendment

| | |
|-----------------------------|--|
| Work Item No.: | 2780 |
| Consultant: | IBI Group Seattle, WA |
| Work Project Title: | Next Generation Clipper® System Consultant Support |
| Purpose of Project: | Provide technical support, advice, oversight, and management services to MTC and transit operators relating to the next generation system integrator contract and support multiple next generation Clipper system procurements. |
| Brief Scope of Work: | Provide next generation Clipper system technical advice services through June 2021 with an option to extend up to an additional 9 years. |
| Project Cost Not to Exceed: | \$4,000,000 (this amendment) Total Contract before this amendment: \$5,000,000 Total Authorized Contract after this amendment: \$9,000,000 |
| Funding Source: | TCP, STP (FTA/FHWA) / CMAQ (OBAG 1 and OBAG 2), STA, Regional Measure 2 Capital, Regional Measure 2 Operating, Regional Measure 3, LCTOP, Fare Media and Card Fee Revenue, SB1 State of Good Repair, BATA Rehab. |
| Fiscal Impact: | Funding is subject to the approval of the FY 2019-20 and FY 2020-21 MTC Budgets. |
| Motion by Committee: | That the Executive Director or designee is authorized to negotiate and enter into a contract amendment with IBI Group to provide the consulting services described above and in the Executive Director's memorandum dated April 5, 2019, and the Chief Financial Officer is directed to set aside funds in the amount of \$4,000,000 for such amendment. |
| Operations Committee: | <hr/> Dave Cortese, Chair |
| Approved: | Date: April 12, 2019 |



Metropolitan Transportation Commission

375 Beale Street, Suite 800
San Francisco, CA 94105

Legislation Details (With Text)

| | | | | | |
|----------------------|--|----------------------|---|----------------------|--|
| File #: | 19-0263 | Version: | 1 | Name: | |
| Type: | Contract | Status: | | Committee Approval | |
| File created: | 3/7/2019 | In control: | | Operations Committee | |
| On agenda: | 4/12/2019 | Final action: | | | |
| Title: | Vehicle Occupancy Enforcement Program: | | | | |

i. Contract Amendment - HOV Violation Enforcement Services: California Highway Patrol (CHP) (\$600,000)
Request for approval of funds for CHP to perform vehicle occupancy enforcement on I-80, subject to approval of the FY 2019-20 BATA budget.

ii. Smartphone App-Based and Camera-Based Occupancy Verification Systems Update
Update on key RFI finding and discussion of next steps.

Sponsors:

Indexes:

Code sections:

Attachments: [5a CHP I-80 Contract Amendment Occupancy Verification Update_V4.pdf](#)

| Date | Ver. | Action By | Action | Result |
|------|------|-----------|--------|--------|
|------|------|-----------|--------|--------|

Subject:

Vehicle Occupancy Enforcement Program:

i. Contract Amendment - HOV Violation Enforcement Services: California Highway Patrol (CHP) (\$600,000)

Request for approval of funds for CHP to perform vehicle occupancy enforcement on I-80, subject to approval of the FY 2019-20 BATA budget.

ii. Smartphone App-Based and Camera-Based Occupancy Verification Systems Update
Update on key RFI finding and discussion of next steps.

Presenter:

Pierce Gould

Recommended Action:

- i. Committee Approval
- ii. Information

Attachments:



METROPOLITAN
TRANSPORTATION
COMMISSION

Agenda Item 5a

Bay Area Metro Center
375 Beale Street
San Francisco, CA 94105
TEL 415.778.6700
WEB www.mtc.ca.gov

Memorandum

TO: Operations Committee

DATE: April 5, 2019

FR: Executive Director

W.I. 1237, 6840

RE: Vehicle Occupancy Enforcement Program:

- i. Contract Amendment – HOV Violation Enforcement Services: California Highway Patrol (CHP) (\$600,000)
- ii. Smartphone App-Based and Camera-Based Occupancy Verification Systems Update

This memo requests approval for a \$600,000 contract amendment with CHP to continue enforcement of the I-80 HOV lanes between the Bay Bridge and Carquinez Bridge in FY 19-20. In addition, this memo provides a follow-up to the November 2018 Operations Committee meeting, at which the Committee asked staff to continue to explore and report back on two tools (smartphone app-based and roadside camera-based systems) that are as yet unproven but that seem to have the potential to improve enforcement of occupancy requirements in express lanes and high occupancy vehicle (HOV) lanes.

CHP HOV Violation Enforcement Services in I-80 HOV Lanes

In June 2018, this Committee approved a \$1.2 million contract amendment with CHP for HOV violation enforcement services on I-80 between the Bay Bridge and Carquinez Bridge in FY18-19 for reasons that remain applicable today:

- These HOV lanes are degraded, meeting federal speed requirements less than half of the time.
- These HOV lanes connect the Bay, Carquinez, and Richmond-San Rafael Bridges, thus improving HOV lane operations for commuters at multiple bridges.
- These HOV lanes will be the last ones in MTC's authorized network to be converted to express lanes; in the meantime, CHP is the best option for improved performance.

Staff recommends continuing this program under which CHP has caught a large number of carpool cheaters. In February 2019, CHP issued 1,900 citations and warnings (roughly 95 each weekday), of which 75% were for HOV occupancy violations. Staff anticipates \$250,000 to \$400,000 of unused carryover funds from FY18-19, and requests this Committee approve a \$600,000 contract amendment for I-80 enforcement services in FY19-20, subject to future budget adoption, for a total FY19-20 budget between \$850,000 and \$1 million.

Smartphone App-Based Occupancy Verification Tool

In November 2018, the Committee asked staff to provide more information before piloting app-based occupancy verification tools. Broadly speaking, these apps are used by carpool drivers and passengers to report and verify the number of vehicle occupants. BAIFA issued a Request for Information (RFI) to more than 50 firms in January 2019 to learn more about the technology, existing use, and questions raised by the Committee in relation to privacy, inclusion of children and those without smart phones, and ability to prevent cheating. BAIFA received six submittals from firms representing a broad range of product maturity: Cambridge Transportation Labs, GoCarma, Hytch, Rideflag, Seamgen and TKLABS. Staff held discussions with the four firms that have relatively more mature products.

Detailed findings are summarized in Attachment A, but key takeaways include:

- Product Maturity: Firms are in different stages of product development.
- Added-Value: Occupancy verification can be combined with other app-based features like carpool matching, behavioral incentives and/or toll payment to deliver added-value for users.
- Device Requirements: At least one person must have a smartphone (not necessarily the driver). To address persons without a smartphone (including kids), either a proxy device is provided or one person's smartphone camera is used to verify all occupants.
- Managing Cheating: Apps may not identify cheaters immediately, but use pattern recognition to look for violations over time. Apps can identify if two smartphones are always near one another, which could be the basis to take an action like send a warning, charge the full toll or temporarily suspend discount privileges. Some apps use a phone's camera to capture real or proxy images of carpool participants (some without saving the image) and/or as a second-level verification to guard against one person having multiple phones. The combination of technologies, rules of use and data analysis can make it hard to cheat using the apps over time.
- Privacy/Data Security: Firms suggest limiting the type of data collected and/or automatically purging data, and have restrictions on sharing, selling and distributing data. An app provider would need to comply with MTC's Personally Identifiable Information (PII) policy.
- Testing/Deployment Approach: Testing/Deployment should focus on toll bridges or express lanes first to cost-effectively utilize existing infrastructure, e.g., license plate cameras and communications systems used today to catch toll cheaters. Deployment on HOV lanes poses a significant challenge, as it would require: license plate camera installations; a change in policy that all carpools must use the app; and the need for CHP to automatically issue citations (not currently allowed per California law).

Staff finds the apps sufficiently promising to proceed with a pilot to gauge public acceptance, verify accuracy and gain experience with the systems, including privacy considerations and cheating deterrence. The voluntary pilot would provide an incentive to carpoolers to use the app in a designated express lane corridor. The expected time frame for pilot completion is approximately one year from contract award.

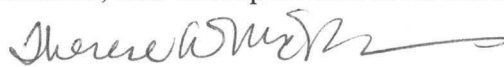
Camera-Based Occupancy Verification Tool

In November 2018, staff reported on the Phase 1 pilot, in which three vendors installed and tested camera-based systems. These systems use machine learning to count the number of vehicle occupants in images taken from the roadway median. Staff is working to identify a location at an existing toll bridge or express lane for a Phase 2 pilot. The pilot would include integration with existing toll systems to determine the feasibility of using camera-based technology to assess a vehicle's occupancy to collect the proper toll amount due.

Recommendation

Subject to future budget approval, staff requests this Committee authorize the Executive Director, or designee, to negotiate and enter into a contract amendment with CHP to enforce vehicle occupancy in the I-80 HOV lanes between the Bay Bridge and Carquinez Bridge for one year in a not-to-exceed amount of \$600,000.

Staff will continue to develop and seek funding for pilots of the smartphone app and camera-based occupancy verification tools to test functionality and cost-effectiveness, and will report back at the next major milestones.



Therese W. McMillan

Attachments:

- Attachment A: Smartphone App-Based Occupancy Verification System RFI Key Findings

TWM: pg

Smartphone App-Based Occupancy Verification System RFI Key Findings

| Topic | Key Findings |
|--|---|
| Technology | <ol style="list-style-type: none"> Flexible Solution – Apps have been built for both Apple iOS and Android platforms. Depending on the firm, app solutions detect the number of vehicle occupants during a particular trip by pairing smartphones and proxy devices using Bluetooth and GPS, and/or by using facial recognition software. There would be no need for manual image review. Catch Cheaters Over Time – In general, an app-based solution may not identify a cheater the first time, but after multiple trips, a digital record builds up that can be analyzed. Apps use pattern recognition to look for potential violations. For example, on a toll facility, apps have the ability to identify if two smartphones are always near one another, which could be the basis to send the driver a series of warnings to justify eventually charging a full toll or suspending discount privileges for a period of time. Different apps have different solutions for potential cheating scenarios depending on their technology. For example, some apps use a smartphone’s camera to capture real or proxy images of carpool participants who do not have smartphones or as a second-level verification to guard against one person having multiple phones. Built-in technology could protect against the use of mannequins or photographs to cheat the system by looking for facial movement. Overall, some firms have well thought-out solutions that could significantly increase compliance with occupancy rules. Solutions for Users without Smartphones – At least one person in the vehicle must have a smartphone (not necessarily the driver). Most firms have options for people without smartphones such as proxy devices or using the camera feature to document the number of people in the vehicle (which could work for children). Potential to support CHP enforcement – Subject to a change in California law, apps could potentially be used to provide a list of repeat cheaters’ license plate numbers to CHP for targeted enforcement. |
| Personally Identifiable Information (PII) & Data Security | <ol style="list-style-type: none"> Limits on PII – In addition to personal app profile data (i.e. name; address; cellphone; email; license plate and/or toll tag and/or toll account; photo), app users would agree to have their location (when using the app), vehicle occupancy and possibly other data tracked. Most firms appear sensitive to how much data is collected, and some suggest minimizing it. All firms appear amenable to restrictions on sharing, selling or giving away data. Some would share PII with MTC as they consider it to be MTC’s data, while others would only share anonymized or aggregated data. Data Security – Firms mention ‘best practice’ measures like device and in-transit data encryption, secure hosting facilities and automatic data purges. |

| Topic | Key Findings |
|-------------------------------|---|
| Pilot & Deployment | <ol style="list-style-type: none"> Phase 1 Pilot – Multiple firms recommended a minimum 3 months of operation and 500 to 1,000 participants with incentives for participation. Firms also recommended responsive customer support to quickly surface issues with app implementation so pilot participants have a positive experience. Integration – Using an Application Programming Interface (API), apps can provide access to a list of verified vehicles to either the express lanes toll system integrator or the FasTrak[®] customer service center. While integration won't be needed for the Phase 1 pilot, multiple firms suggested pre-planning how integration could work in Phase 2 as part of the Phase 1 pilot. Tolled Facilities First - App-based systems will be easier and more cost-effective to deploy in tolled facilities than HOV lanes because tolled facilities already have toll tag (or account) requirements for customers and license plate cameras to automatically identify violators. For HOV lanes, all vehicles would need to use an app, and license plate cameras would need to be installed for automated enforcement and/or CHP would need to perform enforcement against suspected violators (i.e. people without the app or people who try to cheat the app). The region should focus on toll facility applications first. Allow Time to Consider the Details of How The App Works – There is a lot of functionality that can be built in to an app, and the functionality can be turned on or off. There are trade-offs between customer convenience and enforcement rigor. Decisions about the rules of using an app can take a while to make, and should be allotted sufficient time in the schedule. |
| Cost | <ol style="list-style-type: none"> Estimated Phase 1 Pilot Cost – Staff estimates the Phase 1 pilot may cost from \$750,000 to \$1,000,000. This estimate assumes 500+ participants for 3 months, including: app licensing, set-up, customization, hardware/devices, and project management; recruitment and incentives; customer service; evaluation; and pre-planning for Phase 2. Phase 2+ Costs – Beyond Phase 1, costs are uncertain. Different firms suggested different compensation models, which included a mix of components such as one-time costs, annual software licensing/subscription costs, hourly software customization costs and/or transaction fees. |

REQUEST FOR COMMITTEE APPROVAL
Summary of Proposed Contract Amendment

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|-----------------------------|---|
| Work Item No.: | 6861 |
| Contractor: | California Highway Patrol (CHP) Sacramento, CA |
| Work Project Title: | High Occupancy Vehicle (HOV) Violation Enforcement Services |
| Purpose of Project: | Improve I-80 HOV lane performance. |
| Brief Scope of Work: | Enforce vehicle occupancy requirements in the I-80 HOV lanes between the Bay Bridge and Carquinez Bridge. |
| Project Cost Not to Exceed: | \$600,000 |
| Funding Source: | Toll Bridge Rehabilitation Program Funds |
| Fiscal Impact: | Funding is subject to approval of the FY 2019-20 BATA Budget. |
| Motion by Committee: | That the Executive Director or designee is authorized to negotiate and enter into a contract amendment with the California Highway Patrol to enforce vehicle occupancy requirements as described above and in the Executive Director's memorandum dated April 5, 2019, and the Chief Financial Officer is directed to set aside funds in the amount of \$600,000 for such an amendment, as specified above. |
| Operations Committee: | <hr/> Dave Cortese, Chair |
| Approved: | Date: April 12, 2019 |