San Francisco County Transportation Authority

1455 Market Street, 22nd Floor
San Francisco, California 94103
415.522.4800 FAX 415.522.4829
info@sfcta.org www.sfcta.org

# Memorandum

**Date:** 08.28.14

**RE:** Citizens Advisory Committee
September 3, 2014

**To:** Citizens Advisory Committee

**From:** Lee Saage – Deputy Director for Capital Projects

**Subject:** **ACTION** – Adopt a Motion of Support for the Award of an 12-Month Contract to Parsons Brinckerhoff, Inc. in an Amount Not to Exceed $250,000, for System Engineering Services for the Treasure Island Mobility Management Program and for Authorizing the Executive Director to Negotiate Contract Payment Terms and Non-Material Contract Terms and Conditions

**Summary**

On April 1, 2014, the San Francisco Board of Supervisors approved a resolution designating the Transportation Authority as the Treasure Island Mobility Management Agency (TIMMA) to implement the Treasure Island Transportation Implementation Plan in support of the Treasure Island/Yerba Buena Island Development Project. The Fiscal Year (FY) 2014/15 TIMMA budget and Work Program call for completion of the Treasure Island Mobility Management Program (Program) policy recommendations and development of the Concept of Operations (ConOps) and the draft System Engineering Management Plan (SEMP). The ConOps and SEMP are preliminary system engineering concepts that will shape the Program's policies. The ConOps and SEMP are also deliverables required by the Federal Highway Administration Value Pricing Pilot Program and Metropolitan Transportation Commission (MTC) Priority Development Area grants, which support the Program's policy analysis and conceptual engineering. On May 28, 2014, we issued a Request for Proposals (RFP) for the Treasure Island Mobility Management Program System Manager. By the July 1, 2014 deadline, we received six proposals. A multi-agency technical review panel, comprised of representatives from the Transportation Authority, Treasure Island Development Authority (TIDA) and MTC, reviewed the proposals and interviewed the four top-ranked firms on August 19, 2014. Based on the competitive selection process defined in the evaluation criteria of the RFP, the review panel recommends the award of a consultant contract to the top-ranked firm of Parsons Brinckerhoff, Inc. **We are seeking a motion of support for the award of a 12-month contract to Parsons Brinckerhoff, Inc. in an amount not to exceed $250,000, for system engineering services for the Treasure Island Mobility Management Program and for authorizing the Executive Director to negotiate contract payment terms and non-material contract terms and conditions.**

## BACKGROUND

The Treasure Island Transportation Management Act of 2008 (Assembly Bill No. 981) directs the Treasure Island Development Authority (TIDA) Board of Directors to make a recommendation to the San Francisco Board of Supervisors (BOS), which would then designate a board or agency to serve as the transportation management agency for Treasure Island (now known as the Treasure Island Mobility Management Agency, or TIMMA). The purpose of TIMMA is to implement a comprehensive and integrated program to manage travel demand on the island as the Treasure Island/Yerba Buena Island Development Project (Project) develops. The centerpiece of this innovative approach to mobility is an integrated and multimodal congestion pricing demonstration program, the Treasure Island Mobility Management Program (Program) that applies motorist user fees to support enhanced bus, ferry, and shuttle transit, as well as bicycling options, to reduce the traffic impacts of the Project. In February 2011, TIDA approached the Transportation Authority to discuss the possibility of the Transportation Authority's assumption of the role of the TIMMA. On October 25, 2011, through Resolution No. 12-

16, the Transportation Authority Board recommended that the TIDA Board and the BOS designate the Transportation Authority as the TIMMA to implement the Pricing Program, authorized a partnership Memorandum of Agreement (MOA) between the Transportation Authority and TIDA, and authorized negotiation of initial operating contracts and development of TIMMA formation plans for consideration by the Transportation Authority Board. On April 1, 2014, the San Francisco Board of Supervisors adopted a resolution designating the Transportation Authority as the TIMMA. On August 26, 2014, the California State Assembly passed AB 141 and sent it to the Governor for signature. AB 141 would establish TIMMA as an agency legally separate from the Transportation Authority, and governed by the Transportation Authority Board.

TIDA and the Transportation Authority have signed annual operating MOAs since Fiscal Year (FY) 2011/12 to establish the budget and scope of work for TIMMA activities. Through the current period, the Transportation Authority has advanced the scope of work encompassed by these MOAs, including securing $980,000 in grant awards from the Federal Highway Administration (FHWA) and Metropolitan Transportation Commission (MTC) for planning, policy analysis, and preliminary engineering. The FY 2014/15 TIMMA Work Program includes, among other activities, completion of the Program's policy recommendations and development of the Concept of Operations (ConOps) and the draft System Engineering Management Plan (SEMP). The ConOps and SEMP are preliminary system engineering concepts that will support the Program's policies. The ConOps and SEMP are also deliverables required by the VPPP grants.

To meet the objectives of the FY 2014/15 TIMMA Work Program, in spring of 2014 we held a targeted industry outreach and issued of a Request for Proposals (RFP) for the Treasure Island Mobility Management Program System Manager. The purpose of this memorandum is to summarize the procurement process and recommend the award of a 12-month contract for system engineering services for the Treasure Island Mobility Management Program to Parsons Brinckerhoff, Inc.

## DISCUSSION

The Transportation Authority, as TIMMA, seeks consultant services to support the development of the ConOps and the SEMP for the Program. A major focus of the Program Work Program for FY 2014/15 is completing the demand and financial analysis of the Pricing Program policies, and drafting the first deliverables for the Systems Engineering Management phase of project development, including the ConOps and draft SEMP.

**Scope of Services:** The scope of services for the system manager consultant is provided as Attachment 1. The scope is aligned with the current policy analysis and TIDA schedule for development of the island. We divided the scope into several phases, which allows us to initiate each phase of consultant work through a Notice to Proceed, depending on the overall development schedule and identifying funding for future phases. The FY 2014/15 TIMMA Work Program anticipates a Notice to Proceed for Tasks 1, 2, and 3 outlined in Phase I, which includes preparation of the ConOps and draft SEMP. If the Transportation Authority determines in its sole and absolute discretion that the selected consultant has performed Phase I satisfactorily and funding is available, Phase II will immediately follow Phase I as a continuation of the Treasure Island Mobility Management Program System Manager Project. If not, the Transportation Authority reserves the right to re-procure and to select a different consultant for Phases II, III and IV. Authorization for future phases of work will be at the Transportation Authority's sole and absolute discretion and will be by amendment to the consultant contract.

**Budget:** The anticipated cost for Phase I of the proposed Scope of Services is $250,000, of which $150,000 is part of the adopted FY 2014/15 budget of $747,799. Within this total, $497,799 will be

provided by the VPPP and MTC planning grants and $250,000 has been committed by TIDA. Furthermore, we will request an appropriation of $150,000 in Prop K funds in October 2014 and amend the FY 2014/15 budget for the overall TIMMA work program .

**Procurement Process:** We issued a Request for Proposals (RFP) for Treasure Island Mobility Management Program System Manager on May 28, 2014. We held a pre-proposal conference on June 6, 2014, which provided opportunities for small businesses and larger firms to meet and form partnerships. Twenty-seven people attended the event, representing twenty firms, of which seven were Disadvantaged Business Enterprises (DBE) and four were Small Business Enterprise (SBE) firms.

We took steps to encourage participation from SBE and DBEs, including hosting a special outreach event on May 16, 2014, as well as advertising in six local newspapers: San Francisco Chronicle, San Francisco Examiner, The Western Edition, San Francisco Bay View, and World Journal and Small Business Exchange. Fifty-six people attended the May event, representing forty-six firms, of which twelve were DBE and twelve were SBE firms.

We also distributed the RFP, sign-in sheets for the outreach event and pre-proposal conference, and periodic updates on the RFP to certified small, disadvantaged and local businesses, the Bay Area and cultural Chambers of Commerce, and the Small Business Councils.

By the due date of July 1, 2014, we received six proposals. The review panel consisting of staff from the Transportation Authority, TIDA, and MTC evaluated the proposals based on qualifications and other criteria identified in the RFP, including the proposers' understanding of project objectives, technical and management approach, and capabilities and experience. One proposal was disqualified based on an incomplete submittal.

The panel interviewed the four top-ranked teams on August 19, 2014. Based on the competitive selection process, the review panel recommended the award of a consultant contract to the top-ranked firm of Parsons Brinckerhoff, Inc. The recommended team distinguished itself on the basis of: 1) its strong technical management approach focused on clear goals, prioritizing technical needs, and strategies for obtaining quality outcomes; and 2) its capabilities and experience including the Project Manager's similar past experience, successful recent completion of other tolling-related projects in the bay area, and a strong track record of the team's technical leads in key subject matters as well as their previous experience working effectively together.

We will use some of the FHWA and MTC grants to fund a portion of this contract and will adhere to federal regulations pertaining to DBEs. For this contract, we established a DBE goal of 12%. Proposals from all of the six teams met or exceeded the 12% DBE goal. The Parsons Brinckerhoff team includes 15% DBE participation from five firms: Asian Pacific-owned firms, William Kanemoto & Associates, Aetypic Inc. and YEI Engineers, Inc.; and Hispanic-owned firms, Cambria Solutions, Inc. and Garcia and Associates (GANDA). Aetypic Inc. is also based in San Francisco.

**We are seeking a motion of support for the award of a 12-month contract to Parsons Brinckerhoff, Inc. in an amount not to exceed $250,000, for system engineering services for the Treasure Island Mobility Management Program, and to authorize the Executive Director to negotiate contract payment terms and non-material contract terms and conditions.**

## ALTERNATIVES

1. Adopt a motion of support for the award a 12-month consultant contract to Parsons Brinckerhoff, Inc. in an amount not to exceed $250,000, for system engineering services for the Treasure Island Mobility Management Program, and to authorize the Executive Director to

negotiate contract payment terms and non-material contract terms and conditions, as requested.

2. Adopt a motion of support for the award a 12-month consultant contract to Parsons Brinckerhoff, Inc. in an amount not to exceed $250,000, for system engineering services for the Treasure Island Mobility Management Program, and to authorize the Executive Director to negotiate contract payment terms and non-material contract terms and conditions, with modifications.

3. Defer action, pending additional information or further staff analysis.

## FINANCIAL IMPACTS

The anticipated cost for Phase I of the proposed Scope of Services is $250,000, of which $150,000 which is part of the adopted FY 2014/15 budget of $747,799 for TIMMA-related work. Within this total, $497,799 is will be provided by the VPPP and MTC planning grants and $250,000 has been committed by TIDA. Furthermore, we will request an appropriation of $150,000 in Prop K funds in October 2014 and amend the FY 2014/15 budget for the overall TIMMA work program.

## RECOMMENDATION

Adopt a motion of support for the award a 12-month consultant contract to Parsons Brinckerhoff, Inc. in an amount not to exceed $250,000, for system engineering services for the Treasure Island Mobility Management Program, and to authorize the Executive Director to negotiate contract payment terms and non-material contract terms and conditions, as requested.

Attachment:

1. Treasure Island Mobility Management Program System Manager Scope of Services

# Attachment 1 - Scope of Services

# Treasure Island Mobility Management Program System Manager

## Project/Study Purpose and Background

On April 1, 2014, the San Francisco Board of Supervisors (BOS) adopted a resolution designating the Transportation Authority as the Treasure Island Mobility Management Agency (TIMMA) to implement elements of the Treasure Island Transportation Implementation Plan (TITIP) in support of the Treasure Island/Yerba Buena Island (TI/YBI) Development Project. The 2008 California State Assembly Bill No. 981 (AB 981), the Treasure Island Transportation Management Act, authorized the San Francisco BOS to designate a board or agency to act as the transportation/mobility management agency for Treasure Island. The Transportation Authority and Treasure Island Development Authority (TIDA) execute an annual operating agreement which defines the budget and work program for the fiscal year to support pre-implementation of the TITIP. The TITIP calls for, and TIMMA will be responsible for implementing, the Treasure Island Mobility Management Program: a comprehensive and integrated program to manage travel demand on Treasure Island as the development project occurs, including an integrated congestion pricing program with vehicle tolling, parking pricing, and transit pass components.

In June 2011, the Planning Commission and TIDA jointly certified the Final Environmental Impact Report for the TI/YBI Development Project, and in addition the BOS approved a Disposition and Development Agreement (DDA) between TIDA and Treasure Island Community Development, LLC (TICD) and approved the TITIP.

In October 2011, through Resolution 12-16, the Transportation Authority Board and TIDA Board recommended that the BOS designate the Transportation Authority as the TIMMA and authorized a partnership Memorandum of Agreement (MOA) between the Transportation Authority and TIDA. Through Resolutions 12-25, 13-01, and 14-53, the agencies later executed operating contracts covering Fiscal Years 2011/12, 2012/13, and 2013/14, with the Transportation Authority tasked to advance agency formation documents, grant-writing activities, and planning.

Subsequently, the Transportation Authority sought and received regional and federal grants to conduct the Treasure Island Mobility Management Study (Study). The goal of the Study is to confirm the policy definition of the mobility management program, establish financial viability, draft conceptual capital and operating cost estimates, and to advance necessary operating agreements, leading to the system design and integration phases and eventual implementation of the Transportation Program as described in the Treasure Island Implementation Plan. The Study is currently underway. Various reference documents are available on our website at http://www.sfcta.org/doing-business-us/available-contracting-opportunities. Information regarding DDA and TIDA EIR documents can be found at http://sftreasureisland.org/approved-plans-and-documents. Information regarding SFPark operations, including certain development documents can be found online and at the SFPark website at http://sfpark.org.

## Project Organization

The various entities involved in the implementation of the TITIP and their respective roles and responsibilities are described below:

**Role of the TIMMA**: AB 981 provides the TIMMA with the exclusive powers necessary to implement the Transportation Program in furtherance of the goals described below:

1. Develop a comprehensive set of Transportation Demand Management (TDM) programs to encourage and facilitate transit use and to minimize the environmental and other impacts of private motor vehicles traveling to, from, and on Treasure Island.
2. Manage Treasure Island-related transportation in a sustainable manner, to the extent feasible, with the goal of reducing vehicle miles traveled and minimizing carbon emissions and impacts on air and water quality.
3. Create a flexible institutional structure that can set parking and congestion pricing rates, monitor the performance of the transportation program, collect revenues, and direct generated revenues to transportation services and programs serving Treasure Island.
4. Promote multimodal access to, from, and on Treasure Island for a wide range of local, regional, and statewide visitors by providing a reliable source of funding for transportation services and programs serving Treasure Island that will include bus transit service provided by the San Francisco Municipal Transportation Agency (SFMTA) and Alameda and Contra Costa Transit Agency (AC Transit) as well as ferry service and a local shuttle.

Key components of these goals are the ability to establish a congestion pricing and mobility enhancement program which includes:

1. Recommending to the BOS an initial fee structure for the imposition of congestion pricing fees and modifying the fee structure as necessary thereafter;
2. Administering and collecting congestion pricing fees on Treasure Island;
3. Adopting a transit voucher fee structure applicable to residents and other users of Treasure Island and administer and collect all Treasure Island transit voucher fees;
4. Expending revenues for implementation, operation, collection and enforcement, maintenance, construction, and administration activities;
5. Entering into operating contracts with AC Transit, Water Emergency Transportation Authority (WETA), and an on-Island shuttle provider for transit services for the area;
6. Applying for, accepting and administering state, federal, local agency, or other public or private funds for transportation purposes;
7. Undertaking studies, performance evaluations, and monitoring activities; and
8. Adopting and administering the transportation program, implementing rules and regulations, collecting and administering generated revenues, and taking all other steps necessary to implement the transportation program.

TIMMA will continue to conduct community outreach in support of the Mobility Management Program throughout the planning, design and implementation phases.

**Role of TICD:** TICD will build most of the transportation infrastructure and will provide operating subsidies to carry out the transportation program in the initial phases of the Mobility Management Program when the revenues from non-residential parking and congestion pricing are not yet at levels to sustain transit service to Treasure Island. The DDA, between TIDA and TICD, requires that TICD contribute a $30,000,000 subsidy, expressed in 2010 dollars, to the Mobility Management Program. In addition, if, after Treasure Island is 50% occupied and less than 50% of

off-Island trips during the peak period are made by modes other than auto, the DDA requires that TICD contribute an additional $5,000,000 in subsidy to support the Transportation Program.

**Role of TIDA:** TIDA will administer the TICD subsidy, as described above, for Transportation Program activities during the occupancy period, as well as enter into contracts, either with the Transportation Authority prior to the formation of the TIMMA or with the TIMMA after its formation, to carry out pre-occupancy Transportation Program activities. TIDA will also oversee the design review, approval, and construction of transportation infrastructure, and will coordinate with the TIMMA on these plans.

**Role of SFMTA:** SFMTA will be responsible for activities reserved to it in Article 8A of the Charter and unaffected by AB 981, as well as activities which may be assigned to the TIMMA under AB 981 but which the parties agree are appropriate to continue being performed by SFMTA, including:

- Authority to set parking rates for on-street and off-street parking and to set parking fines and penalties.
- Authority to provide SFMTA bus service on Treasure Island and establish, collect, and enforce SFMTA transit fares.
- Authority to regulate taxi service.
- Authority to adopt regulations that control the flow and direction of motor vehicle, bicycle and pedestrian traffic, including regulations that limit the use of certain streets or traffic lanes to categories of vehicles and that limit the speed of traffic.
- Authority to design, select, locate, install, operate, maintain and remove all official traffic control devices, signs, roadway features and pavement markings that control the flow of traffic with respect to streets and highways within City jurisdiction.
- Authority to adopt regulations limiting parking, stopping, standing or loading as provided by state law, and to establish parking privileges and locations subject to such privileges for categories of people or vehicles as provided by state law.
- Authority to establish policies regarding and procure goods and services for the enforcement of regulations limiting parking, stopping, standing or loading, and the collection of parking-related revenues and, along with the Police Department, have the authority to enforce parking, stopping, standing or loading regulations.

### Scope of Services

The Transportation Authority, as the TIMMA, will provide oversight of the System Manager's work. The System Manager will be responsible for conducting all the work activities listed below including providing expertise to assist TIMMA and project partners TIDA, TICD, and SFMTA in advancing the parking pricing and toll technology congestion pricing elements of the TITIP. Specific tasks related to the toll technology elements include refining the definition of the system, developing the operating parameters of the system and providing support toward the development of the contract / bid documents necessary to procure a system integrator. The Parking Pricing System will be owned and operated by SFMTA and the development and deployment of the Parking Pricing System will be under the direction of SFMTA and not included in the scope of services for this contract. System Manager tasks for parking will be limited to development of recommendations regarding potential

integration of data from the two standalone parking and tolling systems. SFMTA will be an active and ongoing key partner throughout the System Manager process. Technical input will be provided through a project Technical Advisory Committee (TAC). Partner Agencies that will be invited to participate on the TAC include the Bay Area Toll Authority (BATA), WETA, AC Transit, SFMTA and Caltrans. TAC meetings will be led by Transportation Authority staff. It is anticipated that the System Manager will present updates on deliverables at TAC meetings.

The services under this contract will build on significant community outreach, stakeholder involvement, and current and previous planning efforts.

**The budget for this effort is for an amount not to exceed $250,000 for Phase I.** Please note that this is a ceiling and not a target.

**Scope of Work:** Tasks will proceed in phases pending the authorization of annual TIMMA budgets. Since funding for all tasks has not been identified at this time, the scope of work will be delivered in multiple phases as funding becomes available and key decisions are confirmed by stakeholders. It is also important to note that other design and construction projects are actively being implemented on Yerba Buena and Treasure Islands which may impact the scope and schedule of Mobility Management Program implementation. Therefore, system management services for the Mobility Management Program will be delivered in the following phases:

| Phases/Tasks | Budget | Schedule Start Date |
|---|---|---|
| Task 1* | | Ongoing |
| Phase I: Tasks 2, 3, and 4 | $250,000 | November 2014 |
| Phase II: Task 5 and 6 | $350,000 | July 2015 |
| Phase III: Task 7 | $400,000 | April 2016 |
| Phase IV: Task 8 | $300,000 | January 2017 |

* Each phase of the System Manager effort will require a new and/or updated project management plan, as needed, to ensure effective project management, budget and schedule adherence, and the delivery of quality products from this contract. Costs associated for this effort will be incorporated in each phase.

**Additional Follow-on Work:** If the Transportation Authority determines in its sole and absolute discretion that the selected consultant has performed Phase I satisfactorily and funding is available, Phase II will immediately follow Phase I as a continuation of the Treasure Island Mobility Management Program System Manager Project. If not, the Transportation Authority reserves the right to re-procure and to select a different contractor for Phases II, III and IV. Authorization for future phases of work will be at the Transportation Authority's sole and absolute discretion and will be by amendment to the consultant contract.

The total budget for this contract will be negotiated but not to exceed $250,000 for Phase I, $350,000 for Phase II, $400,000 for Phase III and $300,000 for Phase IV.

Specific Tasks under this contract include the following:

**Task 1** – Administration and Project Management

**Task 2** – Refinement of System Concept

**Task 3** – Development of Concept of Operations (Con-Ops) and draft System Engineering Management Plan (SEMP) documents and support of the Transportation Authority in the development of related policy, business rules and definition of roles and responsibilities

**Task 4** – Preparation of Final SEMP *(Optional Task)*

**Task 5** – Development of preliminary engineering drawings, including all applicable disciplines, for all capital improvements, and environmental clearance documents – if needed *(Optional Task)*

**Task 6 –** Technical support to TIMMA/Transportation Authority in procurement of System Integrator *(Optional Task)*

**Task 7** – System Integrator contract technical oversight *(Optional Task)*

**Task 8** – Operations Oversight *(Optional Task)*

Separately from the tasks identified above, proposers may suggest changes/additions/subtractions to the task descriptions and the division of responsibility between the Transportation Authority, and the consultant team as part of their proposal, but this should be stated clearly. The Transportation Authority is interested in establishing an efficient process that utilizes both in-house and consultant expertise. Any changes to the proposed scope and division of responsibility should result in all desired deliverables in a manner that successfully advances Mobility Management Program implementation. The specific System Manager tasks and responsibilities are detailed below.

**Task 1: Administration and Project Management.** The purpose of this task is to ensure a smooth workflow and timely completion of the Mobility Management Program. This task will include the following subtasks:

**1.1 Project Management Plan.** The purpose of this task is to develop the project management plan that will at a minimum include the following: Team organization and responsibilities; identification of contact person and schedule showing timeline for deliverables; resource and schedule management. The schedule should allow at least seven (7) working days for Transportation Authority staff to review the draft version of all deliverables. All final versions of the deliverables shall be available in electronic, editable format (native files when the software is compatible with those of the Transportation Authority's, such as Microsoft Word, PowerPoint, travel demand forecasting model, etc.)

***Deliverable**: Project Management Plan.*

**1.2 Monthly Activity Reports and Invoices.** The System Manager shall provide status of the work efforts in monthly activity reports and invoices submitted to the Transportation Authority. Monthly activity reports shall be prepared and attached to the invoices documenting the work effort during the billing period, tasks to be accomplished over the next thirty (30) days as well as any anticipated challenges and issues, and potential methods for resolution. If no invoice is submitted for a particular month, the contractor is still required to submit the monthly activity report.

***Deliverable**: Monthly Progress Reports and Invoices.*

**1.3 Progress Meeting.** The System Manager shall set-up and lead bi-weekly meetings with the Transportation Authority staff in order to ensure timely delivery of the work product and the effective coordination of all tasks.

***Deliverable**: Coordination and management of bi-weekly progress meetings and documentation of project decisions and action items in minutes.*

**1.4 Project Kick-Off Meeting.** The System Manager shall conduct a project kick-off meeting with Transportation Authority staff and the TIMMA team at the beginning of each phase of the project to ensure effective coordination of the work effort.

***Deliverable**: Attendance at one (1) project kick-off meeting at the initiation of each project phase and documentation of project decisions and action items in minutes.*

## PHASE I

**Task 2: Refinement of System Concept.** The purpose of this task is to refine the definition of the tolling system, the relationship between the tolling system and the SFMTA-owned and operated parking pricing system; evaluate operating parameters for the systems that have been assumed in the preliminary planning work; and describe the level for which these systems will be integrated (both financially and technically).

This task will include the review of the planning documents developed to date including the TITIP, the Study currently underway, and the draft policy assumptions that have been developed.

Key elements of this task will be to confirm the level of integration recommended for the parking pricing system, the tolling system, and to outline the institutional and technological framework for the development, deployment, and operation of the tolling system. The current assumption for the parking system on Treasure Island is that it will be managed by SFMTA and will be modeled after the SFPark System. After a review of the existing operating parameters and system requirements for SFPark, the System Manager will assist the Transportation Authority in the development of a strategy for coordinating the tolling systems with the SFMTA's implementation of the parking pricing system on Treasure Island. The strategy will recommend a framework for assumptions about the parking system operation and coordination of the parking pricing system and the tolling system.

This task will at a minimum evaluate and perform the following:

- Evaluate the current planning level system definition for the toll system that will be implemented on Treasure Island.
- Define tolling system.
- Coordinate the parking pricing system with the tolling system.

***Deliverables:** Draft and final tolling system and recommended strategy for coordinating the tolling and pricing systems.*

**Task 3: Development of Con-Ops Document and Preliminary System Development.** The purpose of this task is to define the operating concepts for the toll system, documenting how the system will be designed, constructed, operated, maintained, and administered. This task will include the development of the Con-Ops document and the draft SEMP.

Systems development work on this project will build on previously approved planning and development documents as well as planning work that is currently underway. Approved program documents include the Final Environmental Impact Report, the TITIP, and the DDA. Documents to be developed as part of the current Study include the preliminary capital and operating costs, preliminary toll policy, the draft and final project description, and partnership agreements with other

operating agencies. These documents will be shared with the System Manager as they become available.

**3.1 Con-Ops Plan.** The Con-Ops will describe the elements of the system, how it will operate and will outline the roles and responsibilities of partner agencies. Key elements of the Con-Ops will include:

- Documentation of project goals and definitions.
- A description of the project organization and management structure from the planning phase through operations (roles and responsibilities for all partners in each phase).
- Identification of key milestones and decision points for each phase of development.
- Further definition of the physical and operational characteristics of the system to support a more detailed preliminary system design.
- Proposed facility conceptual design including location of toll zones.
- Operating concept for the system.
- Roles and responsibilities of key project partners and stakeholders for each phase of the project development, deployment, and operations.
- Technical requirements of the system.
- Revised capital and operating cost estimates.
- Approach to back-office processing and customer support.
- Approach to enforcement of the tolling system.
- Documentation of final toll policy.

***Deliverable:*** *Draft and Final Con-Ops Plan.*

**3.2 Draft System Requirements and Preliminary System Design.** Building on the Con-Ops document, this task will develop a more detailed definition of the system requirements. The system requirements to be defined will include the functional, performance, operational, data, administrative, maintenance, and interface requirements for the proposed system. Preliminary system design will be advanced sufficiently to define the scope of work that will be included in the System Integrator RFP. Final design will be completed by the system integrator. Preliminary design shall define approximate location of gantries and the necessary support systems including but not limited to electrical, structural, traffic and general civil engineering drawings.

***Deliverable:*** *Draft System Requirements and Preliminary System Design Document.*

- **Draft Work and Deployment Plan.** This task will develop a work and deployment plan that includes a schedule and plan for the installation of all equipment and an assessment of project risks. The plan will include schedules that identify the anticipated timing of equipment installation, field testing, and acceptance for all equipment and software deployed at the roadside, Toll Data Center (TDC) and Transportation Management Center (TMC). The plan will identify all critical milestones and define the roles and responsibilities for oversight of the installation. The plan will also include the steps and schedule for deploying the various civil elements required to support the deployment of the system.

  ***Deliverable:*** *Draft Work and Deployment Plan.*

- **Draft Operations and Maintenance Plan.** This task will develop a conceptual operations and maintenance plan using the system requirements developed in the previous task. This plan will document the strategies to operate, administer, and maintain the system. The plan will incorporate the recommendations from the Con-Ops document to define and describe support required from Transportation Authority staff, partner agencies, interagency and private contracted services as well as financial resources that will be required to effectively operate, administer, maintain, and monitor the system. The operating and monitoring strategies will support the data collection and system evaluation requirements of the performance and evaluation plan.

  ***Deliverable:*** *Draft Operations and Maintenance Plan.*

- **Draft Enforcement Plan.** This task will develop an Enforcement Plan that evaluates both technology based automated enforcement options as well as the use of law enforcement personnel for visual enforcement of the System. The Enforcement Plan will include an evaluation of capital costs associated with the installation of any required enforcement related equipment and/or construction of enforcement zones and will also evaluate the ongoing operational costs associated with the enforcement strategy.

  ***Deliverable:*** *Draft Enforcement Plan.*

- **Draft Performance and Evaluation Plan.** The TITIP identifies project goals and principles consistent with the multi-modal and sustainable communities strategies defined in the Enforcement Plan. The strategies will be monitored regularly to evaluate Mobility Management Program effectiveness based on agreed upon performance measures for the congestion pricing and travel demand strategies and to guide the management of the system to best meet the needs of residents and visitors to Treasure Island. The Performance and Evaluation Plan will identify the process and procedures for collecting and reporting the results of the monitoring activities specific to the tolling and parking elements of the program. The system should be developed to accommodate automated evaluation and monitoring capabilities to the fullest extent that is financially and operationally possible.

  ***Deliverable:*** *Draft Performance and Evaluation Plan.*

- **Stakeholder and TAC Meetings -** The Transportation Authority will seek input from key project stakeholders throughout the System Development process. This Task will include attendance at quarterly stakeholder and TAC meetings to review project status and deliverables.

  ***Deliverable:*** *Attendance at quarterly stakeholder and TAC meetings.*

**Task 4: Finalize Systems Engineering Management Plan.** This task will involve finalizing the System Engineering Management Plan (SEMP). *(Optional Task with notice to proceed upon satisfactory completion of Task 3).*

**4.1 Develop Final SEMP.** Under this task, the draft SEMP developed in Task 3 will be finalized, revising draft documents as required and incorporating the additional elements listed below.

***Deliverable:*** *Final SEMP*

Additional elements to be included in final SEMP:

- **System Test Plan.** This task will develop the system test plans to evaluate functionality

of the systems developed by the system integrator. The test plans will consist of Factory Acceptance Tests (FAT), Field Equipment Tests (FET), and Systems Acceptance Tests (SAT). The test plans will evaluate the performance of all equipment that is specified by the system integrator and will be incorporated as part of the requirement of the System Integrator RFP. The FAT will be structured to evaluate the performance of the system in a simulated environment to verify that all functional and performance requirements are met with the new system. All equipment must pass the FAT prior to installation and deployment. The FET will be structured to evaluate the performance of the system upon completion of the installation and integration, prior to the opening of the facility. The SAT will specify the operational parameters that will be evaluated, and performance measures and testing period that will be required to evaluate the performance of the system under operating conditions. All equipment must pass the SAT prior to systems acceptance.

***Deliverables:*** *Draft and final systems test plans.*

- **Training Plan.** This task will develop a training plan for each of the discrete major subsystems of the system. The plan shall implement the latest technology to provide simple yet comprehensive training. The training plan will consist of the training materials necessary to give the level of training required for oversight and day-to-day operations of the system. In addition to the training materials, reference materials will be made available to ensure the long-term goals and requirements of the systems are continually met.

  ***Deliverables:*** *Draft and final training plan.*
- **Business Rules.** This Task will develop business rules for the system that describe how various scenarios should be handled by the toll system and by the customer service center. The business rules will build on the adopted toll policy and the Concept of Operations to define how day to day operations will be carried out including customer accounts, transaction processing, and violation processing.

  ***Deliverables:*** *Draft and final business rules.*

## Phase II

**Task 5 (optional): Development of engineering drawings and environmental clearance.** For this Task the System Manager is required to prepare preliminary engineering drawings, incorporating all applicable disciplines, for all capital improvements needed to support the tolling systems and associated elements proposed in the previous phase. This task also includes the preparation of environmental clearance studies and documents required for the tolling elements – if needed.

**5.1 – Prepare preliminary engineering drawings.** Engineering analysis and design for facilities necessary to accommodate the proposed tolling system, at the level consistent with a future design-build procurement contract for its implementation.

***Deliverables:*** *30% drawings, location and layout sheets, structural drawings, civil drawings, electrical drawings for capital improvements.*

**5.2 – Prepare environmental clearance documents – if necessary.** Prepare environmental documents and associated supporting studies necessary to obtain project clearance and approval from federal and state agencies.

***Deliverables:*** *Draft and final CEQA and NEPA documents.*

**Task 6 (optional): Develop the Systems Integrator RFP and Assist in the System Integrator Selection Process.** This task will involve finalizing the SEMP, the development of the RFP documents for the System Integrator and support of the Transportation Authority procurement effort for this contract.

**6.1 Develop System Integrator RFP and System Integrator Procurement.** Under this task, the approved system operating concept and system requirements, as well as the final version of the SEMP, will be used as the foundation to define the detailed functional design for the Mobility Management Program. This design will be stated in the form of functional and performance requirements and incorporated into the System Integrator RFP. The RFP will be utilized to ensure that the chosen system integrator designs and develops the hardware and software properly to allow the system to operate according to the RFP requirements while achieving the TITIP goals. The following are examples of the requirements that would be presented clearly to the prospective bidders in the RFP:

- Interoperability requirements including recommended consistency with other regional toll systems;
- Toll system requirements for in-lane subsystems including zone controller hardware/software, transaction processing, automatic vehicle identification, and variable message signs;
- Central processing system requirements including data management software and hardware, account management, and financial functions;
- Performance requirements including transponder and sensor read accuracy, image capture, and false read processing;
- Software requirements, including intellectual property (IP) ownership, rights to the delivered source code, how the Transportation Authority would be granted a perpetual license to utilize the software (or how they will become owners of the source code), software maintenance procedures, etc.;
- System design, development, integration testing at the factory level, installation and field testing procedures and requirements; etc.;
- System maintenance requirements;
- Testing and acceptance requirements;
- Design-Build contract drawings and specifications for all capital improvements;
- Installation, integration and operations requirements.

The RFP would also clearly specify, at a minimum, the following requirements:

1. System delivery schedule;
2. Project management approach;
3. Performance bonding;
4. System and capital improvements design and review process;
5. Test requirements;

6. Training requirements;
7. Documentation requirements;
8. Liquidated damages;
9. System acceptance requirements; and
10. Payment procedures.

***Deliverable:*** *RFP for Systems Integrator*

**6.2 System Integrator Selection and Contract Procurement.** This task includes assisting the Transportation Authority in the procurement process beginning with industry outreach through the period subsequent to release of the RFP all the way to issuance of notice-to-proceed to the selected system integrator. This task is anticipated to include the following tasks:

- Identify prospective system integrators that should be provided with a copy of the RFP;
- Assist the Transportation Authority in industry outreach activities prior to release of final RFP;
- Coordinate the pre-proposal conference and develop supporting materials as needed;
- Provide assistance to the Transportation Authority staff in the development of objective evaluation and scoring criteria consistent with selection requirements set by the Transportation Authority;
- Review and evaluate technical and cost proposals that are received and advise Transportation Authority evaluation committee in selecting or short-listing candidates for interviews. Subsequent to evaluating each proposal, the proposers will be ranked on their specific technical and cost merits;
- Assist the Transportation Authority in the interview process and selection of the most qualified team;
- Assist the Transportation Authority in the final contract negotiation process through notice to proceed.

***Deliverable:*** *Final Contract for Systems Integration Implementation*

## Phase III

**Task 7 (optional): Systems Integrator Contract Technical Oversight.** This task will involve monitoring of the system integrator activities during the system design, development, testing, deployment, and system acceptance phases of the project. During this task the System Manager will participate in the system design and factory testing process working closely with Transportation Authority and system integrator personnel.

**7.1 Integration Management.** This task will include management of all integration activities specified in the System Integrator RFP and contract performance requirements including but not limited to the following:

- Outline the project responsibilities and develop the lines of communication. Review and approve project management plan submitted by system integrator.
- Review, comment, and approve system integrator deliverables including but not limited

to:

a. Project management plan;

b. Preliminary and final design documents;

c. Software development and integration plan;

d. Communication plan;

e. Factory and field test plans;

f. Enforcement plan;

g. Interface plan for other facilities including but not limited to the Regional Express Lane Network and existing SFPark operations.

h. Interface plan(s) for partner agencies such as BATA, Caltrans, SFMTA, TIDA and other San Francisco agencies as applicable;

i. Training plan;

j. Installation plan;

k. System performance test plan;

l. Maintenance Plan.

- Manage, prioritize and resolve technical issues with the System Integrator.
- Review, comment and approve test results of all tests identified in the System Integrator contract.

***Deliverables:*** *Final Project Management Plan (PMP); comments on System Integrator deliverables; approvals of the final system integration deliverables; comments and approval for each test activity.*

**7.2 Schedule Management.** Complete all tasks necessary to review and maintain the System Integrator baseline schedule including tracking the critical path, deliverables, key decision points, and evaluating potential risks to the schedule.

- Review and approve project base schedule;
- Identify key decision points and communication of these items to the Transportation Authority staff;
- Manage schedule risk. Proactively identify schedule risks, recommend mitigation strategies, and document in the risk register;
- Implement proper corrective measures to bring the schedule back to baseline;
- Provide a monthly written update of the schedule during project progress meetings.

***Deliverables:*** *Final project base schedule and tracking of all updates; identify schedule risks along with changes to key milestones.*

**7.3 Risk Management.** The purpose of this task is to proactively identify integration risks including technical, schedule, contractual, quality and resources. For this task, the System Manager will develop a risk matrix, risk mitigation strategies and monitor and maintain a risk register.

***Deliverables:*** *Risk matrix draft and final; risk register including the cost/benefit analysis of decisions.*

**7.4 System Integrator Budget Management.** This task includes the management of the System Integrator overall budget. System Manager will review invoices and make recommendation for payment by the Transportation Authority, and review all contract change order requests. Furthermore, System Manager will perform budget control activities such as evaluation of available funding for contract changes or project delays and recommend remedies as required and becomes necessary.

***Deliverable:*** *Review of monthly system integrator invoices.*

**7.5 Tolling Policy.** The System Manager will coordinate with the Transportation Authority during the system integration phase to identify and institute any changes to the adopted toll policy that may be required.

***Deliverables:*** *Updated policy and business rules report.*

**7.6 Testing.** The System Manager will oversee and manage all system tests including factory acceptance tests, field equipment tests, and system acceptance tests.

***Deliverables:*** *Test Scripts; FAT test report and approval recommendation; FET test report and approval recommendation; SAT test report and approval recommendation, or others as required.*

**7.7 Oversight of Equipment Installation and Integration.** The System Manager will monitor the installation of all equipment and the integration of all systems prior to the opening of the facility. Tasks include:

- Review of system integrator's installation plans and drawings;
- On-site inspections of the actual installation work;
- Coordinate work with partner agencies and stakeholders including SFMTA, TICD, Caltrans, and BATA as appropriate;
- Monitor testing throughout the installation and integration phase to insure all equipment is operating consistent with contract requirements;
- Coordinate with project partners and stakeholder on communications, outreach and public education prior to the opening of the facility;
- Review operations and maintenance protocols prior to the opening of the facility.
- Develop a transition plan and training of TIMMA staff and/or designated representative in operations of the System prior to opening

***Deliverables:*** *Review, comment, and approval of the equipment installation plan; reports on the equipment site inspection; field test procedure; review and approve training manual developed by system integrator; transition plan for agency operation of the system.*

### Phase IV

**Task 8 (optional): Provide Operations Support.** If required by Transportation Authority, the System Manager will continue to support the project by performing this optional task which includes the following:

- Review of system operations;
- Review the pricing functionality of the system;

- Review and reconcile all transaction and financial reports that detail funds to be paid to the TIMMA;
- Access toll lane customer FasTrak information when issues arise that require this type of account investigation;
- Hold discussions with the BATA RCSC operations manager, as required;
- Using the CCTV subsystem, observe tolling and enforcement operations;
- Review and provide inputs to the law enforcement system enforcement protocol;
- Periodically check the CCTV streaming video process to the system management center;
- Participate in any marketing programs and/or activities;
- Coordinate with the system integrator maintenance supervisor and technicians to make sure that Maintenance On-Line Management System (MOMS) identified problems are resolved within the time periods presented in the RFP;
- Carefully plan with Public Works staff and closely monitor any roadway maintenance activities that may impact the system; and
- Monitor the system preventive maintenance schedules to ensure that the system equipment/software maintenance is being conducted properly.