

Transmittal 5

Sub-Recipient Agreement with Productivity Apex, Inc.

To	From
	BOARD OF HARBOR COMMISSIONERS
	EXECUTIVE DIRECTOR
	DED & CHIEF OF STAFF
	DED & CHIEF FINANCIAL OFFICER
	CHIEF OF PUBLIC SAFETY & EMERG MGT
	DED - MKTG & CUSTOMER RELATIONS
	DED - DEVELOPMENT
	SR DIRECTOR, COMMUNICATIONS
	SR DIRECTOR, GOVERNMENT AFFAIRS
	ACCOUNTING
	CARGO/INDUSTRIAL REAL ESTATE
	CARGO MARKETING
	CITY ATTORNEY
	COMMISSION OFFICE
	COMMUNITY RELATIONS
	CONSTRUCTION
	CONSTRUCTION & MAINTENANCE
	CONTRACTS & PURCHASING
	DEBT & TREASURY MANAGEMENT
	EMERGENCY MANAGEMENT

CITY OF LOS ANGELES
HARBOR DEPARTMENT
OFFICE MEMORANDUM

November 22, 2016

To	From
	ENGINEERING
	ENVIRONMENTAL MANAGEMENT
	FINANCIAL MANAGEMENT
XX	GOODS MOVEMENT
	GRAPHICS
	HUMAN RESOURCES
	INFORMATION TECHNOLOGY
	LEGISLATIVE AFFAIRS
	MANAGEMENT AUDIT
	MEDIA RELATIONS
	PLANNING & STRATEGY
	PORT PILOTS
	PORT POLICE
	RISK MANAGEMENT
	TRADE DEVELOPMENT
	WATERFRONT/COMM REAL ESTATE
	WHARFINGERS

**SUBJECT: AGREEMENT BETWEEN THE CITY AND PRODUCTIVITY APEX FOR THE
ADVANCED YARD TRACTOR DEVELOPMENT AND ECO-FRATIS DRAYAGE
TRUCK EFFICIENCY PROJECT**

Pursuant to your request, transmitted herewith in final form is a copy of the above-referenced agreement for further processing by your office. When two copies have been executed by PAI, please return to this office for approval as to form.


HEATHER M. McCLOSKEY
Deputy City Attorney

HMM:aw
Attachment

AGREEMENT NO. _____

AGREEMENT BETWEEN
THE CITY OF LOS ANGELES AND
PRODUCTIVITY APEX, INC.

THIS AGREEMENT ("Agreement") is made and entered into by and between the CITY OF LOS ANGELES, a municipal corporation ("City"), acting by and through its Board of Harbor Commissioners ("Board") and PRODUCTIVITY APEX, INC., a Florida corporation, 11301 Corporate Blvd., Suite 303, Orlando, Florida 32817 (hereinafter "PAI" or "Subrecipient").

WHEREAS, the City of Los Angeles Harbor Department ("Department" or "Port") in August 2016 was awarded a grant, in the amount of \$5,833,000 by the California Energy Commission ("CEC") through its Alternative and Renewable Fuel and Vehicle Technology Program Freight Transportation Projects at California Seaports; and

WHEREAS, to accept the grant award, the Department will enter into a Project Grant Agreement with the CEC; and

WHEREAS, a portion of the Grant Agreement, in the amount of \$970,000, will fund an ECO-FRATIS Drayage Truck Efficiency Project ("Project") to implement various technology systems on drayage trucks serving the Port of Los Angeles and the Port of Long Beach which will decrease traffic congestion, fuel consumption and truck emissions by improving the efficiency of logistics, cargo movement and driver behavior; and

WHEREAS, the Los Angeles County Metropolitan Transportation Authority ("Metro") will award, and the City will accept, a Measure R Funding Agreement in the amount of \$240,000 for the Project ("Metro Agreement"), which will be considered matching funds under the CEC Grant Agreement; and

WHEREAS, PAI will be responsible for managing and implementing all aspects of the Project pursuant to the terms of this Agreement, including the contribution of matching funds in the amount of approximately \$115,000 from PAI, as well as obtaining matching funds and in-kind contributions from other Project participants as described in the Project Grant Agreement; and

WHEREAS, the Department will provide administrative oversight for the Project and act as fiduciary agent for reimbursement of funds for Project expenditures in amounts from the CEC not to exceed \$970,000 and from Metro not to exceed \$240,000, for a total reimbursement amount of \$1,210,000;

NOW, THEREFORE, IT IS MUTUALLY AGREED AS FOLLOWS:

I. SERVICES TO BE PERFORMED BY SUBRECIPIENT

A. Subrecipient shall, to the satisfaction of City and in accordance with all local, state and federal rules and requirements, perform the Project as set forth in:

- (i) Grant Agreement, ARV-15-069, entered into between the CEC and City ("Grant Agreement"), attached hereto as Exhibit A and hereby made a part of this Agreement; and
- (ii) Metro Agreement, FA# MR30640, entered into between METRO and City ("Metro Agreement"), attached hereto as Exhibit B and hereby made a part of this Agreement.
- (iii) A Scope of Work specific to Subrecipient's Project is set forth in Exhibit C and hereby made a part of this Agreement. The parties agree that in the event of a conflict regarding the Project between Exhibit C and either Exhibit A or B, then Exhibit A or B shall prevail, as applicable.

B. Subrecipient, at its sole cost and expense, shall furnish all services, materials, equipment, subsistence, transportation and all other items necessary to perform the Project as set forth in the Grant Agreement, and as may be amended from time to time by CEC and City. In completing the Project, Subrecipient shall utilize the cooperative efforts, matching funds and in-kind contributions from the Metro Agreement and from those entities submitting Letters of Commitment in support of the Project (hereinafter referred to collectively as "subconsultants"), attached hereto as Exhibit D.

C. As between City and Subrecipient, Subrecipient is solely responsible for any taxes or fees which may be assessed against it or its employees resulting from performance of the Project, whether social security, payroll or other, and regardless of whether assessed by the federal government, any state, the City, or any other governmental entity.

D. Subrecipient acknowledges and agrees that it lacks authority to perform any services outside those set forth in the Grant Agreement and the Metro Agreement. Subrecipient further acknowledges and agrees that any services it performs outside these two agreements are performed as a volunteer and shall not be compensable under this Agreement.

E. Subrecipient shall be subject to, and perform the Project in accordance with, the terms and conditions set forth in this Agreement, the Grant Agreement and the Metro Agreement. Obligations of either the Grant Agreement or the Metro Agreement, whether undertaken by Subrecipient or its subconsultants, are and shall be the responsibility of Subrecipient. Subrecipient acknowledges and agrees that this Agreement creates no rights in its subconsultants with respect to City and that obligations that may be owed to its subconsultants, including, but not limited to, the obligation to pay subconsultants for services performed, are those of Subrecipient alone. Upon Executive Director's written request, Subrecipient shall supply the Department with all agreements between it and its subconsultants.

II. SERVICES TO BE PERFORMED BY CITY

A. City shall furnish Subrecipient, upon its request, all documents and papers in possession of City which may lawfully be supplied to Subrecipient and which are necessary for it to perform its obligations, including any amendments to the Grant Agreement.

B. The Executive Director or his or her designee is designated as the contract administrator for City and shall also decide any and all questions which may arise as to the quality or acceptability of the services performed and the manner of performance, the interpretation of instructions to Subrecipient and the acceptable completion of this Agreement, the Grant Agreement, the Metro Agreement and the amount of reimbursement due. Notwithstanding the preceding, the termination of this Agreement shall be governed by the provisions of Article XI (Termination) hereof.

III. EFFECTIVE DATE AND TERM OF AGREEMENT

A. Subject to the provisions of Charter Section 245, the effective date of this Agreement shall be the date of its execution by Executive Director upon authorization of the Board. Subrecipient is aware that the City Council, pursuant to Charter Section 245 of the City of Los Angeles, has the right to review this Agreement. Accordingly, in no event shall this Agreement become effective until the sixth Council meeting day after Board action or the City Council's approval of the Agreement.

B. This Agreement shall be in full force and effect commencing from the date of execution and shall continue until the earlier of the following occurs:

1. Three (3) years have lapsed from the effective date of this Agreement; or
2. Funding under the Grant Agreement or the Metro Agreement is no longer available for any reason. City shall provide written notice to Subrecipient and the amount of reimbursement available and due to Subrecipient shall be determined by the CEC and the terms of the Grant Agreement or Metro and the terms of the Metro Agreement, as applicable. Subrecipient shall remain responsible for complying with all reporting and recordkeeping requirements; or
3. The Board of Harbor Commissioners, in its sole discretion, terminates and cancels all or part of this Agreement for any reason upon giving to Subrecipient ten (10) days' notice in writing of its election to cancel and terminate this Agreement. Subrecipient shall be entitled to reimbursement for expenses incurred in accordance with this Agreement, the Grant Agreement and the Metro Agreement as of the date the ten days notice period ends. City shall determine the amount of reimbursement due to Subrecipient, which shall be determined in accordance with the Grant Agreement and the Metro

Agreement. Subrecipient shall remain responsible for complying with all reporting and recordkeeping requirements; or

4. Subrecipient, in its sole discretion, terminates and cancels all or any part of this Agreement for any reason upon giving to City ten (10) days' notice in writing of its election to cancel and terminate this Agreement. Subrecipient shall be entitled to reimbursement for expenses incurred in accordance with the Grant Agreement and the Metro Agreement, which amount shall be determined by the respective granting agency. Subrecipient shall remain responsible for complying with all reporting and recordkeeping requirements.

IV. REIMBURSEMENT AND PAYMENT

A. As reimbursement for the satisfactory performance of the Project as set forth in the Grant Agreement, the Metro Agreement and as required by this Agreement, City shall reimburse Subrecipient in the amounts set forth in Exhibit A and Exhibit B. The parties acknowledge and agree that Subrecipient shall be obligated to make expenditures for the Project prior to reimbursement by City. The parties also acknowledge and agree that the City shall not be obligated to reimburse Subrecipient for any expenditures made for the Project unless and until payment has been authorized, approved and all funds released by either the CEC or Metro to the City pursuant to the Grant Agreement or the Metro Agreement, respectively.

B. The maximum amount to be reimbursed to Subrecipient pursuant to this Agreement and as stated in the Grant Agreement (\$970,000) and the Metro Agreement (\$240,000) shall be One Million Two Hundred Ten Thousand Dollars (\$1,210,000).

C. Subrecipient shall submit documentation, progress reports and invoices to City on a deliverable basis or as otherwise required by either the Grant Agreement or the Metro Agreement, as applicable, following the effective date of this Agreement for Project activities performed. Subrecipient may invoice on a monthly basis for the percentage of progress made on deliverables. Each such invoice shall be signed by the Subrecipient and shall include the following certification:

"I certify under penalty of perjury that the above bill is just and correct according to the terms of Agreement No. _____ and that payment has not been received. I further certify that I have complied with the provisions of the City's Living Wage Ordinance.

(Subrecipient's Signature)

D. Subrecipient must include on the face of each itemized invoice submitted for payment its Business Tax Registration Certificate number, as required at Article VIII of this Agreement. No invoice will be processed for payment by City without this number shown thereon. All invoices shall be approved by the Executive Director or his

or her designee prior to payment. All invoices due and payable and found to be in order shall be paid as soon as, in the ordinary course of City business, the same may be approved, audited and paid.

Subrecipient shall submit appropriate supporting documents with each invoice. Such documents may include provider invoices, payrolls, and time sheets. The City may require, and Subrecipient shall provide, all documents reasonably required to determine whether amounts on the invoice are allowable expenses under this Agreement or as may be requested by the CEC or Metro. All invoices are subject to audit.

E. For payment and processing, all invoices should be mailed to the following address:

Accounts Payable Section
Harbor Department, City of Los Angeles
P.O. Box 191
San Pedro, CA 90733-0191

V. EMISSION REDUCTION CREDITS

Any emissions reduction credits generated by the work performed pursuant to this Agreement cannot be used or claimed by Subrecipient for any purpose.

VI. RECORDKEEPING AND AUDIT RIGHTS

A. Subrecipient shall keep and maintain full, complete and accurate books of accounts and records of the services performed under this Agreement in accordance with generally accepted accounting principles consistently applied, which books and records shall be readily accessible to and open for inspection and copying at the premises by City, its auditors or other authorized representatives. Notwithstanding any other provision of this Agreement, failure to do so shall constitute a conclusive waiver of any right to reimbursement for such services as are otherwise compensable hereunder. Such books and records shall be maintained by Subrecipient for a period of three (3) years after completion of services to be performed under this Agreement, as required by the Grant Agreement or the Metro Agreement, or until all disputes, appeals, litigation or claims arising from this Agreement have been resolved, whichever period is longest.

B. During the term of this Agreement, City may audit, review and copy any and all writings (as that term is defined in Section 250 of the California Evidence Code) of Subrecipient and subconsultants arising from or related to this Agreement or performance of the Scope of Work, whether such writings are (a) in final form or not, (b) prepared by Subrecipient, subconsultants or any individual or entity acting for or on behalf of Subrecipient or a subconsultant, and (c) without regard to whether such writings have previously been provided to City. Subrecipient shall be responsible for obtaining access to and providing writings of subconsultants. Subrecipient shall provide

City at Subrecipient's sole cost and expense a copy of all such writings within fourteen (14) calendar days of a written request by City. City's right shall also include inspection at reasonable times of the Subrecipient's office or facilities which are engaged in the performance of the Scope of Work. Subrecipient shall, at no cost to City, furnish reasonable facilities and assistance for such review and audit. Subrecipient's failure to comply with this Article VI shall constitute a material breach of this Agreement and shall entitle City to withhold any payment due under this Agreement until such breach is cured.

VII. INDEPENDENT CONTRACTOR

Subrecipient, in the performance of the work required by this Agreement, is an independent contractor and not an agent or employee of City. Subrecipient shall not represent itself as an agent or employee of the City and shall have no power to bind the City in contract or otherwise.

VIII. BUSINESS TAX REGISTRATION CERTIFICATE

The City of Los Angeles Office of Finance requires the implementation and enforcement of Los Angeles Municipal Code Section 21.09 et seq. This Code Section provides that every person, other than a municipal employee, who engages in any business within the City of Los Angeles, is required to obtain the necessary Business Tax Registration Certificate and pay business taxes. The City Controller has determined that this Code Section applies to consulting firms that are doing work for the Department. See Exhibit E.

IX. INDEMNIFICATION

Except for the sole negligence or willful misconduct of the City, or any of its Boards, Officers, Agents, Employees, Assigns and Successors in Interest, Subrecipient undertakes and agrees to defend, indemnify and hold harmless the City and any of its Boards, Officers, Agents, Employees, Assigns, and Successors in Interest from and against all suits and causes of action, claims, losses, demands and expenses, including, but not limited to, attorney's fees (both in house and outside counsel) and cost of litigation (including all actual litigation costs incurred by the City, including but not limited to, costs of experts and consultants), damages or liability of any nature whatsoever, for death or injury to any person, including Subrecipient's employees and agents, or damage or destruction of any property of either party hereto or of third parties, arising in any manner by reason of the negligent acts, errors, omissions or willful misconduct incident to the performance of this Agreement by Subrecipient or its subcontractors of any tier. Rights and remedies available to the City under this provision are cumulative of those provided for elsewhere in this Agreement and those allowed under the laws of the United States, the State of California, and the City.

X. INSURANCE

A. In addition to and not as a substitute for, or limitation of, any of the indemnity obligations imposed by Section IX, Subrecipient shall procure and maintain at its sole cost and expense and keep in force at all times during the term of this Agreement the following insurance:

(1) Commercial General Liability Insurance

Commercial general liability insurance covering personal and advertising injury, bodily injury, and property damage providing contractual liability, independent contractors, products and completed operations, and premises/operations coverage written by an insurance company authorized to do business in the State of California rated VII, A- or better in Best's Insurance Guide (or an alternate guide acceptable to City if Best's is not available) within Subrecipient's normal limits of liability but not less than One Million Dollars (\$1,000,000) combined single limit for injury or claim. Said limits shall provide first dollar coverage except that Executive Director may permit a self-insured retention or self-insurance in those cases where, in his or her judgment, such retention or self-insurance is justified by the net worth of Subrecipient. The retention or self-insurance provided shall provide that any other insurance maintained by the Harbor Department shall be excess of Subrecipient's insurance and shall not contribute to it. In all cases, regardless of any deductible or retention, said insurance shall contain a defense of suits provision and a severability of interest clause. Each policy shall name the City of Los Angeles Harbor Department, its officers, agents and employees as Primary additional insureds.

(2) Professional Liability Insurance

Subrecipient is required to provide Professional Liability insurance with respect to negligent or wrongful acts, errors or omissions, or failure to render services in connection with the professional services to be provided under this Agreement. This insurance shall protect against claims arising from professional services of the insured, or by its employees, agents, or contractors, and include coverage (or no exclusion) for contractual liability.

Subrecipient certifies that it now has professional liability insurance in the amount of One Million Dollars (\$1,000,000), which covers work to be performed pursuant to this Agreement and that it will keep such insurance or its equivalent in effect at all times during performance of said Agreement and until two (2) years following acceptance of the completed project by Board.

B. Insurance Procured by Subrecipient on Behalf of City

In addition to and not as a substitute for, or limitation of, any of the indemnity obligations imposed by Section IX, and where Subrecipient is required to name the City of Los Angeles Harbor Department, its officers, agents and employees as Primary additional insureds on any insurance policy required by this Agreement, Subrecipient shall cause City to be named as an additional insured on all policies it procures in

connection with this Section X. Subrecipient shall cause such additional insured status to be reflected in the original policy or by additional insured endorsement (CG 2010 or equivalent) substantially as follows:

"Notwithstanding any inconsistent statement in the policy to which this endorsement is attached, or any endorsement or certificate now or hereafter attached hereto, it is agreed that City, Board, their officers, agents and employees, are additional insureds hereunder, and that coverage is provided for all contractual obligations, operations, uses, occupations, acts and activities of the insured under Agreement No. ____, and under any amendments, modifications, extensions or renewals of said Agreement regardless of where such contractual obligations, operations, uses, occupations, acts and activities occur.

"The policy to which this endorsement is attached shall provide a 10-days notice of cancellation for nonpayment of premium, and a 30-days notice of cancellation for any other reasons to the Risk Manager.

"The coverage provided by the policy to which this endorsement is attached is primary coverage and any other insurance carried by City is excess coverage;

"In the event of one of the named insured's incurring liability to any other of the named insureds, this policy shall provide protection for each named insured against whom claim is or may be made, including claims by other named insureds, in the same manner as if separate policies had been issued to each named insured. Nothing contained herein shall operate to increase the company's limit of liability; and

"Notice of occurrences or claims under the policy shall be made to the Risk Manager of City's Harbor Department with copies to the City Attorney's Office."

C. Required Features of Coverages

Insurance procured by Subrecipient in connection with this Section X shall include the following features:

(1) Acceptable Evidence and Approval of Insurance

Electronic submission is the required method of submitting Subrecipient's insurance documents. Subrecipient's insurance broker or agent shall register with the City's online insurance compliance system **Track4LA**™ at <http://track4la.lacity.org/> and submit the appropriate proof of insurance on Subrecipient's behalf.

Upon request by City, Subrecipient shall furnish full copies of certified policies of any insurance policy required herein. This obligation is intended to, and shall, survive the expiration or earlier termination of this Agreement.

(2) Carrier Requirements

All insurance which Subrecipient is required to provide pursuant to this Agreement shall be placed with insurance carriers authorized to do business in the State of California and which are rated A-, VII or better in Best's Insurance Guide. Carriers without a Best's rating shall meet comparable standards in another rating service acceptable to City.

(3) Notice of Cancellation

Each insurance policy described above shall provide that it shall not be canceled or reduced in coverage until after the Board of Harbor Commissioners, Attention: Risk Manager and the City Attorney of City have each been given a 10-days notice of cancellation for nonpayment of premium and a 30-days notice of cancellation for any other reason by written notice by registered mail addressed to 425 S. Palos Verdes Street, San Pedro, California 90731.

(4) Modification of Coverage

Executive Director, at his or her sole reasonable discretion, based upon recommendation of independent insurance consultants to City, may increase or decrease amounts and types of insurance coverage required hereunder at any time during the term hereof by giving ninety (90) days' prior written notice to Subrecipient.

(5) Renewal of Policies

At least thirty (30) days prior to the expiration of any policy required by this Agreement, Subrecipient shall renew or extend such policy in accordance with the requirements of this Agreement and direct their insurance broker or agent to submit to the City's online insurance compliance system **Track4LA**™ at <http://track4la.lacity.org/> a renewal endorsement or renewal certificate or, if new insurance has been obtained, evidence of insurance as specified above. If Subrecipient neglects or fails to secure or maintain the insurance required above, Executive Director may, at his or her own option but without any obligation, obtain such insurance to protect City's interests. The cost of such insurance shall be deducted from the next payment due Subrecipient.

(6) Limits of Coverage

If Subrecipient maintains higher limits than the minimums required by this Agreement, City requires and shall be entitled to coverage for the higher limits maintained by Subrecipient. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to City.

D. Right to Self-Insure

Upon written approval by the Executive Director, Subrecipient may self-insure if the following conditions are met:

1. Subrecipient has a formal self-insurance program in place prior to execution of this Agreement. If a corporation, Subrecipient must have a formal resolution of its board of directors authorizing self-insurance.
2. Subrecipient agrees to protect the City, its boards, officers, agents and employees at the same level as would be provided by full insurance with respect to types of coverage and minimum limits of liability required by this Agreement.
3. Subrecipient agrees to defend the City, its boards, officers, agents and employees in any lawsuit that would otherwise be defended by an insurance carrier.
4. Subrecipient agrees that any insurance carried by Department is excess of Subrecipient's self-insurance and will not contribute to it.
5. Subrecipient provides the name and address of its claims administrator.
6. Subrecipient submits its most recently filed 10-Q and its 10-K or audited annual financial statements for the three most recent fiscal years prior to Executive Director's consideration of approval of self-insurance and annually thereafter.
7. Subrecipient agrees to inform Department in writing immediately of any change in its status or policy which would materially affect the protection afforded Department by this self-insurance.
8. Subrecipient has complied with all laws pertaining to self-insurance.

E. Accident Reports

Subrecipient shall report in writing to Executive Director within fifteen (15) calendar days after it, its officers or managing agents have knowledge of any accident or occurrence involving death of or injury to any person or persons, or damage in excess of Five Hundred Dollars (\$500.00) to property, occurring upon the premises, or elsewhere within the Port of Los Angeles if Subrecipient's officers, agents or employees are involved in such an accident or occurrence. Such report shall contain to the extent available (1) the name and address of the persons involved, (2) a general statement as to the nature and extent of injury or damage, (3) the date and hour of occurrence, (4) the names and addresses of known witnesses, and (5) such other information as may be known to Subrecipient, its officers or managing agents.

XI. TERMINATION PROVISION

The Board of Harbor Commissioners, in its sole discretion, shall have the right to terminate and cancel all or any part of this Agreement for any reason upon giving the Subrecipient ten (10) days' advance, written notice of the Board's election to cancel and terminate this Agreement. It is agreed that any Agreement entered into shall not limit the right of the City to hire additional subrecipients or perform the services described in this Agreement either during or after the term of this Agreement.

XII. PERSONAL SERVICE AGREEMENT

A. During the term hereof, Subrecipient agrees that it will not enter into other contracts or perform any work without the written permission of the Executive Director where the work may conflict with the interests of the Department.

B. Any assignment or other transfer of this Agreement or any part hereof shall be void provided, however, that Subrecipient may permit subconsultant(s) to perform portions of the Scope of Work in accordance with Article I. All subconsultants whom Subrecipient utilizes, however, shall be deemed to be its agents. Subconsultants' performance of the Scope of Work shall not be deemed to release Subrecipient from its obligations under this Agreement or to impose any obligation on the City to such subconsultant(s) or give the subconsultant(s) any rights against the City.

XIII. AFFIRMATIVE ACTION

Subrecipient, during the performance of this Agreement, shall not discriminate in its employment practices against any employee or applicant for employment because of employee's or applicant's race, religion, national origin, ancestry, sex, age, sexual orientation, disability, marital status, domestic partner status, or medical condition. The provisions of Section 10.8.4 of the Los Angeles Administrative Code shall be incorporated and made a part of this Agreement. All subcontracts awarded shall contain a like nondiscrimination provision. See Exhibit F.

XIV. SMALL/VERY SMALL BUSINESS ENTERPRISE PROGRAM AND LOCAL BUSINESS PREFERENCE PROGRAM

It is the policy of the Department to provide Small Business Enterprises (SBE), Very Small Business Enterprises (VSBE) and Minority-Owned, Women-Owned, Disabled Veteran Business Enterprises and all Other Business Enterprises (MBE/WBE/DVBE/OBE) an equal opportunity to participate in the performance of all City contracts in all areas where such contracts afford such participation opportunities. Subrecipient shall assist the City in implementing this policy and shall use its best efforts to afford the opportunity for SBEs, VSBEs, MBEs, WBEs, DVBEs, and OBEs to achieve participation in subcontracts where such participation opportunities present

themselves and attempt to ensure that all available business enterprises, including SBEs, VSBES, MBEs, WBEs, DVBEs, and OBEs, have equal participation opportunity which might be presented under this Agreement. See Exhibit G.

It is also the policy of the Department to support an increase in local and regional jobs. The Department's Local Business Preference Program aims to benefit the Southern California region by increasing jobs and expenditures within the local and regional private sector. Subrecipient shall assist the City in implementing this policy and shall use its best efforts to afford the opportunity for Local Business Enterprises to achieve participation in subcontracts where such participation opportunities present themselves.

NOTE: Prior to being awarded a contract with the City, Subrecipient and all Subconsultants must be registered on the City's Contracts Management and Opportunities Database, Los Angeles Business Assistance Virtual Network (LABAVN), at <http://www.labavn.org>.

XV. CONFLICT OF INTEREST

It is hereby understood and agreed that the parties to this Agreement have read and are aware of the provisions of Section 1090 et seq. and Section 87100 et seq. of the California Government Code relating to conflict of interest of public officers and employees, as well as the Los Angeles Municipal Code (LAMC) Municipal Ethics and Conflict of Interest provisions of Section 49.5.1 et seq. and the Conflict of Interest Codes of the City and the Department. All parties hereto agree that they are unaware of any financial or economic interest of any public officer or employee of City relating to this Agreement. Notwithstanding any other provision of this Agreement, it is further understood and agreed that if such financial interest does exist at the inception of this Agreement, City may immediately terminate this Agreement by giving written notice thereof.

XVI. COMPLIANCE WITH APPLICABLE LAWS

Subrecipient shall at all times in the performance of its obligations comply with all applicable laws, statutes, ordinances, rules and regulations, and with the reasonable requests and directions of Executive Director.

XVII. GOVERNING LAW / VENUE

This Agreement shall be governed by and construed in accordance with the laws of the State of California, without reference to the conflicts of law, rules and principles of such State. The parties agree that all actions or proceedings arising in connection with this Agreement shall be tried and litigated exclusively in the State or Federal courts located in the County of Los Angeles, State of California, in the judicial district required by court rules.

XVIII. TRADEMARKS, COPYRIGHTS, AND PATENTS

Subrecipient agrees to save, keep, hold harmless, protect and indemnify the City and any of its officers or agents from any damages, cost, or expenses in law or equity from infringement of any patent, trademark, service mark or copyright of any person or persons, or corporations in consequence of the use by City of any materials supplied by Subrecipient in the performance of this Agreement.

XIX. PROPRIETARY INFORMATION

If research or development is furnished in connection with this Agreement and if, in the course of such research or development, patentable work product is produced by Subrecipient, its officers, agents, employees, or subconsultants, the City shall have, without cost or expense to it, an irrevocable, non-exclusive royalty-free license to make and use, itself or by anyone on its behalf, such work product in connection with any activity now or hereafter engaged in or permitted by City. Upon City's request, Subrecipient, at its sole cost and expense, shall promptly furnish or obtain from the appropriate person a form of license satisfactory to the City. It is expressly understood and agreed that, as between City and Subrecipient, the referenced license shall arise for City's benefit immediately upon the production of the work product, and is not dependent on the written license specified above. City may transfer such license to its successors in the operation or ownership of any real or personal property now or hereafter owned or operated by City.

XX. CONFIDENTIALITY

The data, documents, reports, or other materials which contain information relating to the review, documentation, analysis and evaluation of the work described in this Agreement and any recommendations made by Subrecipient relative thereto shall be considered confidential and shall not be reproduced, altered, used or disseminated by Subrecipient or its employees or agents in any manner except and only to the extent necessary in the performance of the work under this Agreement. In addition, Subrecipient is required to safeguard such information from access by unauthorized personnel.

XXI. NOTICES

In all cases where written notice is to be given under this Agreement, service shall be deemed sufficient if said notice is deposited in the United States mail, postage prepaid. When so given, such notice shall be effective from the date of mailing of the same. For the purposes hereof, unless otherwise provided by notice in writing from the respective parties, notice to the Department shall be addressed to Director of Goods Movement, Los Angeles Harbor Department, P.O. Box 151, San Pedro, California 90733-0151, and notice to Subrecipient shall be addressed to it at the address set forth above. Nothing herein contained shall preclude or render inoperative service of such notice in the manner provided by law.

XXII. TAXPAYER IDENTIFICATION NUMBER (TIN)

The Internal Revenue Service (IRS) requires that all consultants and suppliers of materials and supplies provide a TIN to the party that pays them. Subrecipient declares that it has an authorized TIN which shall be provided to the Department prior to payment under this Agreement. No payments will be made under this Agreement without a valid TIN.

XXIII. SERVICE CONTRACTOR WORKER RETENTION POLICY AND LIVING WAGE POLICY REQUIREMENTS

The Board of Harbor Commissioners of the City of Los Angeles adopted Resolution No. 5771 on January 13, 1999, agreeing to adopt the provisions of Los Angeles City Ordinance No. 171004 relating to Service Contractor Worker Retention (SCWR), Section 10.36 et seq. of the Los Angeles Administrative Code, as the policy of the Department. Further, Charter Section 378 requires compliance with the City's Living Wage requirements as set forth by ordinance, Section 10.37 et seq. of the Los Angeles Administrative Code. Subrecipient shall comply with the policy wherever applicable. Violation of this provision, where applicable, shall entitle the City to terminate this Agreement and otherwise pursue legal remedies that may be available.

XXIV. WAGE AND EARNINGS ASSIGNMENT ORDERS / NOTICES OF ASSIGNMENTS

The Subrecipient and/or any subconsultant are obligated to fully comply with all applicable state and federal employment reporting requirements for the Subrecipient and/or subconsultant's employees.

The Subrecipient and/or subconsultant shall certify that the principal owner(s) are in compliance with any Wage and Earnings Assignment Orders and Notices of Assignments applicable to them personally. The Subrecipient and/or Subconsultant will fully comply with all lawfully served Wage and Earnings Assignment Orders and Notices of Assignments in accordance with Cal. Family Code Sections 5230 et seq. The Subrecipient or Subconsultant will maintain such compliance throughout the term of this Agreement.

XXV. EQUAL BENEFITS POLICY

The Board of Harbor Commissioners of the City of Los Angeles adopted Resolution No. 6328 on January 12, 2005, agreeing to adopt the provisions of Los Angeles City Ordinance No. 172,908, as amended, relating to Equal Benefits, Section 10.8.2.1 et seq. of the Los Angeles Administrative Code, as a policy of the Department. Subrecipient shall comply with the policy wherever applicable. Violation of this policy shall entitle the City to terminate any Agreement with Subrecipient and pursue any and all other legal remedies that may be available. See Exhibit H.

XXVI. COMPLIANCE WITH LOS ANGELES CITY CHARTER SECTION 470(c)(12)

The Subrecipient, subconsultants, and their Principals are obligated to fully comply with City of Los Angeles Charter Section 470(c)(12) and related ordinances, regarding limitations on campaign contributions and fundraising for certain elected City officials or candidates for elected City office if the agreement is valued at \$100,000 or more and requires approval of a City elected official. Additionally, Subrecipient is required to provide and update certain information to the City as specified by law. Any Subrecipient subject to Charter Section 470(c)(12), shall include the following notice in any contract with a subconsultant expected to receive at least \$100,000 for performance under this Agreement:

Notice Regarding Los Angeles Campaign Contribution and Fundraising Restrictions

As provided in Charter Section 470(c)(12) and related ordinances, you are a subconsultant on Harbor Department Agreement No. _____. Pursuant to City Charter Section 470(c)(12), subconsultant and its principals are prohibited from making campaign contributions and fundraising for certain elected City officials or candidates for elected City office for 12 months after the Agreement is signed. Subconsultant is required to provide to Subrecipient names and addresses of the subconsultant's principals and contact information and shall update that information if it changes during the 12 month time period. Subconsultant's information must be provided to Subrecipient within 10 business days. Failure to comply may result in termination of the Agreement or any other available legal remedies including fines. Information about the restrictions may be found at the City Ethics Commission's website at <http://ethics.lacity.org/> or by calling 213-978-1960.

Subrecipient, subconsultants, and their Principals shall comply with these requirements and limitations. Violation of this provision shall entitle the City to terminate this Agreement and pursue any and all legal remedies that may be available.

XXVII. STATE TIDELANDS GRANTS

This Agreement is entered into in furtherance of and as a benefit to the State Tidelands Grant and the trust created thereby. Therefore, this Agreement is at all times subject to the limitations, conditions, restrictions and reservations contained in and prescribed by the Act of the Legislature of the State of California entitled "An Act Granting to the City of Los Angeles the Tidelands and Submerged Lands of the State Within the Boundaries of Said City," approved June 3, 1929 (Stats. 1929, Ch. 651), as amended, and provisions of Article VI of the Charter of the City of Los Angeles relating to such lands. Subrecipient agrees that any interpretation of this Agreement and the

terms contained herein must be consistent with such limitations, conditions, restrictions and reservations.

XXVIII. INTEGRATION

This Agreement contains the entire understanding and agreement between the parties hereto with respect to the matters referred to herein. No other representations, covenants, undertakings, or prior or contemporaneous agreements, oral or written, regarding such matters which are not specifically contained, referenced, and/or incorporated into this Agreement by reference shall be deemed in any way to exist or bind any of the parties. Each party acknowledges that it has not been induced to enter into the Agreement and has not executed the Agreement in reliance upon any promises, representations, warranties or statements not contained, referenced, and/or incorporated into the Agreement. **THE PARTIES ACKNOWLEDGE THAT THIS AGREEMENT IS INTENDED TO BE, AND IS, AN INTEGRATED AGREEMENT.**

XXIX. SEVERABILITY

Should any part, term, condition or provision of this Agreement be declared or determined by any court of competent jurisdiction to be invalid, illegal or incapable of being enforced by any rule of law, public policy, or city charter, the validity of the remaining parts, terms, conditions or provisions of this Agreement shall not be affected thereby, and such invalid, illegal or unenforceable part, term, condition or provision shall be treated as follows: (a) if such part, term, condition or provision is immaterial to this Agreement, then such part, term, condition or provision shall be deemed not to be a part of this Agreement; or (b) if such part, term, condition or provision is material to this Agreement, then the parties shall revise the part, term, condition or provision so as to comply with the applicable law or public policy and to effect the original intent of the parties as closely as possible.

XXX. CONSTRUCTION OF AGREEMENT

This Agreement shall not be construed against the party preparing the same, shall be construed without regard to the identity of the person who drafted such and shall be construed as if all parties had jointly prepared this Agreement and it shall be deemed their joint work product; each and every provision of this Agreement shall be construed as though all of the parties hereto participated equally in the drafting hereof; and any uncertainty or ambiguity shall not be interpreted against any one party. As a result of the foregoing, any rule of construction that a document is to be construed against the drafting party shall not be applicable.

XXXI. TITLES AND CAPTIONS

The parties have inserted the Article titles in this Agreement only as a matter of convenience and for reference, and the Article titles in no way define, limit, extend or describe the scope of this Agreement or the intent of the parties in including any particular provision in this Agreement.

XXXII. MODIFICATION IN WRITING

This Agreement may be modified only by written agreement of all parties. Any such modifications are subject to all applicable approval processes required by, without limitation, City's Charter and City's Administrative Code.

XXXIII. WAIVER

A failure of any party to this Agreement to enforce the Agreement upon a breach or default shall not waive the breach or default or any other breach or default. All waivers shall be in writing.

XXXIV. EXHIBITS; ARTICLES

All exhibits to which reference is made in this Agreement are deemed incorporated in this Agreement, whether or not actually attached. To the extent the terms of an exhibit conflict with or appear to conflict with the terms of the body of the Agreement, the terms of the body of the Agreement shall control. References to Articles are to Articles of this Agreement unless stated otherwise.

XXXV. COUNTERPARTS

This Agreement may be executed in any number of counterparts, each of which shall be deemed an original and all of which shall constitute together one and the same instrument.

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IN WITNESS WHEREOF, the parties hereto have executed this Agreement on the date to the left of their signatures.

Dated: _____

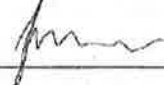
THE CITY OF LOS ANGELES, by its Board of Harbor Commissioners


By _____
EUGENE D. SEROKA
Executive Director

Attest: _____
AMBER M. KLESGES
Board Secretary

Dated: 11/7/16

PRODUCTIVITY APEX, INC.

By  _____
Mansooreh Mollaghasemi, Ph.D., CEO
(Print/type name and title)

Attest  _____
Sam Faye, Ph.D., Director
(Print/type name and title)

APPROVED AS TO FORM AND LEGALITY

_____, 2016
MICHAEL N. FEUER, City Attorney
JANNA B. SIDLEY, General Counsel

By _____
Heather M. McCloskey, Deputy

Exhibit A

CALIFORNIA ENERGY COMMISSION

DIVISION OF FINANCIAL SERVICES
GRANTS & LOANS
1516 NINTH STREET, MS-1
SACRAMENTO, CA 95814-5512
(916) 654-4381
www.energy.ca.gov



August 12, 2016

Christopher Cannon
Chief Sustainability Officer
City of Los Angeles, Harbor Department
425 S. Palos Verdes Street,
San Pedro, CA 90731

Re: GRANT AWARD NUMBER: ARV-15-069, *Port of Los Angeles Advanced Yard Tractor Deployment and ECO-FRATIS Drayage Truck Efficiency Project*

PROCEDURE FOR EXECUTING AGREEMENT

- Enclosed is one copy of the CEC 146, and one copy of the Grant documents. Please have **two** copies of the CEC 146 signed by the authorized person identified by your organization. Return both signed copies to me at the address below.
- This grant award agreement is not binding on either party until fully and properly executed by the authorized state officials. A copy of this agreement will be sent to you when it has been executed by the State.
- The Energy Commission agrees to keep this offer open for a period of 30 days from the date of this letter. Failure to execute this agreement within this 30 day period may result in forfeiture of the award.

FUND AVAILABILITY

Funds in this award have a limited period in which they must be expended. All recipient expenditures must occur prior to the end of the term of this agreement.

EFFECTIVE DATE

Effective date of this Agreement is either the start date or the approval date by the California Energy Commission, whichever is later. The California Energy Commission shall be the last party to sign. No work is authorized, nor shall any work begin, until on or after the effective date.

PROJECT ASSISTANCE

There are two offices at the Commission with staff to assist you with your grant award. Contact me at (916) 654-4921 or janna.franks@energy.ca.gov for administrative questions and the Commission Project Manager listed in Exhibit D for technical questions.

Sincerely,

Janna Franks
Commission Agreement Officer
California Energy Commission
1516 Ninth Street, MS-18
Sacramento, CA 95814

Enclosures cc: Larry Rillera, Commission Agreement Manager, MS-27; File



RECIPIENT City of Los Angeles Harbor Department	AGREEMENT NUMBER ARV-15-069
ADDRESS 425 S. Palos Verdes Street San Pedro, CA 90731	AGREEMENT TERM 6/30/2016 to 4/30/2021 The effective date of this Agreement is either the start date or the approval date by the California Energy Commission, whichever is later. The California Energy Commission shall be the last party to sign. No work is authorized, nor shall any work begin, until on or after the effective date.

PROJECT DESCRIPTION
 The parties agree to comply with the terms and conditions of the following Exhibits which are by this reference made a part of the agreement.

Exhibit A – Scope of Work	Page(s): 16
Exhibit A – Attachments	Page(s): 2
Exhibit B – Budget	Page(s): 48
Exhibit B – Attachments	Page(s): 0
Exhibit C – General Terms and Conditions	Page(s): 25
Exhibit C – Attachments	Page(s): 0
Exhibit D - Contacts	Page(s): 1

REIMBURSABLE AMOUNT \$ 5,833,000
MATCH SHARE \$ 2,856,547
TOTAL \$ 8,689,547

The undersigned parties have read the attachments to this agreement and will comply with the standards and requirements contained therein.

CALIFORNIA ENERGY COMMISSION		RECIPIENT	
AUTHORIZED SIGNATURE	DATE	AUTHORIZED SIGNATURE	DATE
NAME Rachel L. Grant Kiley		NAME	
TITLE Contracts, Grants and Loans Office Manager		TITLE	
CALIFORNIA ENERGY COMMISSION ADDRESS 1516 9th Street, MS 1, Sacramento, CA 95814			

**Exhibit A
SCOPE OF WORK**

TECHNICAL TASK LIST

Task #	CPR	Task Name
1		Administration
2	X	Design, Build, and Commission Yard Tractors
3		Plan, Design, Integrate, and Commission Intelligent Transportation Systems
4	X	Demonstration, Data Collection, and Analysis

KEY NAME LIST

Task #	Key Personnel	Key Subcontractor(s)	Key Partner(s)
1	Carter Atkins, Kerry Cartwright		
2	Carter Atkins	Steven Ramo (Capacity Trucks), Mike Zupanovich (Harbor Diesel Equipment), Andy Swanton (BYD Motors), Geoffrey Romano (Everport Terminals), Andres Carlos (Clean Energy)	
3	Kerry Cartwright,	Mansoorah Mollaghasemi (Productivity Apex, Inc.), Kanok Boriboonsomsin (UCR), Sal Manzo (Infomagnus), Bryan Pennington (METRO)	
4	Carter Atkins, Kerry Cartwright	Geoffrey Romano (Everport)	Harbor Trucking Association

GLOSSARY

Specific terms and acronyms used throughout this scope of work are defined as follows:

Term/ Acronym	Definition
ARFVTP	Alternative and Renewable Fuel and Vehicle Technology Program
BOM	Bill of Materials
CAM	Commission Agreement Manager
CPR	Critical Project Review
DAC	Disadvantaged Communities
FRATIS	Freight Advanced Traveler Information System
FTD	Fuels and Transportation Division
GHG	Greenhouse Gas
ITS	Intelligent Transportation Systems and Technologies
MHD	Medium- and Heavy-Duty Vehicle
NG	Natural Gas
POLA/POLB	Port of Los Angeles and Port of Long Beach
Recipient	City of Los Angeles Harbor Department

BACKGROUND

Assembly Bill (AB) 118 (Núñez, Chapter 750, Statutes of 2007), created the Alternative and Renewable Fuel and Vehicle Technology Program (ARFVTP). The statute authorizes the California Energy Commission (Energy Commission) to develop and deploy alternative and renewable fuels and advanced transportation technologies to help attain the state's climate change, clean air, and alternative energy policies. AB 8 (Perea, Chapter 401, Statutes of 2013) re-authorizes the ARFVTP through January 1, 2024. The ARFVTP has an annual budget of approximately \$100 million and provides financial support for projects that:

- Reduce California's use and dependence on petroleum transportation fuels and increase the use of alternative and renewable fuels and advanced vehicle technologies.
- Produce sustainable alternative and renewable low-carbon fuels in California.
- Expand alternative fueling infrastructure and fueling stations.
- Improve the efficiency, performance and market viability of alternative light-, medium-, and heavy-duty vehicle technologies.

- Retrofit medium- and heavy-duty on-road and non-road vehicle fleets to alternative technologies or fuel use.
- Expand the alternative fueling infrastructure available to existing fleets, public transit, and transportation corridors.
- Establish workforce training programs and conduct public outreach on the benefits of alternative transportation fuels and vehicle technologies.

The Energy Commission issued Solicitation GFO-15-604 entitled "Freight Transportation Projects at California Seaports" under the ARFVTP on January 6, 2016. This competitive grant solicitation was an offer to cost share the development of medium-and heavy-duty (MHD) advanced vehicle technology demonstrations, intelligent transportation system (ITS) demonstrations, and natural gas vehicle (NGV) deployments. To be eligible for funding under GFO-15-604, the projects must also be consistent with the Energy Commission's ARFVTP Investment Plan as updated annually. In response to GFO-15-604, the Recipient submitted Application #03 which was proposed for funding in the Energy Commission's Notice of Proposed Awards on May 19, 2016. GFO-15-604 and Recipient's Application are hereby incorporated by reference into this Agreement in their entirety.

In the event of any conflict or inconsistency between the terms of the Solicitation and the terms of the Recipient's Application, the Solicitation shall control. In the event of any conflict or inconsistency between the Recipient's Application and the terms of the Energy Commission's Award, the Energy Commission's Award shall control. Similarly, in the event of any conflict or inconsistency between the terms of this Agreement and the Recipient's Application, the terms of this Agreement shall control.

Problem Statement

The Port of Los Angeles (POLA) experiences high greenhouse gas (GHG) and criteria pollutant emissions from on- and off-road vehicles that operate in and around the port. In addition to the use of conventional diesel-fueled internal combustion engines in MHD vehicles and equipment that move goods, the increasing volume of goods moving through the Port, the emergence of larger ships, and the evolving supply chain management practices of end-customers have increased the demands and pressure placed on the port complex. Congestion has a significant negative impact on the local and the broader economy, as it leads to lost revenue for the companies importing or exporting goods and increased shipping costs to offset the inefficiencies. Local communities suffer as commuter traffic conditions are negatively impacted by freight congestion, air quality is degraded by emissions from idling vehicles, or those equipped with conventional propulsion systems, and safety is compromised by increasingly congested roads.

Goals of the Agreement

The goals of this agreement are to enhance market acceptance of advanced vehicle and information technology in yard tractor and drayage truck applications that will reduce greenhouse gas emissions, reduce petroleum use, improve energy cost savings, and benefit disadvantaged communities (DAC).

Objectives of the Agreement

The objectives of this agreement are to:

- Design and build a minimum of 25 vehicles for field demonstration, to verify the performance, and to collect performance data.
- Design, build, and deploy integrated intelligent transportation systems and technologies (ITS) for field demonstration, to increase truck driver productivity, and to collect performance data.
- Displace petroleum fuel, reduce GHG emissions, and support jobs in the port area and in disadvantaged communities.

TASK 1 ADMINISTRATION

Task 1.1 Attend Kick-off Meeting

The goal of this task is to establish the lines of communication and procedures for implementing this Agreement. The Commission Agreement Manager (CAM) shall designate the date and location of this meeting and provide an agenda to the Recipient prior to the meeting.

The Recipient shall:

- Attend a "Kick-Off" meeting with the CAM, the Commission Agreement Officer (CAO), and a representative of the Energy Commission Accounting Office. The Recipient shall bring their Project Manager, Agreement Administrator, Accounting Officer, and any others determined necessary by the Recipient or specifically requested by the CAM to this meeting.
- Discuss the following administrative and technical aspects of this Agreement:
 - Agreement Terms and Conditions
 - Critical Project Review (Task 1.2)
 - Match fund documentation (Task 1.6). No reimbursable work may be done until this documentation is in place.
 - Permit documentation (Task 1.7)
 - Subcontracts needed to carry out project (Task 1.8)
 - The CAM's expectations for accomplishing tasks described in the Scope of Work
 - An updated Schedule of Products and Due Dates
 - Monthly Progress Reports (Task 1.4)

- Technical Products (Product Guidelines located in Section 5 of the Terms and Conditions)
- Final Report (Task 1.5)

Recipient Products:

- Updated Schedule of Products
- Updated List of Match Funds
- Updated List of Permits

Commission Agreement Manager Product:

- Kick-Off Meeting Agenda

Task 1.2 Critical Project Review (CPR) Meetings

CPRs provide the opportunity for frank discussions between the Energy Commission and the Recipient. The goal of this task is to determine if the project should continue to receive Energy Commission funding to complete this Agreement and to identify any needed modifications to the tasks, products, schedule or budget.

The CAM may schedule CPR meetings as necessary, and meeting costs will be borne by the Recipient.

Meeting participants include the CAM and the Recipient and may include the Commission Agreement Officer, the Fuels and Transportation Division (FTD) program lead, other Energy Commission staff and Management as well as other individuals selected by the CAM to provide support to the Energy Commission.

The CAM shall:

- Determine the location, date, and time of each CPR meeting with the Recipient. These meetings generally take place at the Energy Commission, but they may take place at another location.
- Send the Recipient the agenda and a list of expected participants in advance of each CPR. If applicable, the agenda shall include a discussion on both match funding and permits.
- Conduct and make a record of each CPR meeting. Prepare a schedule for providing the written determination described below.
- Determine whether to continue the project, and if continuing, whether or not modifications are needed to the tasks, schedule, products, and/or budget for the remainder of the Agreement. Modifications to the Agreement may require a formal amendment (please see section 8 of the Terms and Conditions). If the CAM concludes that satisfactory progress is not being made, this conclusion will be referred to the Lead Commissioner for Transportation for his or her concurrence.

- Provide the Recipient with a written determination in accordance with the schedule. The written response may include a requirement for the Recipient to revise one or more product(s) that were included in the CPR.

The Recipient shall:

- Prepare a CPR Report for each CPR that discusses the progress of the Agreement toward achieving its goals and objectives. This report shall include recommendations and conclusions regarding continued work of the projects. This report shall be submitted along with any other products identified in this scope of work. The Recipient shall submit these documents to the CAM and any other designated reviewers at least 15 working days in advance of each CPR meeting.
- Present the required information at each CPR meeting and participate in a discussion about the Agreement.

CAM Products:

- Agenda and a list of expected participants
- Schedule for written determination
- Written determination

Recipient Product:

- CPR Report(s)

Task 1.3 Final Meeting

The goal of this task is to closeout this Agreement.

The Recipient shall:

- Meet with Energy Commission staff to present the findings, conclusions, and recommendations. The final meeting must be completed during the closeout of this Agreement.

This meeting will be attended by, at a minimum, the Recipient, the Commission Grants Office Officer, and the Commission Agreement Manager. The technical and administrative aspects of Agreement closeout will be discussed at the meeting, which may be two separate meetings at the discretion of the Commission Agreement Manager.

The technical portion of the meeting shall present an assessment of the degree to which project and task goals and objectives were achieved, findings, conclusions, recommended next steps (if any) for the Agreement, and recommendations for improvements. The Commission Agreement Manager will determine the appropriate meeting participants.

The administrative portion of the meeting shall be a discussion with the Commission Agreement Manager and the Grants Officer about the following Agreement closeout items:

- What to do with any equipment purchased with Energy Commission funds (Options)
- Energy Commission's request for specific "generated" data (not already provided in Agreement products)
- Need to document Recipient's disclosure of "subject inventions" developed under the Agreement
- "Surviving" Agreement provisions
- Final invoicing and release of retention
- Prepare a schedule for completing the closeout activities for this Agreement.

Products:

- Written documentation of meeting agreements
- Schedule for completing closeout activities

Task 1.4 Monthly Progress Reports

The goal of this task is to periodically verify that satisfactory and continued progress is made towards achieving the objectives of this Agreement on time and within budget.

The objectives of this task are to summarize activities performed during the reporting period, to identify activities planned for the next reporting period, to identify issues that may affect performance and expenditures, and to form the basis for determining whether invoices are consistent with work performed.

The Recipient shall:

- Prepare a Monthly Progress Report which summarizes all Agreement activities conducted by the Recipient for the reporting period, including an assessment of the ability to complete the Agreement within the current budget and any anticipated cost overruns. Each progress report is due to the Commission Agreement Manager within 10 days of the end of the reporting period. The recommended specifications for each progress report are contained in Section 6 of the Terms and Conditions of this Agreement.

- In the first Monthly Progress Report and first invoice, document and verify match expenditures and provide a synopsis of project progress, if match funds have been expended or if work funded with match share has occurred after the notice of proposed award but before execution of the grant agreement. If no match funds have been expended or if no work funded with match share has occurred before execution, then state this in the report. All pre-execution match expenditures must conform to the requirements in the Terms and Conditions of this Agreement.

Product:

- Monthly Progress Reports

Task 1.5 Final Report

The goal of the Final Report is to assess the project's success in achieving the Agreement's goals and objectives, advancing science and technology, and providing energy-related and other benefits to California.

The objectives of the Final Report are to clearly and completely describe the project's purpose, approach, activities performed, results, and advancements in science and technology; to present a public assessment of the success of the project as measured by the degree to which goals and objectives were achieved; to make insightful observations based on results obtained; to draw conclusions; and to make recommendations for further projects and improvements to the FTD project management processes.

The Final Report shall be a public document. If the Recipient has obtained confidential status from the Energy Commission and will be preparing a confidential version of the Final Report as well, the Recipient shall perform the following activities for both the public and confidential versions of the Final Report.

The Recipient shall:

- Prepare an Outline of the Final Report, if requested by the CAM.
- Prepare a Final Report following the latest version of the Final Report guidelines which will be provided by the CAM. The CAM shall provide written comments on the Draft Final Report within fifteen (15) working days of receipt. The Final Report must be completed at least 60 days before the end of the Agreement Term.
- Submit one bound copy of the Final Report with the final invoice.

Products:

- Outline of the Final Report, if requested
- Draft Final Report
- Final Report

Task 1.6 Identify and Obtain Matching Funds

The goal of this task is to ensure that the match funds planned for this Agreement are obtained for and applied to this Agreement during the term of this Agreement.

The costs to obtain and document match fund commitments are not reimbursable through this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient may utilize match funds for this task. Match funds shall be spent concurrently or in advance of Energy Commission funds for each task during the term of this Agreement. Match funds must be identified in writing and the associated commitments obtained before the Recipient can incur any costs for which the Recipient will request reimbursement.

The Recipient shall:

- Prepare a letter documenting the match funding committed to this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If no match funds were part of the proposal that led to the Energy Commission awarding this Agreement and none have been identified at the time this Agreement starts, then state such in the letter. If match funds were a part of the proposal that led to the Energy Commission awarding this Agreement, then provide in the letter a list of the match funds that identifies the:
 - Amount of each cash match fund, its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied.
 - Amount of each in-kind contribution, a description, documented market or book value, and its source, including a contact name, address and telephone number and the task(s) to which the match funds will be applied. If the in-kind contribution is equipment or other tangible or real property, the Recipient shall identify its owner and provide a contact name, address and telephone number, and the address where the property is located.
- Provide a copy of the letter of commitment from an authorized representative of each source of cash match funding or in-kind contributions that these funds or contributions have been secured. For match funds provided by a grant a copy of the executed grant shall be submitted in place of a letter of commitment.
- Discuss match funds and the implications to the Agreement if they are reduced or not obtained as committed, at the kick-off meeting. If applicable, match funds will be included as a line item in the progress reports and will be a topic at CPR meetings.

- Provide the appropriate information to the Commission Agreement Manager if during the course of the Agreement additional match funds are received.
- Notify the Commission Agreement Manager within 10 days if during the course of the Agreement existing match funds are reduced. Reduction in match funds must be approved through a formal amendment to the Agreement and may trigger an additional CPR meeting.

Products:

- A letter regarding match funds or stating that no match funds are provided
- Copy(ies) of each match fund commitment letter(s) (if applicable)
- Letter(s) for new match funds (if applicable)
- Letter that match funds were reduced (if applicable)

Task 1.7 Identify and Obtain Required Permits

The goal of this task is to obtain all permits required for work completed under this Agreement in advance of the date they are needed to keep the Agreement schedule on track.

Permit costs and the expenses associated with obtaining permits are not reimbursable under this Agreement. Although the Energy Commission budget for this task will be zero dollars, the Recipient shall budget match funds for any expected expenditures associated with obtaining permits. Permits must be identified in writing and obtained before the Recipient can make any expenditure for which a permit is required.

The Recipient shall:

- Prepare a letter documenting the permits required to conduct this Agreement and submit it to the Commission Agreement Manager at least 2 working days prior to the kick-off meeting. If there are no permits required at the start of this Agreement, then state such in the letter. If it is known at the beginning of the Agreement that permits will be required during the course of the Agreement, provide in the letter:
 - A list of the permits that identifies the:
 - Type of permit
 - Name, address and telephone number of the permitting jurisdictions or lead agencies
 - The schedule the Recipient will follow in applying for and obtaining these permits.

- Discuss the list of permits and the schedule for obtaining them at the kick-off meeting and develop a timetable for submitting the updated list, schedule and the copies of the permits. The implications to the Agreement if the permits are not obtained in a timely fashion or are denied will also be discussed. If applicable, permits will be included as a line item in the Progress Reports and will be a topic at CPR meetings.
- If during the course of the Agreement additional permits become necessary, provide the appropriate information on each permit and an updated schedule to the Commission Agreement Manager.
- As permits are obtained, send a copy of each approved permit to the Commission Agreement Manager.
- If during the course of the Agreement permits are not obtained on time or are denied, notify the Commission Agreement Manager within 5 working days. Either of these events may trigger an additional CPR.

Products:

- Letter documenting the permits or stating that no permits are required
- A copy of each approved permit (if applicable)
- Updated list of permits as they change during the term of the Agreement (if applicable)
- Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)
- A copy of each final approved permit (if applicable)

Task 1.8 Obtain and Execute Subcontracts

The goal of this task is to ensure quality products and to procure subcontractors required to carry out the tasks under this Agreement consistent with the Agreement Terms and Conditions and the Recipient's own procurement policies and procedures. It will also provide the Energy Commission an opportunity to review the subcontracts to ensure that the tasks are consistent with this Agreement, and that the budgeted expenditures are reasonable and consistent with applicable cost principles.

The Recipient shall:

- Manage and coordinate subcontractor activities.
- Submit a draft of each subcontract required to conduct the work under this Agreement to the Commission Agreement Manager for review.
- Submit a final copy of the executed subcontract.
- If Recipient decides to add new subcontractors, then the Recipient shall notify the CAM.

Products:

- Letter describing the subcontracts needed, or stating that no subcontracts are required.
- Draft subcontracts
- Final subcontracts

TECHNICAL TASKS

TASK 2 DESIGN, BUILD, AND COMMISSION YARD TRACTORS

The goal of this task is to plan, design, build and commission a minimum of 20 yard tractors with low-NOx emission engines and a minimum of 5 yard tractors with battery-electric propulsion technologies.

The Recipient shall:

- Review vehicle build specifications and functional requirements.
- Finalize Bill of Materials (BOMs) and order components for each vehicle.
- Design, fabricate, and build vehicle, components, systems, and subsystems.
- Provide skid mounted mobile NG tanks to refuel vehicles.
- Conduct tests, certifications, quality checks, and validations for vehicle, components, systems, subsystems, and safety elements.
- Conduct drivability testing, visual quality assurance, final road test, and pre-delivery test.
- Obtain sign-off authorization to release truck, commission the demonstration vehicles, and deliver vehicles to the demonstrator.
- Prepare and submit a Truck Summary Report with Photographs that contains, at a minimum, the information listed above for each demonstration vehicle.

Products:

- Truck Summary Report with Photographs

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

TASK 3 PLAN, DESIGN, INTEGRATE, AND COMMISSION ITS

The goals of this task are to plan, design, integrate, and commission the Freight Advanced Traveler Information System (FRATIS), ECO-Drive, and GEOSTAMP suite of ITS applications.

The Recipient shall:

- Identify, plan, map processes and protocols, and secure participants for demonstration, provide a list of participants, and identify the number of trucks participating by company.
- Customize and integrate the FRATIS application. The Recipient shall also design and integrate FRATIS back-office application, subsystems, software, hardware, communication technologies, and infrastructure.
- Test and validate the FRATIS application.
- Identify and list each demonstration site and list of equipment upgrades needed at each site.
- Upgrade traffic signal controllers at the demonstration sites and create a place for receiving, storing, and disseminating traffic signal phase and timing information.
- Design, develop, test, validate, and integrate the ECO-Drive application and GEOSTAMP engine.
- Provide a technical memorandum on:
 - Traffic signal controller upgrade, traffic signal phase and timing information.
 - ECO-Drive algorithms, application design, software architecture, testing of the Eco-Drive mobile application, and test results.
 - GEOSTAMP information on integration solution, integration platform for applications, security system to process request, and turn time data.
- Procure 70 Android tablets, cellular service, and truck navigation with traffic service for truck deployment and install the driver mobile application and all the other supporting applications.
- Prepare and submit ITS Test Plan.
- Prepare and submit ITS Summary Report with Photographs that contains, at a minimum, the information listed above.

Products:

- ITS Test Plan
- ITS Summary Report with Photographs

TASK 4 DEMONSTRATION, DATA COLLECTION, AND ANALYSIS

The goal of this task is to collect operational data from the MHD project, to analyze those data for economic and environmental impacts, and to include resultant data and analysis in the Final Report.

The Recipient shall:

- Develop a data collection test plan that outlines the frequency and project specific metrics to be collected. The test plan shall be reviewed by the CAM and comments provided prior to vehicle demonstration.
- Provide training and support to demonstrators, maintenance and operations staff, data collectors, and key project participants.
- Demonstrate project vehicles.
- Develop data collection test plan including baseline pre-deployment and post-deployment data.
- Provide data for baseline vehicles for each power train/fuel type that will be demonstrated. The Recipient shall include, at a minimum, the following data:
 - Vehicle type, class (e.g. 3-8), powertrain type, and fuel type.
 - Typical duty cycle, vehicle mile traveled (VMT), hours of operation.
 - Maximum capacity of on-vehicle fuel/energy storage system, rated power of the powertrain.
 - Frequency of refueling/recharging events.
 - Fuel economy and fuel/energy usage.
 - Emissions, including but not limited to:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
 - Total carbon dioxide equivalent emission
- Collect 12 months of throughput, usage, and operations data from the project including, but not limited to:
 - Vehicle type, class (e.g. 3-8), powertrain type, fuel type
 - Typical duty cycle, VMT, hour of operation
 - Maximum capacity of natural gas fuel tank/battery pack, rated power low NOx engine/electric motor

- Fuel consumption, fuel/energy usage (average data throughout demonstration period)
- Utilization of electric vehicle charging system and the natural gas fueling, including but not limited to frequency of refueling/recharging events
- Provide a quantified step-by-step calculation of petroleum usage reduction and GHG emission reduction
- Expected air emissions reduction, for example:
 - Non-methane hydrocarbons
 - Oxides of nitrogen
 - Non-methane hydrocarbons plus oxides of nitrogen
 - Particulate Matter
 - Formaldehyde
 - Total carbon dioxide equivalent emission
- Specific jobs and economic development resulting from this project
- Identify any current and planned use of renewable energy at the facility.
- Identify the source of the electric power and NG in refueling.
- Describe any energy efficiency measures used in the facility that may exceed Title 24 standards in Part 6 of the California Code of Regulations.
- Provide data on potential job creation, economic development, and increased state revenue as a result of expected future expansion.
- Provide a quantified estimate of the project's carbon intensity values for life-cycle GHG emissions.
- Provide quantified cost difference between the demonstration vehicles and baseline vehicles, and quantified step-by-step calculation of the payback period.
- Provide quantified step-by-step calculations of the benefit/costs compared to the original proposal.
- For ITS demonstration, collect 12 months of throughput, usage, and operations data from the project including, but not limited to:
 - Operation log, including but not limited to:
 - Total execution time per truck
 - Total waiting time per truck
 - Turn time per truck
 - Total vehicle utilization time

- Total vehicle utilization time reduction.
- Operational cost improvement
- Total miles reduction, unproductive miles reduction
- Fuel consumption reduction
- Emission reduction
- Compare any project performance and expectations provided in the proposal to Energy Commission with actual project performance and accomplishments.
- Collect data, information, and analysis described above and include in the Final Report.

Products:

- Data collection information and analysis will be included in the Final Report (See Task 1.5)

[CPR WILL BE HELD IN THIS TASK. See Task 1.2 for details]

Exhibit A-1

Schedule of Products and Due Dates

Task Number	Task Name	Product(s)	Due Date
1.1	Attend Kick-off Meeting	Updated Schedule of Products	1/6/2017
		Updated List of Match Funds	1/6/2017
		Updated List of Permits	1/6/2017
		Kick-Off Meeting Agenda (CEC)	1/6/2017
1.2	Critical Project Review Meetings	Agenda and List of Expected Participants	7/11/2017
		1st CPR Meeting	7/11/2017
		Schedule for Written Determination	7/11/2017
		CPR Report(s)	7/11/2017
1.3	Final Meeting	Written determination (CEC)	7/11/2017
		Written documentation of meeting agreements	12/9/2019
1.4	Monthly Progress Reports	Schedule for completing closeout activities	12/9/2019
		Monthly Progress Reports	The 10th calendar day of each month during the approved term of this Agreement
1.5	Final Report	Final Outline of the Final Report	8/23/2019
		Draft Final Report (no less than 60 days before the end term of the agreement)	9/5/2019
		Final Report	11/6/2019
1.6	Identify and Obtain Match Funds	A letter regarding match funds or stating that no match funds are provided	2/6/2017
		Copy(ies) of each match fund commitment letter(s) (if applicable)	2/6/2017
		Letter(s) for new match funds (if applicable)	Within 10 days of identifying new match funds
		Letter that match funds were reduced (if applicable)	Within 10 days of identifying reduced funds
1.7	Identify and Obtain Required Permits	Letter documenting the permits or stating that no permits are required	5/9/2017
		A copy of each approved permit (if applicable)	Within 10 days of receiving each permit
		Updated list of permits as they change during the term of the Agreement (if applicable)	Within 10 days of change in list of permits
		Updated schedule for acquiring permits as changes occur during the term of the Agreement (if applicable)	Within 10 days of change in schedule for obtaining permits
		A copy of each final approved permit (if applicable)	Within 10 days of change in schedule for obtaining permits
1.8	Obtain and Execute Subcontracts	Letter describing the subcontracts needed, or stating that no subcontracts are required	3/9/2017
		Draft subcontracts	15 days prior to the scheduled execution date
		Final subcontracts	Within 10 days of execution
2	DESIGN, BUILD, AND COMMISSION YARD TRACTORS	Truck Summary Report with Photographs	7/23/2018
3	PLAN, DESIGN, INTEGRATE, AND COMMISSION ITS	ITS Task Management	1/2/2017-5/30/2019
		FRATIS Module PLANNING, DESIGN, AND INTEGRATION	
		ECO-Drive PLANNING, DESIGN, AND DEVELOPMENT	
		GeoStamp Module PLANNING, DESIGN, AND INTEGRATION	
		ECO-FRATIS Integrated Application	
		DEMONSTRATION, DEPLOYMENT, DATA COLLECTION, AND ANALYSIS	
4	DEMONSTRATION, DATA COLLECTION, AND ANALYSIS	Data collection information and analysis will be provided in the final report (Task 1.5)	11/6/2019

Exhibit B

Category Budget

City of Los Angeles Harbor Department

Name of Organization

- Contractor/Recipient Subcontractor
 Small Micro Business Disabled Veteran Business Enterprise

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ -	\$ -	\$ -
Fringe Benefits	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -
Equipment	\$ -	\$ -	\$ -
Materials/Miscellaneous	\$ -	\$ -	\$ -
Subcontractors	\$ 5,833,000	\$ 2,808,007	\$ 8,641,007
Total Other Direct Costs	\$ 5,833,000	\$ 2,808,007	\$ 8,641,007
Indirect Costs	\$ -	\$ -	\$ -
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ -	\$ -	\$ -
Grand Totals	\$ 5,833,000	\$ 2,808,007	\$ 8,641,007

Direct Labor (Unloaded)

City of Los Angeles Harbor Department

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -

				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ -	\$ -	\$ -

Fringe Benefits

City of Los Angeles Harbor Department

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
-	-	\$ -	\$ -	\$ -	\$ -
Fringe Benefit Totals		\$ -	\$ -	\$ -	\$ -

Travel

City of Los Angeles Harbor Department

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
-	-	-	-	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

City of Los Angeles Harbor Department

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
-	-	-	-	\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Materials & Miscellaneous

City of Los Angeles Harbor Department

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
-	-	-	-	\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Subcontracts

City of Los Angeles Harbor Department

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
2, 4	Capacity Trucks	To build and demonstrate yard tractors		\$ 3,363,000	\$ 1,999,000	\$ 5,362,000
2, 4	BYD Motors, Inc.	To build and demonstrate yard tractors		\$ 1,500,000	\$ 375,000	\$ 1,875,000
3, 4	Productivity Apex, Inc.	To design, build, integrate, and demonstrate intelligent transportation system	SB	\$ 513,998	\$ 306,241	\$ 820,239
3, 4	University of California at Riverside	To design, build, integrate, and demonstrate intelligent transportation system		\$ 359,855	\$ 90,138	\$ 449,993
3, 4	InfoMagnus	To design, build, integrate, and demonstrate intelligent transportation system	SB	\$ 96,147	\$ 37,628	\$ 133,775
Total:				\$ 5,833,000	\$ 2,808,007	\$ 8,641,007

Indirect Costs and Profit

City of Los Angeles Harbor Department

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
-	-	-	\$ -	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
-	-	\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget

Capacity Trucks

Name of Organization _____

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ -	\$ -	\$ -
Fringe Benefits	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -
Equipment	\$ 3,363,000	\$ 499,000	\$ 3,862,000
Materials/Miscellaneous	\$ -	\$ 1,500,000	\$ 1,500,000
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 3,363,000	\$ 1,999,000	\$ 5,362,000
Indirect Costs	\$ -	\$ -	\$ -
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ -	\$ -	\$ -
Grand Totals	\$ 3,363,000	\$ 1,999,000	\$ 5,362,000

Direct Labor (Unloaded)

Capacity Trucks

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
-	-	\$ -	-	\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -
				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ -	\$ -	\$ -

Fringe Benefits

Capacity Trucks

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Fringe Benefit Totals		\$ -	\$ -	\$ -	\$ -

Travel

Capacity Trucks

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

Capacity Trucks

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
2	Off-Road Natural Gas Yard Tractors	To provide yard tractors for field demonstration	20	\$ 168,150	\$ 3,363,000	\$ -	\$ 3,363,000
2	Natural Gas Fuel and Refueling Station	To provide skid mounted refueling tanks to support demonstration	1	\$ 499,000	\$ -	\$ 499,000	\$ 499,000
Total:					\$ 3,363,000	\$ 499,000	\$ 3,862,000

Materials & Miscellaneous

Capacity Trucks

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
4	Natural Gas Yard Tractor	To support operations and maintenance, service needs, and demonstration activities	Variable	Variable	\$ -	\$ 1,500,000	\$ 1,500,000
Total:					\$ -	\$ 1,500,000	\$ 1,500,000

Subcontracts

Capacity Trucks

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

Capacity Trucks

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
			\$ -	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget

BYD Motors, Inc.

Name of Organization

- Contractor/Recipient
 Subcontractor
 Small Business
 Micro Business
 Disabled Veteran Business Enterprise

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ -	\$ -	\$ -
Fringe Benefits	\$ -	\$ -	\$ -
Total Labor	\$ -	\$ -	\$ -
Travel	\$ -	\$ -	\$ -
Equipment	\$ 1,500,000	\$ -	\$ 1,500,000
Materials/Miscellaneous	\$ -	\$ 375,000	\$ 375,000
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 1,500,000	\$ 375,000	\$ 1,875,000
Indirect Costs	\$ -	\$ -	\$ -
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ -	\$ -	\$ -
Grand Totals	\$ 1,500,000	\$ 375,000	\$ 1,875,000

Direct Labor (Unloaded)

BYD Motors, Inc.

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
		\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
		\$ -	-	\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -

				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ -	\$ -	\$ -

Fringe Benefits

BYD Motors, Inc.

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Fringe Benefit Totals		\$ -	\$ -	\$ -	\$ -

Travel

BYD Motors, Inc.

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

BYD Motors, Inc.

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
2	Battery Powered Yard Tractors	To design build, and demonstrate yard tractors	5	\$ 300,000	\$ 1,500,000	\$ -	\$ 1,500,000
Total:					\$ 1,500,000	\$ -	\$ 1,500,000

Materials & Miscellaneous

BYD Motors, Inc.

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
4	Battery Yard Tractor Demonstration	To support operations and maintenance, service needs, and demonstration activities	Various	Various	\$ -	\$ 375,000	\$ 375,000
Total:					\$ -	\$ 375,000	\$ 375,000

Subcontracts

BYD Motors, Inc.

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

BYD Motors, Inc.

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
			\$ -	\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget
(see instructions)

Name of Organization

Productivity Apex, Inc.

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise (DVBE)

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ 171,334	\$ 125,494	\$ 296,828
Fringe Benefits	\$ 29,551	\$ 24,835	\$ 54,387
Total Labor	\$ 200,886	\$ 150,329	\$ 351,215
Travel	\$ -	\$ -	\$ -
Equipment	\$ 70,000	\$ 12,000	\$ 82,000
Materials/Miscellaneous	\$ -	\$ -	\$ -
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 70,000	\$ 12,000	\$ 82,000
Indirect Costs	\$ 187,352	\$ 157,452	\$ 344,804
Profit (not allowed for grant recipients)	\$ 55,760	\$ -	\$ 55,760
Total Indirect and Profit	\$ 243,112	\$ 157,452	\$ 400,564
Grand Totals	\$ 513,998	\$ 319,781	\$ 833,779

Direct Labor (Unloaded)
(see instructions)

Productivity Apex, Inc.

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
Dr. Mansooreh Mollaghasemi	Task 4. Program Manager	\$ 90.00	520	\$ -	\$ 46,800.00	\$ 46,800
Dr. Sam Fayez	Task 4. Project Manager	\$ 62.50	808	\$ -	\$ 50,408	\$ 50,408
Dr. Ahmed ElNashar	Task 4. Scientist	\$ 38.00	1,027	\$ 9,934.00	\$ 28,286	\$ 38,220
Fabio Zavagnini	Task 4. Industrial Engineer	\$ 33.30	1,200	\$ 61,969.00	\$ -	\$ 61,969
Surya Suluh	Task 4. Software Engineer	\$ 45.66	2,000	\$ 91,320.00	\$ -	\$ 91,320
Natalie Fernandez	Task 4. Administration	\$ 21.63	375	\$ 8,111.25	\$ -	\$ 8,111
Hourly Direct Labor Totals				\$ 171,334	\$ 125,494	\$ 296,828

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
		\$ -		\$ -	\$ -	\$ -
Monthly Direct Labor Totals				\$ -	\$ -	\$ -
				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ 149,325	\$ 125,494	\$ 274,819

Travel
(see instructions)

Productivity Apex, Inc.

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Materials & Miscellaneous

(see instructions)

Productivity Apex, Inc.

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Subcontracts

(see instructions)

Productivity Apex, Inc.

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

(see instructions)

Productivity Apex, Inc.

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
Overhead	22.73%	Direct labor plus fringe	\$ 329,206	\$ 40,659	\$ 34,170	\$ 74,829
General & Administrative (G&A)	66.82%	Value-added method (Labor, fringe, overhead)	\$ 404,034	\$ 146,694	\$ 123,282	\$ 269,976
	0.00%		\$ -	\$ -	\$ -	\$ -
	0.00%		\$ -	\$ -	\$ -	\$ -
	0.00%		\$ -	\$ -	\$ -	\$ -
Total:				\$ 187,352	\$ 157,452	\$ 344,804

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
10.00%	Total costs	\$ 557,600	\$ 55,760	\$ -	\$ 55,760
Total:			\$ 55,760	\$ -	\$ 55,760

\$ 513,998 \$ 319,781 \$ 833,779

Category Budget

University of California at Riverside

Name of Organization

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise (DVBE)

Cost Category	Energy Commission Reimbursable Share	Match Share	Total
Direct Labor	\$ 138,995	\$ 36,000	\$ 174,995
Fringe Benefits	\$ 65,712	\$ -	\$ 65,712
Total Labor	\$ 204,707	\$ 36,000	\$ 240,707
Travel	\$ 3,600	\$ -	\$ 3,600
Equipment	\$ -	\$ -	\$ -
Materials/Miscellaneous	\$ 91,971	\$ 44,778	\$ 136,749
Subcontractors	\$ -	\$ -	\$ -
Total Other Direct Costs	\$ 95,571	\$ 44,778	\$ 140,349
Indirect Costs	\$ 59,577	\$ 9,360	\$ 68,937
Profit (not allowed for grant recipients)	\$ -	\$ -	\$ -
Total Indirect and Profit	\$ 59,577	\$ 9,360	\$ 68,937
Grand Totals	\$ 359,855	\$ 90,138	\$ 449,993

Direct Labor (Unloaded)

University of California at Riverside

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Total
		\$ -	-	\$ -	\$ -	\$ -
Hourly Direct Labor Totals				\$ -	\$ -	\$ -

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Total
Kanok Boiboonsomsin	Principal Investigator	\$ 10,759	24	\$ 39,328	\$ -	\$ 39,328
Matthew Barth	Co-Principal Investigator	\$ 17,953	6	\$ 4,255	\$ -	\$ 4,255
Peng Hao	Assistant Research Engineer	\$ 7,983	24	\$ 47,202	\$ -	\$ 47,202
Alexander Vu	Assistant Development Engineer	\$ 5,075	24	\$ 36,183	\$ -	\$ 36,183
Daniel Sandez	Junior Development Engineer	\$ 4,009	12	\$ 12,027	\$ -	\$ 12,027
TBD	Graduate Student Researcher	\$ 4,354	24	\$ -	\$ 36,000	\$ 36,000
Monthly Direct Labor Totals				\$ 138,995	\$ 36,000	\$ 174,995
				Energy Commission Funds	Match Share	Total
Direct Labor Grand Totals				\$ 138,995	\$ 36,000	\$ 174,995

Fringe Benefits

University of California at Riverside

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Total
Kanok Boriboonsomsin	60.00%	\$ 39,328	\$ 18,091	\$ -	\$ 18,091
Matt Barth	60.00%	\$ 4,255	\$ 383	\$ -	\$ 383
Peng Hao	60.00%	\$ 47,202	\$ 22,717	\$ -	\$ 22,717
Alex Vu	60.00%	\$ 36,183	\$ 18,157	\$ -	\$ 18,157
Daniel Sandez	60.00%	\$ 12,027	\$ 6,364	\$ -	\$ 6,364
Fringe Benefit Totals		\$ 138,995	\$ 65,712	\$ -	\$ 65,712

Travel

University of California at Riverside

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
3, 4	Principal Investigator and/or Co-Principal Investigator	Riverside to/from Sacramento	3 trips to Sacramento for project meetings	\$ 1,500	\$ -	\$ 1,500
3, 4	TBD/Development Engineers	Riverside to/from Various Ports and Demonstrators	20 trips to the ports and participating demonstrators for ITS installation, training, and troubleshooting	\$ 1,500	\$ -	\$ 1,500
3, 4	TBD/Development Engineers	Riverside to/from Los Angeles	10 trips to LA Metro and intersections for system installation	\$ 600	\$ -	\$ 600
Total:				\$ 3,600	\$ -	\$ 3,600

Equipment

University of California at Riverside

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Materials & Miscellaneous

University of California at Riverside

Task No.	Description	Purpose	# Units	Unit Cost*	Energy Commission Funds	Match Share	Total
4	Graduate Student Health Insurance Plan	Graduate Student researchers	6	\$ 5,303	\$ -	\$ 31,818	\$ 31,818
4	Communication devices and cables	Intersection instrumentation	10	\$ 500	\$ 5,000	\$ -	\$ 5,000
4	On-board computing devices	Vehicle instrumentation	10	\$ 1,000	\$ 10,000	\$ -	\$ 10,000
4	Radar unit	Vehicle instrumentation	10	\$ 1,000	\$ 10,000	\$ -	\$ 10,000
4	Miscellaneous	Intersection/vehicle instrumentation	Varies	Varies	\$ 5,000	\$ -	\$ 5,000
4	Tablets	Vehicle instrumentation	30	\$ 120	\$ -	\$ 3,600	\$ 3,600
4	26% of Modified total direct costs (Less equip, subs, and other items that do not include OH charges)	Facilities Rental	1	\$ 238,318	\$ 61,971	\$ 9,360	\$ 71,331
Total:					\$ 91,971	\$ 44,778	\$ 136,749

* Note: Detailed costs for each item shall be provided and approved by CAM before incurring expenses.

Subcontracts

University of California at Riverside

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

University of California at Riverside

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Total
Modified Total Direct Cost	25.00%	Modified Direct Labor	\$ 238,307	\$ 59,577	\$ 9,360	\$ 68,937
Total:				\$ 59,577	\$ 9,360	\$ 68,937

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
		\$ -	\$ -	\$ -	\$ -
Total:			\$ -	\$ -	\$ -

Category Budget

InfoMagnus

Name of Organization

- Contractor/Recipient Subcontractor
 Small Business Micro Business Disabled Veteran Business Enterprise (DVBE)

Cost Category	Energy Commission Reimbursable Share	Match Share	Metro Match	Total
Direct Labor	\$ 58,966	\$ 25,385	\$ 23,611	\$ 107,962
Fringe Benefits	\$ 8,373	\$ 3,605	\$ 3,353	\$ 15,331
Total Labor	\$ 67,340	\$ 28,989	\$ 26,964	\$ 123,293
Travel	\$ -	\$ -		\$ -
Equipment	\$ -	\$ -		\$ -
Materials/Miscellaneous	\$ -	\$ -		\$ -
Subcontractors	\$ -	\$ -		\$ -
Total Other Direct Costs	\$ -	\$ -		\$ -
Indirect Costs	\$ 20,067	\$ 8,639	\$ 8,035	\$ 36,741
Profit (not allowed for grant recipients)	\$ 8,740	\$ -	\$ -	\$ 8,740
Total Indirect and Profit	\$ 28,807	\$ 8,639	\$ 8,035	\$ 45,481
Grand Totals	\$ 96,147	\$ 37,628	\$ 35,000	\$ 168,774

Direct Labor (Unloaded)

InfoMagnus

Hourly Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per hour)	# of Hours	Energy Commission Funds	Match Share	Metro Match	Total
Narayanan Kulasaker	Director of Analytics	\$ 91.35	275	\$ 25,120	\$ -		\$ 25,120
Harikumar Tata	Technology Lead	\$ 41.35	275	\$ 11,370	\$ -	\$ 11,370.19	\$ 22,740
Naveen Kirane	Sr Database Dev	\$ 39.90	275	\$ 10,974	\$ -		\$ 10,974
Himanshu Kumar	Sr Developer	\$ 41.83	275	\$ 11,502	\$ -	\$ 11,544.23	\$ 23,047
Kaveh Mahjoob	Architect	\$ 115.38	110	\$ -	\$ 12,692	\$ 697	\$ 13,389
Sal Manzo	Project Manager	\$ 115.38	110	\$ -	\$ 12,692		\$ 12,692
Hourly Direct Labor Totals				\$ 58,966	\$ 25,385	\$ 23,611	\$ 107,962

Monthly Salary Rates

Employee Name	Job Classification / Title	Maximum Labor Rate (\$ per month)	# of Months	Energy Commission Funds	Match Share	Metro Match	Total
-	-	\$ -	-	\$ -	\$ -		\$ -
Monthly Direct Labor Totals				\$ -	\$ -		\$ -
				Energy Commission Funds	Match Share		Total
Direct Labor Grand Totals				\$ 58,966	\$ 25,385	\$ 23,611	\$ 107,962

Fringe Benefits

InfoMagnus

Fringe Benefit Base Description (Employee or Job Classification/Title)	Max. Fringe Benefit Rate (%)	Direct Labor Costs (\$)	Energy Commission Funds	Match Share	Metro Match	Total
All Classifications	14.20%	\$ 107,962	\$ 8,373	\$ 3,605	\$ 3,353	\$ 15,331
Fringe Benefit Totals		\$ 107,962	\$ 8,373	\$ 3,605	\$ 3,353	\$ 15,331

Travel
InfoMagnus

Task No.	Traveler's Name and/or Classification	Departure and Destination	Trip Purpose	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Equipment

InfoMagnus

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Materials & Miscellaneous

InfoMagnus

Task No.	Description	Purpose	# Units	Unit Cost	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -	\$ -
Total:					\$ -	\$ -	\$ -

Subcontracts

InfoMagnus

Task No.	Subcontractor Name	Purpose	CA Business Certifications DVBE/ SB/MB/None	Energy Commission Funds	Match Share	Total
				\$ -	\$ -	\$ -
Total:				\$ -	\$ -	\$ -

Indirect Costs and Profit

InfoMagnus

Indirect Cost(s)

Name of Indirect Cost	Maximum Rate	Indirect Cost Base Description	Indirect Cost Base Amount	Energy Commission Funds	Match Share	Metro Match	Total
Overhead	10.00%	Modified Direct Labor	\$ 123,293	\$ 6,734	\$ 2,899	\$ 2,696	\$ 12,329
General & Administrative (G&A)	18.00%	Direct Labor, Fringe Benefits, Indirect Costs	\$ 135,622	\$ 13,333	\$ 5,740	\$ 5,339	\$ 24,412
Total:			\$ 20,067	\$ 8,639	\$ 8,035	\$ 36,741	

Profit

(Profit is not allowed for Grant Recipients)

Profit Rate	Profit Base Description	Profit Base Amount	Energy Commission Funds	Match Share	Total
7.00%	Total costs	\$ 160,034	\$ 8,740	-	\$ 8,740
Total:			\$ 8,740	-	\$ 8,740

EXHIBIT C

ALTERNATIVE AND RENEWABLE FUEL AND VEHICLE TECHNOLOGY PROGRAM (ARFVTP) TERMS AND CONDITIONS

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TERMS AND CONDITIONS

1. **Grant Agreement**

This project is being funded with a grant from the California Energy Commission's (Energy Commission) Alternative and Renewable Fuel and Vehicle Technology Program.

This Agreement is comprised of the grant funding award, the Terms and Conditions, and all attachments. These Terms and Conditions are standard requirements for grant awards. The Energy Commission may impose additional special conditions in this grant Agreement that address the unique circumstances of this project. Special conditions that conflict with these standard provisions take precedence.

The Recipient's authorized representative shall sign all copies of this Agreement and return all signed packages to the Energy Commission's Grants and Loans Office within 30 days. Failure to meet this requirement may result in the forfeiture of this award. When all required signatures are obtained, an executed copy will be returned to the Recipient.

The term of this Agreement or the Agreement Period is the length of this Agreement between the Energy Commission and the Recipient. Project means Recipient's specific project that is funded in whole or in part by this Agreement. The Recipient's project may coincide with or extend outside the Agreement Period.

All reimbursable work and/or the expenditure of funds must occur within the approved term of this Agreement. The Energy Commission cannot authorize any payments until all parties sign this Agreement.

2. **Documents Incorporated by Reference**

The documents below are incorporated by reference into this Agreement. These terms and conditions will govern in the event of a conflict with the documents below, with the exception of the documents in subsection (f). Where this Agreement or California laws and regulations are silent or do not apply, the Energy Commission will use the federal cost principles and acquisition regulations listed below as guidance in determining whether reimbursement of claimed costs is allowable. Documents incorporated by reference include:

Solicitation Documents (if applicable)

- a. The funding solicitation under which this Agreement was awarded.
- b. The Recipient's proposal submitted in response to the solicitation

Federal Cost Principles (applicable to state and local governments, Indian tribes, institutions of higher education, and nonprofit organizations)

- c. 2 Code of Federal Regulations (CFR) Part 200, Subpart E (Sections 200.400 et seq.)

Federal Acquisition Regulations (applicable to commercial organizations)

- d. 48 CFR, Ch.1, Subchapter E, Part 31, Subpart 31.2: Contracts with Commercial Organizations (supplemented by 48 CFR, Ch. 9, Subchapter E, Part 931, Subpart 931.2 for Department of Energy grants)

Nondiscrimination

- e. 2 California Code of Regulations, Section 8101 et seq.: Contractor Nondiscrimination and Compliance

General Laws

- f. Any federal, state, or local laws or regulations applicable to the project that are not expressly listed in this Agreement

3. *Funding Limitations*

Any federal, State, and local laws and regulations applicable to your project not expressly listed in this Agreement are incorporated herein as part of this Agreement.

4. *Due Diligence*

The Recipient is required to take timely actions which, taken collectively, move this project to completion. The Energy Commission Agreement Manager (CAM) will periodically evaluate the Schedule of Products and Due Dates for completion of the Statement of Work tasks. If the CAM determines (1) the Recipient is not being diligent in completing the tasks in the Statement of Work or (2) the time remaining in this Agreement is insufficient to complete all project work tasks by the approved Agreement end term date, the CAM may recommend that this Agreement be terminated, and the Agreement may, without prejudice to any of the Energy Commission's remedies, be terminated.

5. *Products*

Products are defined as any tangible item specified in the Statement of Work. Unless otherwise directed, draft copies of all products identified in the Work Statement shall be submitted to the CAM for review and comment. The Recipient will submit an original and two copies of the final version of all products to the CAM.

6. *Reports*

- a. Progress Reports

The Recipient shall submit progress reports to the CAM as indicated in the Special Conditions or Work Statement. At a minimum, each progress report shall include the following:

Work Statement: This section should include a brief restatement of the approved tasks in the Work Statement and a report on the status of each, including a discussion of any products due and whether or not the project is progressing according to schedule. This section also should include a discussion of any problems encountered, proposed changes to the tasks in the Work Statement, and anticipated accomplishments in the upcoming quarter.

Financial Status: This section should include a narrative report comparing costs incurred to date with the approved Budget. The report should state whether or not the project is progressing within the approved Budget and discuss any proposed changes.

Additional Information: Additional information may be required in the progress reports as specified in the Work Statement or Special Conditions.

b. Final Reports

A draft final report shall be submitted to the CAM no later than 60 days prior to the end of the Agreement term. At a minimum, the report shall include:

- Table of Contents.
- Abstract.
- A brief summary of the objectives of the project and how these objectives were accomplished.
- Any findings, conclusions, or recommendations for follow-up or ongoing activities that might result from the successful completion of the project.
- A statement of future intent of the grant Recipient to maintain or further develop the project.
- A Payment Request form for the final payment (including any retention).
- A consolidated list of subcontractors funded in whole or in part by the grant Recipient. Include the name, address, concise statement of work done, period, and value of each.
- Additional information specified in the Work Statement or Special Conditions.

The CAM will review the draft report. The Recipient will incorporate applicable comments and submit the final report (the original and two copies) to the CAM.

Upon receipt of the final report, the CAM shall ensure that all work has been satisfactorily completed.

c. Rights in Reports

The Energy Commission reserves the right to use and reproduce all reports and data produced and delivered pursuant to this Agreement, and reserves the right to authorize others to use or reproduce such materials. Each report becomes the property of the Energy Commission.

d. **Failure to Comply with Reporting Requirements**

Failure to comply with the reporting requirements contained in this Agreement will be considered a material noncompliance with the terms of this Agreement. Noncompliance may result in withholding of future payments, suspension or termination of the current award, and withholding of future awards. A willful failure to perform, a history of failure to perform, or unsatisfactory performance of this and/or other financial assistance awards, may also result in a debarment action to preclude future awards.

7. Publications - Legal Statement on Reports and Products

You are encouraged to publish or otherwise make publicly available the results of the work conducted under the award.

No product or report produced as a result of work funded by this program shall be represented to be endorsed by the Energy Commission, and all such products or reports shall include the following statement:

LEGAL NOTICE

This document was prepared as a result of work sponsored by the California Energy Commission. It does not necessarily represent the views of the Energy Commission, its employees, or the State of California. The Energy Commission, the State of California, its employees, contractors, and subcontractors make no warranty, express or implied, and assume no legal liability for the information in this document; nor does any party represent that the use of this information will not infringe upon privately owned rights.

8. Changes to the Agreement

a. **Significant Changes**

Significant changes to this Agreement must be approved by the Energy Commission through a formal amendment. Significant changes include, but are not limited to:

- Change of Recipient's legal name,
- Change of Recipient,
- Changes in order to disencumber funds,
- Changes to the Work Statement that reasonably modify the purpose of the Agreement,
- Changes to the Schedule of Products that extend the due dates beyond the term of the Agreement,
- Changes to the Budget that increase the amount of the Agreement,

- Changes to the Budget that increase rates or fees.

The Recipient shall submit a request in writing to the CAM with a copy to the Energy Commission Grants and Loans Officer for any significant change. The CAM will notify the Recipient Project Manager of the appropriate Energy Commission action within ten (10) working days.

b. Nonsignificant Changes

Changes that are not significant to the Agreement do not need to be approved at a Energy Commission business meeting through a formal amendment. These changes shall be documented in a Letter of Agreement, signed by both parties.

c. Schedule of Products and Due Dates

If the Schedule of Products and Due Dates needs to be revised after the execution of the Agreement, the revised dates cannot extend beyond the term end date of the Agreement without a formal amendment. Recipient shall work with the CAM to agree on the new product due dates. The CAM will issue the revised Schedule of Products and Due Dates to the Recipient and the Grants and Loans Office.

d. Budget Reallocations

(1) The Energy Commission, through its CAM and Grants and Loans Officer, and the Recipient can agree upon and make certain budget reallocations without a formal amendment to this Agreement as long as ALL of the following conditions are met:

- (a) The total of all budget reallocations cannot exceed ten percent (10%) with a cap amount of \$150,000 of the Agreement Amount. For purposes of this provision, "Agreement Amount" means the total amount of Energy Commission funds being paid to the Recipient under this Agreement. It does not include any match funds provided by the Recipient.

For example, if under an agreement the Energy Commission agrees to pay a recipient \$100,000 and the recipient is supplying \$500,000 in match funding, the ten percent (10%) limitation applies to the \$100,000. Only up to \$10,000 of Energy Commission funds could be reallocated without a formal amendment. If under an agreement the Energy Commission agrees to pay a recipient \$2,000,000, ten percent would be \$200,000, but the cap is \$150,000, so the most that could be reallocated without a formal amendment is \$150,000.

- (b) The budget reallocation cannot substantially change the scope of work. Examples of budget reallocations that do not substantially change the scope of work include, but are not limited to, the following:
- Increasing or decreasing the overall travel budget. This does not mean an increase to the allowed per diem rates under this Agreement.
 - Increasing or decreasing the equipment budget.
 - Increasing or decreasing the number of personnel assigned to complete tasks. This does not include increasing the hourly rates of the personnel and classifications listed in the budget. Increasing hourly rates requires a formal amendment. The addition of personnel also requires a formal amendment unless there is already an identified classification of rates in the budget that the new personnel will be filling.
- (c) The budget reallocation only involves moving funds between tasks. The total Agreement Amount must remain unchanged. Increasing the total amount of the Agreement requires a formal amendment.
- (d) The budget reallocation does not increase the percentage rate of Indirect Overhead, Fringe Benefits, General and Administrative Costs, or any other rates listed in the budget. For example, if an agreement budget lists the Indirect Overhead percentage rate as 25% of Direct Labor, the 25% cannot be changed without a formal amendment.
- (2) To effectuate a budget reallocation under this section, the Recipient must make a request in writing to both the CAM and the Grants and Loans Officer. Both the CAM and the Grants and Loans Officer will then approve or disapprove the request in writing; the approval or disapproval is not effective or binding unless signed by both the CAM and the Grants and Loans Officer. Oral communications cannot be used or relied upon. If the request is approved, the CAM shall revise the Budget Attachments to reflect the changes and send them to the Grants and Loans Officer and the Recipient.
- (3) Any desired budget reallocations that do not meet the four criteria in this section must be made through a formal amendment.
- (4) Attempted budget reallocations that do not meet the requirements of this section are not legally binding upon the parties.

e. Amendments

This Agreement may be amended to make changes, including without limitation, additional funds, additional time, additional or modified tasks, and additional or modified terms.

9. Contracting and Procurement Procedures

This section provides general requirements for an agreement between the Recipient and a third party ("subcontractor").

All subcontracts must be submitted to the CAM for review prior to execution, pursuant to the administrative task. For subcontracts that are listed as "to be determined" in the budget, the Recipient must submit the subcontractor's budget information to the CAM, using the budget forms provided, and have an executed subcontract, before the subcontractor can incur any costs for which the Recipient will seek reimbursement.

The Recipient is required, where feasible, to employ contracting and procurement practices that promote open competition for all goods and services needed to complete this project. Recipient shall obtain price quotes from an adequate number of sources for all subcontracts.

The Energy Commission will defer to the Recipient's own regulations and procedures as long as they reflect applicable state and local laws and regulations and are not in conflict with the minimum standards specified in this Agreement.

Upon request, the Recipient must submit to the CAM a copy of all solicitations for services or products required to carry out the terms of this Agreement and copies of the proposals or bids received. If a specific subcontractor was identified in the original grant application and the grant was evaluated based in part on this subcontractor's qualifications, then prior written approval from the CAM is required before substituting a new subcontractor.

The Recipient is responsible for handling all contractual and administrative issues arising out of or related to any subcontracts it enters into under this Agreement.

All subcontracts must incorporate all of the following:

- A clear and accurate description of the material, products, or services to be procured as well as a detailed budget and timeline.
- Provisions that allow for administrative, contractual, or legal remedies in instances where subcontractors violate or breach contract terms, and provide for such sanctions and penalties as may be appropriate.
- Provisions for termination by the Recipient, including termination procedures and the basis for settlement.
- Language conforming to the "Nondiscrimination" provision in this Agreement.
- The Standard of Performance provisions specified in this Agreement.

- Retention of Records provisions specified in this Agreement.
- Audits provisions specified in this Agreement.
- Language conforming to the "Indemnification" provision in this Agreement.
- Public Work -- Payment of Prevailing Wages Generally Required by Law provisions in this Agreement

Recipients who are subcontracting with University of California (UC) may use the terms and conditions negotiated by the Energy Commission with UC for their subcontracts. Recipients who are subcontracting with the Department of Energy (DOE) national laboratories may use the terms and conditions negotiated with DOE.

Failure to comply with the above requirements may result in the termination of this Agreement.

10. Bonding and Insurance

The Recipient will follow its own bonding and insurance requirements relating to bid guarantees, performance bonds, and payment bonds without regard to the dollar value of the subcontract(s) as long as they reflect applicable state and local laws and regulations.

11. Permits and Clearances

The Recipient is responsible for ensuring all necessary permits and environmental documents are prepared and clearances are obtained from the appropriate agencies.

12. Equipment

Equipment is defined as having a useful life of at least one year, having an acquisition unit cost of at least \$5,000, and purchased with Energy Commission funds. Equipment means any products, objects, machinery, apparatus, implements or tools purchased, used or constructed within the Project, including those products, objects, machinery, apparatus, implements or tools from which over thirty percent (30%) of the equipment is composed of materials purchased for the Project. For purposes of determining depreciated value of equipment used in the Agreement, the Project shall terminate at the end of the normal useful life of the equipment purchased, funded and/or developed with Energy Commission funds. The Energy Commission may determine the normal useful life of such equipment.

Title to equipment acquired by the Recipient with grant funds shall vest in the Recipient. The Recipient shall use the equipment in the project or program for which it was acquired as long as needed, whether or not the project or program continues to be supported by grant funds, and the Recipient shall not encumber the property without CAM approval. When no longer needed for the original project or program, the Recipient shall contact the CAM for disposition instructions.

13. Termination

This project may be terminated for any reason set forth below.

a. **With Cause**

In the event of any breach by the Recipient of the conditions set forth in this Agreement, this Agreement may be terminated for cause upon five (5) days written notice to the Recipient, without prejudice to any of the Energy Commission's legal remedies.

b. **Without Cause**

This Agreement may, at the Energy Commission's option, be terminated without cause in whole or in part, upon giving thirty (30) days advance notice in writing to the Recipient by certified mail, return receipt requested. In such event, the Recipient agrees to use all reasonable efforts to mitigate the Recipient's expenses and obligations hereunder. Also in such event, the Energy Commission shall pay the Recipient for all satisfactory work performed and expenses incurred within 30 days after such notice of termination which could not by reasonable efforts of the Recipient have been avoided, but not in excess of the maximum payable under this Agreement.

14. Stop Work

The Energy Commission Grants Officer may, at any time, by written notice to Recipient, require Recipient to stop all or any part of the work tasks in this Agreement. Stop work orders may be issued for reasons such as a project exceeding budget, standard of performance, out of scope work, delay in Project schedule, misrepresentations and the like.

a. **Compliance.** Upon receipt of such stop work order, Recipient shall immediately take all necessary steps to comply therewith and to minimize the incurrence of costs allocable to work stopped.

b. **Equitable Adjustment.** An equitable adjustment shall be made by Energy Commission based upon a written request by Recipient. Such adjustment request must be made by Recipient within thirty (30) days from the date of the stop work order.

c. **Canceling a Stop Work Order.** Recipient shall resume the work only upon receipt of written instructions from the Energy Commission Grants Officer.

15. Travel and Per Diem

a. The Recipient shall be reimbursed for travel and per diem expenses using the same rates provided to non-represented State employees. The Recipient must pay for travel in excess of these rates. The Recipient may obtain current rates from the Energy Commission's Web Site at: http://www.energy.ca.gov/contracts/TRAVEL_PER_DIEM.PDF.

- b. For purposes of payment, Recipient's headquarters shall be considered the location of the Recipient's office where the employees' assigned responsibilities for this award are permanently assigned. Travel expenditures not listed in this section cannot be reimbursed.
- c. Travel identified in the Budget section of this Agreement is approved and does not require further authorization.
- d. Travel that is not included in the Budget section of this Agreement shall require written authorization from the CAM and Grants and Loans Officer prior to travel departure. The Energy Commission will reimburse travel expenses from the Recipient's office location.
- e. The Recipient must retain documentation of travel expenses in its financial records. The documentation must be listed by trip and include dates and times of departure and return, departure and destination cities. Travel receipts, including for travel meals and incidentals, shall be submitted with invoices requesting reimbursement from the Energy Commission.

16. Standard of Performance

Recipient, its subcontractors and their employees, in the performance of Recipient's work under this Agreement shall be responsible for exercising the degree of skill and care required by customarily accepted good professional practices and procedures used in the Recipient's field.

Any costs for failure to meet the foregoing standard or to correct otherwise defective work that requires re-performance of the work, as directed by CAM, shall be borne in total by Recipient and not the Energy Commission. The failure of a project to achieve the performance goals and objectives stated in the Work Statement is not a basis for requesting re-performance unless the work conducted by Recipient and/or its subcontractors is deemed by the Energy Commission to have failed the foregoing standard of performance.

In the event Recipient/subcontractor fails to perform in accordance with the above standard:

- Recipient/subcontractor will re-perform, at its own expense, any task which was not performed to the reasonable satisfaction of the CAM. Any work re-performed pursuant to this paragraph shall be completed within the time limitations originally set forth for the specific task involved. Recipient/subcontractor shall work any overtime required to meet the deadline for the task at no additional cost to the Energy Commission;
- The Energy Commission shall provide a new schedule for the re-performance of any task pursuant to this paragraph in the event that re-performance of a task within the original time limitations is not feasible; and

- The Energy Commission shall have the option to direct Recipient/subcontractor not to re-perform any task which was not performed to the reasonable satisfaction of the CAM pursuant to application of (1) and (2) above. In the event the Energy Commission directs Recipient/subcontractor not to re-perform a task, the Energy Commission and Recipient shall negotiate a reasonable settlement for satisfactory work performed. No previous payment shall be considered a waiver of the Energy Commission's right to reimbursement.

Nothing contained in this section is intended to limit any of the rights or remedies which the Energy Commission may have under law.

17. Payment of Funds

The Energy Commission agrees to reimburse the Recipient for actual allowable expenditures incurred in accordance with the Budget. The rates in the Budget are rate caps, or the maximum amount allowed to be billed. The Recipient can only bill for actual expenses incurred at the Recipient's actual direct labor rate(s), fringe benefit rate(s), and indirect rate(s), not to exceed the rates specified in the Budget.

a. Payment Requests

The Recipient may request payment from the Energy Commission at any time during the term of this Agreement although it is preferred that payment requests be submitted with the progress reports. The final payment request must be received by the Energy Commission along with the draft Final Report 60 days prior to the end of the Agreement term.

Payments will generally be made on a reimbursement basis for Recipient expenditures, i.e., after the Recipient has incurred the cost for a service, product, supplies, or other approved budget item. No reimbursement for food or beverages shall be made other than allowable per diem charges.

Funds in this Agreement have a limited period in which they must be expended. All Recipient expenditures must occur within the approved term of this Agreement.

b. Documentation

All payment requests must be submitted using a completed Payment Request form. This form must be accompanied by an itemized list of all charges and copies of all receipts or invoices necessary to document these charges for both Energy Commission and match share, including backup documentation for actual expenditures, such as time cards, vendor invoices, and proof of payment. Any payment request that is submitted without the itemization will not be authorized. If the itemization or documentation is incomplete, inadequate, or inaccurate, the CAM will inform the Recipient and hold the invoice until all required information is received or corrected. Any penalties imposed on the Recipient by a subcontractor because of delays in payment will be paid by the Recipient.

Any documentation in foreign currency must be converted to dollars, and the conversion rate must be included in your itemization.

c. Certification

The following certification shall be included on each Payment Request form and signed by the Recipient's authorized officer:

I certify that this invoice is correct and proper for payment, and reimbursement for these costs has not and will not be received from any other sources, including but not limited to a government entity contract, subcontract or other procurement method.

Additional certification required related to the payment of prevailing wages. Refer to section 27 of these terms and conditions for more information.

d. Government Entity

Government Entity is defined as a governmental agency from California or any state or a state college or state university from California or any state; a local government entity or agency, including those created as a Joint Powers Authority; an auxiliary organization of the California State University or a California community college; the Federal Government; a foundation organized to support the Board of Governors of the California Community Colleges or an auxiliary organization of the Student Aid Commission established under Education Code 69522.

e. Release of Funds

The CAM will not process any payment request during the Agreement term until the following conditions have been met:

- All required reports have been submitted and are satisfactory to the CAM.
- All applicable special conditions have been met.
- All appropriate permits or permit waivers from governmental agencies have been issued to the Recipient and copies have been received by the CAM.
- All products due have been submitted and are satisfactory to the CAM.
- Other prepayment conditions as may be required by the CAM have been met. Such conditions will be specified in writing ahead of time, if possible.

f. Fringe Benefits, Indirect Overhead, and General and Administrative (G&A), Indirect cost rates must be developed in accordance with generally accepted accounting principles. If the Recipient has an approved fringe benefits or indirect cost rate (indirect overhead or G&A) from their cognizant Federal Agency, the Recipient may bill at the federal rate up to the Budget rate caps if the following conditions are met:

- The Recipient may bill at the federal provisional rate but must adjust annually to reflect their actual final rates for the year in accordance with the Labor, Fringe, and Indirect Invoicing Instructions which can be accessed in this agreement.
- The cost pools used to develop the federal rates must be allocable to the Energy Commission Agreement, and the rates must be representative of the portion of costs benefiting the Energy Commission Agreement. For example, if the federal rate is for manufacturing overhead at the Recipient's manufacturing facility and the Energy Commission Agreement is for research and development at their research facility, the federal indirect overhead rate would not be applicable to the Energy Commission Agreement.
- The federal rate must be adjusted to exclude any costs that are specifically prohibited in the Energy Commission Agreement.
- The Recipient may only bill up to the Agreement Budget rate caps unless and until an amendment to the Agreement Budget is approved.

g. Retention

It is the Energy Commission's policy to retain 10 percent of any payment request or 10 percent of the total Energy Commission award at the end of the project. After the project is complete the Recipient must submit a completed payment request form requesting release of the retention. The CAM will review the project file and, when satisfied that the terms of the funding Agreement have been fulfilled, will authorize release of the retention.

h. State Controller's Office

Payments are made by the State Controller's Office.

18. Fiscal Accounting Requirements

a. Accounting and Financial Methods

The Recipient shall establish a separate ledger account or fund for receipt and disbursement of Energy Commission funds for each project funded by the Energy Commission. Expenditure details must be maintained in accordance with the approved budget details using appropriate accounting practices.

b. Retention of Records

The Recipient shall retain all project records (including financial records, progress reports, and payment requests) for a minimum of three (3) years after the final payment has been received or three years after the federal grant term, whichever is later, unless otherwise specified in the funding Agreement.

Records for nonexpendable personal property acquired with grant funds shall be retained for three years after its final disposition or three years after the federal grant term, whichever is later.

c. Audits

Upon written request from the Energy Commission, the Recipient shall provide detailed documentation of all expenses at any time throughout the project. In addition, the Recipient agrees to allow the Energy Commission or any other agency of the State, or their designated representative, upon written request, to have reasonable access to and the right of inspection of all records that pertain to the project during the term of this Agreement and for a period of three (3) years thereafter or three years after the federal grant term, whichever is later, unless the Energy Commission notifies the Recipient, prior to the expiration of such three-year period, that a longer period of record retention is necessary. Further, the Recipient agrees to incorporate an audit of this project within any scheduled audits, when specifically requested by the State. Recipient agrees to include a similar right to audit in any subcontract.

Recipients are strongly encouraged to conduct annual audits in accordance with the single audit concept. The Recipient should provide two copies of the independent audit report and any resulting comments and correspondence to the CAM within 30 days of the completion of such audits.

d. Cost or Match Share

Cost or Match Share means cash or in-kind (non-cash) contributions provided by Recipient, subcontractors or other parties that will be used in performance of this Agreement.

If the grant Budget includes cost or match share under this Agreement, the Recipient agrees to be liable for the percentage of cost or match share identified in this Agreement of the total allowable project costs incurred even if the project is terminated early or is not funded to its completion.

Total allowable project cost is the sum of the Agreement share and Recipient share of the project costs. *Cost share* percentage is calculated by dividing Recipient cost share amount by the total allowable project cost. *Match share* percentage is calculated by dividing Recipient match share by the Agreement share of the project costs.

Failure to provide the minimum required cost or match share may result in the subsequent recovery of some or all of the funds provided under this Agreement.

The Recipient must maintain accounting records detailing the expenditure of the match (actual cash and in-kind services) and provide complete documentation of expenditures as described under "Payment of Funds."

19. Indemnification

The Recipient agrees to indemnify, defend, and save harmless the State, its officers, agents, and employees from any and all claims and losses accruing or resulting to Recipient and to any and all contractors, subcontractors, materialmen, laborers, and any other person, firm, or corporation furnishing or supplying work, services, materials, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm, or corporation who may be injured or damaged by the Recipient in the performance of this Agreement.

20. Disputes

In the event of a dispute or grievance between Recipient and the Energy Commission regarding this Agreement, the following two-step procedure shall be followed by both parties. Recipient shall continue with responsibilities under this Agreement during any dispute.

a. Energy Commission Dispute Resolution Level 1

The Recipient shall first discuss the problem informally with the CAM. If the problem cannot be resolved at this stage, the Recipient must direct the grievance together with any evidence, in writing, to the Energy Commission Grants and Loans Officer. The grievance must state the issues in the dispute, the legal authority or other basis for the Recipient's position and the remedy sought. The Energy Commission Grants and Loans Officer and the Program Office Manager must make a determination on the problem within ten (10) working days after receipt of the written communication from the Recipient. The Grants and Loans Officer shall respond in writing to the Recipient, indicating a decision supported by reasons. Should the Recipient disagree with the Grants and Loans Officer decision, the Recipient may appeal to the second level.

b. Energy Commission Dispute Resolution Level 2

The Recipient must prepare a letter indicating why the Grants and Loans Officer's decision is unacceptable, attaching to it the Recipient's original statement of the dispute with supporting documents, along with a copy of the Grants and Loans Officer's response. This letter shall be sent to the Executive Director at the Energy Commission within ten (10) working days from receipt of the Grants and Loans Officer's decision. The Executive Director or designee shall meet with the Recipient to review the issues raised. A written decision signed by the Executive Director or designee shall be returned to the Recipient within twenty (20) working days of receipt of the Recipient's letter. The Executive Director may exercise the option of presenting the decision to the Energy Commission at a business meeting. Should the Recipient disagree with the Executive Director's decision, the Recipient may appeal to the Energy Commission at a regularly scheduled business meeting. Recipient will be provided with the current procedures for placing the appeal on a Energy Commission Business Meeting Agenda.

21. Workers' Compensation Insurance

- a. Recipient hereby warrants that it carries Worker's Compensation Insurance for all of its employees who will be engaged in the performance of this Agreement, and agrees to furnish to the CAM satisfactory evidence of this insurance at any time the CAM may request.
- b. If Recipient is self-insured for worker's compensation, it hereby warrants such self-insurance is permissible under the laws of the State of California and agrees to furnish to the CAM satisfactory evidence of this insurance at any time the CAM may request.

22. General Provisions

a. Governing Law

It is hereby understood and agreed that this Agreement shall be governed by the laws of the State of California as to interpretation and performance.

b. Independent Capacity

The Recipient, and the agents and employees of the Recipient, in the performance of this Agreement, shall act in an independent capacity and not as officers or employees or agents of the Energy Commission.

c. Assignment

Without the written consent of the Energy Commission in the form of a formal written amendment, this Agreement is not assignable or transferable by Recipient either in whole or in part.

d. Timeliness

Time is of the essence in this Agreement.

e. Unenforceable Provision

In the event that any provision of this Agreement is unenforceable or held to be unenforceable, then the parties agree that all other provisions of this Agreement have force and effect and shall not be affected thereby.

f. Waiver

No waiver of any breach of this Agreement shall be held to be a waiver of any other or subsequent breach. All remedies afforded in this Agreement shall be taken and construed as cumulative, that is, in addition to every other remedy provided therein or by law.

g. Assurances

The Energy Commission reserves the right to seek further written assurances from the Recipient and its team that the work of the project under this Agreement will be performed consistent with the terms of the Agreement.

h. Change in Business

- (1) Recipient shall promptly notify the Energy Commission of the occurrence of each of the following:
 - (a) A change of address.
 - (b) A change in the business name or ownership.
 - (c) The existence of any litigation or other legal proceeding affecting the project.
 - (d) The occurrence of any casualty or other loss to project personnel, equipment or third parties of a type commonly covered by insurance.
 - (e) Receipt of notice of any claim or potential claim against Recipient for patent, copyright, trademark, service mark and/or trade secret infringement that could affect the Energy Commission's rights.
- (2) Recipient shall not change or reorganize the type of business entity under which it does business except upon prior written notification to the Energy Commission. A change of business entity or name change requires an amendment assigning or novating the Agreement to the changed entity. In the event the Energy Commission is not satisfied that the new entity can perform as the original Recipient, the Energy Commission may terminate this Agreement as provided in the termination paragraph.

i. Survival of Terms

It is understood and agreed that certain provisions shall survive the completion or termination date of this Agreement for any reason. The provisions include, but are not limited to:

- "Payments of Funds"
- "Equipment"
- "Change in Business"
- "Disputes"
- "Termination"
- "Audit"
- "Indemnification"
- "Fiscal Accounting Requirements"

23. Certifications and Compliance

a. Federal, State and Municipal Requirements

Recipient must obtain any required permits and shall comply with all applicable federal, State, and municipal laws, rules, codes, and regulations for work performed under this Agreement.

b. Nondiscrimination Statement of Compliance

During the performance of this Agreement, Recipient and its subcontractors shall not unlawfully discriminate, harass or allow harassment, against any employee or applicant for employment because of sex, sexual orientation, race, color, ancestry, religious creed, national origin, disability (including HIV and AIDS), medical condition (cancer), age, marital status, and denial of family care leave. Recipient and its subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment. Recipient and its subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code Sections 12990 et seq.) and the applicable regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7285.0 et seq.). The applicable regulations of the Fair Employment and Housing Commission implementing Government Code Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this Agreement by reference and made a part of it as if set forth in full. Recipient and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other Agreement.

The Recipient shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under this Agreement.

c. Drug-Free Workplace Certification

By signing this Agreement, the Recipient hereby certifies under penalty of perjury under the laws of the State of California that the Recipient will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

- (1) Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations as required by Government Code Section 8355(a)(1).
- (2) Establish a Drug-Free Awareness Program as required by Government Code Section 8355(a)(2) to inform employees about all of the following:
 - The dangers of drug abuse in the workplace;
 - The person's or organization's policy of maintaining a drug-free workplace;
 - Any available counseling, rehabilitation, and employee assistance programs; and
 - Penalties that may be imposed upon employees for drug abuse violations.
- (3) Provide, as required by Government Code Section 8355(a)(3), that every employee who works on the proposed project:
 - Will receive a copy of the company's drug-free policy statement;
 - Will agree to abide by the terms of the company's statement as a condition of employment on the project.

Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both, and the Recipient may be ineligible for any future State awards if the Energy Commission determines that any of the following has occurred: (1) the Recipient has made false certification, or (2) violates the certification by failing to carry out the requirements as noted above.

d. Child Support Compliance Act (Applicable to California Employers)

For any Agreement in excess of \$100,000, the Recipient acknowledges that:

- It recognizes the importance of child and family support obligations and shall fully comply with all applicable State and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
 - To the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.
- e. Americans with Disabilities Act

By signing this Agreement, Recipient assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990 (42 U.S.C. 12101, et seq.), which prohibits discrimination on the basis of disability, as well as applicable regulations and guidelines issued pursuant to the ADA.

24. Site Visits

The Energy Commission and/or its designees have the right to make site visits at reasonable times to review project accomplishments and management control systems and to provide technical assistance, if required. Recipient must provide and must require subawardees to provide reasonable facilities and assistance for the safety and convenience of the government representatives in the performance of their duties. All site visits and evaluations must be performed in a manner that does not unduly interfere with or delay the work.

25. Confidentiality

A. Information Considered Confidential

Confidential information is information designated confidential pursuant to the procedures specified in 20 CCR 2505. If applicable, all Recipient information considered confidential at the commencement of this Agreement is designated in the Attachment to this Exhibit.

B. Confidential Deliverables: Labeling and Submitting Confidential Information

Prior to the commencement of this Agreement, if applicable, the parties have identified in the Attachment to this Exhibit, specific Confidential Information to be provided as a deliverable. All such confidential deliverables shall be marked, by the Recipient, as "Confidential" on each page of the document containing the Confidential Information and presented in a sealed package to the Energy Commission Grants Officer. (Non-confidential deliverables are submitted to the Accounting Office.) All Confidential Information will be contained in the "confidential" volume: no Confidential Information will be in the "public" volume.

C. Submittal of Unanticipated Confidential Information as a Deliverable

The Recipient and the Energy Commission agree that during this Agreement, it is possible that the Recipient may develop additional data or information not originally anticipated as a confidential deliverable. In this case, Recipient shall follow the procedures for a request for designation of Confidential Information specified in 20 CCR 2505. The Energy Commission's Executive Director makes the determination of confidentiality.

Such subsequent determinations may be added to the list of confidential deliverables in the Attachment to this Exhibit.

D. Disclosure of Confidential Information

Disclosure of Confidential Information by the Energy Commission may only be made pursuant to 20 CCR 2506 and 2507. All confidential data, records or deliverables that are legally disclosed by the Recipient or any other entity become public records and are no longer subject to the above confidentiality designation.

26. Budget Contingency Clause

It is mutually agreed that this Agreement shall be of no further force and effect if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the work identified in Exhibit A. In this event, the Energy Commission shall have no liability to pay any funds whatsoever to the Recipient or to furnish any other consideration under this Agreement, and the Recipient shall not be obligated to perform any provisions of this Agreement.

If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the Energy Commission shall have the option to either: 1) cancel this Agreement with no liability occurring to the Energy Commission; or 2) offer an Agreement Amendment to the Recipient to reflect the reduced amount.

27. Public Works -- Payment of Prevailing Wages

Generally Required by Law

Projects that receive an award of public funds from the Energy Commission often involve construction, alteration, demolition, installation, repair or maintenance work over \$1,000.

NOTE: Projects that receive an award of public funds from the Energy Commission are likely to be considered public works under the California Labor Code. See Chapter 1 of Part 7 of Division 2 of the California Labor Code, commencing with Section 1720 and Title 8, California Code of Regulations, Chapter 8, Subchapter 3, commencing with Section 16000.

Accordingly, the Energy Commission assumes that all projects it funds are public works. Projects deemed to be public works require among other things the payment of prevailing wages.

NOTE: Prevailing wage rates can be significantly higher than non-prevailing wage rates.

By accepting this grant, Recipient as a material term of this agreement shall be fully responsible for complying with all California public works requirements including but not limited to payment of prevailing wage. Therefore, as a material term of this grant, Recipient must either:

(a) Proceed on the assumption that the project is a public work and ensure that:

- (i) prevailing wages are paid; and
- (ii) the project budget for labor reflects these prevailing wage requirements; and
- (iii) the project complies with all other requirements of prevailing wage law including but not limited to keeping accurate payroll records, and complying with all working hour requirements and apprenticeship obligations;

or,

(b) Timely obtain a legally binding determination from DIR or a court of competent jurisdiction before work begins on the project that the proposed project is not a public work.

NOTE: Only the California Department of Industrial Relations (DIR) and courts of competent jurisdiction have jurisdiction to issue legally binding determinations that a particular project is or is not a public work.

If the Recipient is unsure whether the project receiving this award is a “public work” as defined in the California Labor Code, it may wish to seek a timely determination from the California Department of Industrial Relations (DIR) or an appropriate court.

NOTE: Such processes can be time consuming and therefore it may not be possible to obtain a timely determination before the date for performance of the award commences.

If the Recipient does not timely obtain a binding determination from DIR or a court of competent jurisdiction that the project is not a public work, before the grant agreement from the Energy Commission is executed, the Recipient shall assume that the project is a public work and that payment of prevailing wages is required and shall pay prevailing wages unless and until such time as the project is subsequently determined to not be a public work by DIR or a court of competent jurisdiction.

NOTE: California Prevailing Wage law provides for substantial damages and financial penalties for failure to pay prevailing wages when payment of prevailing wages is required.

Subcontractors and Flow-down Requirements. Recipient shall ensure that its subcontractors, if any, also comply with above requirements with respect to public works/prevailing wage. Recipient shall ensure that all agreements with its contractors/subcontractors to perform work related to this Project contain the above terms regarding payment of prevailing wages on public works projects. Recipient shall be responsible for any failure of Recipient's subcontractors to comply with California prevailing wage and public works laws.

Indemnification and breach. Any failure of Recipient or its subcontractors to comply with the above requirements shall constitute a breach of this agreement that excuses the Energy Commission's performance of this grant agreement at the Energy Commission's option, and shall be at Recipient's sole risk. In such a case, Energy Commission may refuse payment to Recipient of any amount under this award and Energy Commission shall be released, at its option, from any further performance of this award or any portion thereof. By accepting this grant award, as a material term of this agreement, Recipient agrees to indemnify the Energy Commission and hold the Energy Commission harmless for any and all financial consequences arising out of or resulting from the failure of Recipient and/or any of Recipient's subcontractors to pay prevailing wages or to otherwise comply with the requirements of prevailing wage law.

Budget. Recipient's budget on public works projects must indicate which job classifications are subject to prevailing wage. For detailed information about prevailing wage and the process to determine if the proposed project is a public work, Recipient may wish to contact the California Department of Industrial Relations (DIR) or a qualified labor attorney of their choice for guidance.

Covered Trades. For public works projects, Recipient may contact DIR for a list of covered trades and the applicable prevailing wage.

Questions. If Recipient has any questions about this contractual requirement or the wage, record keeping, apprenticeship or other significant requirements of California prevailing wage law, it is recommended that Recipient consult DIR and/or a qualified labor attorney of its choice before accepting the award for this grant.

Certification. Recipient shall certify to the Energy Commission on each Payment Request Form, either that (a) prevailing wages were paid to eligible workers who provided labor for work covered by the payment request and that the Recipient and all contractors and subcontractors otherwise complied with all California prevailing wage laws, or (b) that the project is not a public work requiring the payment of prevailing wages. In the latter case, Recipient shall provide competent proof of a DIR or court determination that the project is not a public work requiring the payment of prevailing wages.

Prior to the release of any retained funds under this Agreement, the Recipient shall submit to the Energy Commission the above-described certificate signed by the Recipient and all contractors and subcontractors performing public works activities on the project. Absent such certificate, Recipient shall have no right to any funds under this grant, and Energy Commission shall be relieved of any obligation to pay said funds.

28. *Intellectual Property*

The Energy Commission makes no claim to intellectual property developed under this Agreement that is not specified for delivery, except as expressly provided herein.

**Exhibit D
Contact List**

California Energy Commission	Recipient
<p>Commission Agreement Manager:</p> <p>Larry Rillera California Energy Commission 1516 Ninth Street, MS-27 Sacramento, CA 95814 Phone: (916) 651-6178 Fax: (916) 654-4676 e-mail: Larry.Rillera@energy.ca.gov</p>	<p>Project Managers:</p> <p>Carter Atkins (MHD) & Kerry Cartwright (ITS) City of Los Angeles, Harbor Department 425 S. Palos Verdes Street San Pedro, CA 90731 Phone: (310) 732-7649/ (310) 732-7702 Fax: (310) 547-4643 e-mail: catkins@portla.org; KCartwright@portla.org</p>
<p>Commission Agreement Officer:</p> <p>Janna Franks California Energy Commission 1516 Ninth Street, MS-18 Sacramento, CA 95814 Phone: (916) 654-4921 Fax: (916) 654-4423 e-mail: janna.franks@energy.ca.gov</p>	<p>Administrator:</p> <p>Christopher Cannon Chief Sustainability Officer City of Los Angeles, Harbor Department 425 S. Palos Verdes Street, San Pedro, CA 90731 Phone: (310) 732-3763 Fax: (310) 547-4643 e-mail: ccannon@portla.org</p>
<p>Accounting Officer:</p> <p>Kathy Jones California Energy Commission 1516 Ninth Street, MS-2 Sacramento, CA 95814 Phone: (916) 654-4377 Fax: (916) 653-1435 e-mail: Kathy.jones@energy.ca.gov</p>	<p>Accounting Officer:</p> <p>Frank Liu Accounting Director City of Los Angeles, Harbor Department 425 S. Palos Verdes Street, San Pedro, CA 90731 Phone: (310) 732-379 Fax: (310) 831-0439 e-mail: FLiu@portla.org</p>
<p>Legal Notices:</p> <p>Tatyana Yakshina Grants Manager 1516 9th Street, MS-18 Sacramento, CA 95814 Phone: (916) 654-4204 Fax: (916) 654-4423 e-mail: tatyana.yakshina@energy.ca.gov</p>	<p>Recipient Legal Notices:</p> <p>Office of the City Attorney, Harbor Division 425 S. Palos Verdes Street, San Pedro, CA 90731 Phone: (310) 732-3750 Fax: (310) 831-9778 e-mail:</p>

Exhibit B

MEASURE R FUNDING AGREEMENT HIGHWAY PROGRAM (General)

This Funding Agreement ("FA") is made and entered into effective as of November 18, 2016 ("Effective Date"), and is by and between the Los Angeles County Metropolitan Transportation Authority ("LACMTA") and The City of Los Angeles, acting by and through its Board of Harbor Commissioners ("GRANTEE") for the I-710 Eco-FRATIS Drayage Truck Efficiency Project, LACMTA Project ID# MR306.40 and FTIP# LA0G1354, (the "Project"). This Project is eligible for funding under Line 37 of the Measure R Expenditure Plan.

WHEREAS, LACMTA adopted Ordinance #08-01, the Traffic Relief and Rail Expansion Ordinance, on July 24, 2008 (the "Ordinance"), which Ordinance was approved by the voters of Los Angeles County on November 4, 2008 as "Measure R" and became effective on January 2, 2009.

WHEREAS, the funding set forth herein is intended to fund Design and Construction of the Project.

WHEREAS, the LACMTA Board, at its June 23, 2016 meeting, programmed \$240,000, in Measure R Funds to GRANTEE for Design and Construction, subject to the terms and conditions contained in this FA; and

WHEREAS, the Funds are currently programmed as follows: \$240,000 in Measure R Funds in Fiscal Year (FY) FY 2016-17. The total designated for Design and Construction of the Project is \$240,000.

NOW, THEREFORE, the parties hereby agree as follows:

The terms and conditions of this FA consist of the following and each is incorporated by reference herein as if fully set forth herein:

1. Part I – Specific Terms of the FA
2. Part II – General Terms of the FA
3. Attachment A – Project Funding
4. Attachment B – Measure R Expenditure Plan Guidelines
5. Attachment B-1 – Expenditure Plan- Cost & Cash Flow Budget
6. Attachment C – Scope of Work
7. Attachment D – Project Reporting and Expenditure Guidelines
8. Attachment D-1 – Monthly Progress Report
9. Attachment D-2 – Quarterly Expenditure Report
10. Attachment E – Federal Transportation Improvement Program (FTIP) Sheet
11. Attachment F – Bond Requirements
12. Any other attachments or documents referenced in the above documents

In the event of a conflict, the Special Grant Conditions, if any, shall prevail over the Specific Terms of the FA and any attachments and the Specific Terms of the FA shall prevail over the General Terms of the FA.

FTIP #: LA0G1354
Subregion ID: I-710 South and/or Early Action Project
List

Project#: MR306.40
FA# 920000000MR30640

IN WITNESS WHEREOF, the parties have caused this FA to be executed by their duly authorized representatives as of the dates indicated below:

LACMTA:

LOS ANGELES COUNTY METROPOLITAN TRANSPORTATION AUTHORITY

By: _____ Date: _____
Phillip A. Washington
Chief Executive Officer

APPROVED AS TO FORM:

MARY C. WICKHAM
County Counsel

By: _____ Date: _____
Deputy

GRANTEE:

CITY OF LOS ANGELES, By its Board of Harbor Commissioners

By: _____ Date: _____
EUGENE D. SEROKA
Executive Director

Attest: _____ Date: _____
AMBER M. KLESGES
Board Secretary

APPROVED AS TO FORM AND LEGALITY:

_____, 2016
MICHAEL N. FEUER, City Attorney
JANNA B. SIDLEY, General Counsel

By: _____
HEATHER M. McCLOSKEY, Deputy

PART I
SPECIFIC TERMS OF THE FA

1. Title of the Project (the "Project"): I-710 Eco-FRATIS Drayage Truck Efficiency Project – Design and Construction. LACMTA Project ID# MR306.40, FTIP# LA0G1354.
2. Grant Funds:
 - 2.1 Programmed Funds for this Project consist of the following: Measure R Funds.
 - 2.2 To the extent the Measure R Funds are available; LACMTA shall make to GRANTEE a grant of the Measure R funds in the amount of \$240,000 (the "Fund") for the Project. LACMTA Board of Directors' action of June 23, 2016 granted the Measure R Funds for the Project. The Funds are programmed over one year for Fiscal Year (FY) FY 2016-17.
3. This grant shall be paid on a reimbursement basis. GRANTEE must provide the appropriate supporting documentation with the Monthly Progress Report and/or the Quarterly Expenditure Report. GRANTEE Funding Commitment, if applicable, must be spent in the appropriate proportion to the Funds with each quarter's expenditures. LACMTA will withhold five percent (5%) of eligible expenditures per invoice as retention pending an audit of expenditures and completion of scope of work.
4. **Attachment A** the "Project Funding" documents all sources of funds programmed for the Project as approved by LACMTA and is attached as Attachment A. The Project Funding includes the total programmed funds for the Project, including the Funds programmed by LACMTA and, if any, the GRANTEE Funding Commitment of other sources of funding. The Project Funding also includes the fiscal years in which all the funds for the Project are programmed. The Funds are subject to adjustment by subsequent LACMTA Board Action.
5. **Attachment B-1** is the Expenditure Plan- Cost & Cash Flow Budget (the "Expenditure Plan"). It is the entire proposed cash flow, the Budget and financial plan for the Project, which includes the total sources of all funds programmed to the Project, including GRANTEE and other entity funding commitments, if any, for this Project as well as the fiscal year and quarters the Project funds are anticipated to be expended. GRANTEE shall update the Expenditure Plan annually, no later than December 31, and such update shall be submitted to LACMTA's Managing Executive Officer of Construction & Engineering in writing. If the LACMTA's Managing Executive Officer of Construction & Engineering concurs with such updated Expenditure Plan in writing, Attachment B-1 shall be replaced with the new Attachment B-1 setting forth the latest approved Expenditure Plan. Payments under this FA shall be consistent with Attachment B-1 as revised from time to time. In no event can the final milestone date be changed or amended by written concurrence by the LACMTA Managing Executive Officer of Construction & Engineering. Any change to the final milestone date must be made by a fully executed amendment to this FA.

6. **Attachment C** is the Scope of Work ("the Scope of Work"). The GRANTEE shall complete the Project as described in the Scope of Work. This Scope of Work shall include a detailed description of the Project and the work to be completed, including anticipated Project milestones and a schedule consistent with the lapsing policy in Part II, Section 9, and a description of the Project limits. No later than December 31 of each year, GRANTEE shall notify LACMTA if there are any changes to the final milestone date set forth in the schedule or any changes to the Scope of Work. If LACMTA agrees to such changes, the parties shall memorialize such changes in an amendment to this FA. Work shall be delivered in accordance with this schedule and scope unless otherwise agreed to by the parties in writing. If GRANTEE is consistently behind schedule in meeting milestones or in delivering the Project, LACMTA will have the option to suspend or terminate the FA for default as described in Part II, Sections 2, 9, 10 and 11 herein below. To the extent interim milestone dates are not met but GRANTEE believes it can make up the time so as to not impact the final milestone date, GRANTEE shall notify LACMTA of such changes in its Monthly Progress Reports and such interim milestone dates will automatically be amended to the latest interim milestone dates provided in the Monthly Progress Reports Attachment D-1. In no event can the final milestone date be amended by a Monthly Progress Report.
7. No changes to this FA, including but not limited to the Funds, and any other source of funds from LACMTA in the Project Funding, Expenditure Plan or the Scope of Work shall be allowed without an amendment to the original FA, approved and signed by both parties.
8. **Attachment D** is the Project Reporting & Expenditure Guidelines. GRANTEE shall complete the "Monthly Progress Report" and/or the "Quarterly Expenditure Report". The Monthly Progress and Quarterly Expenditure Reports are attached to this FA as Attachments D-1 and D-2 in accordance with Attachment D – Project Reporting and Expenditure Guidelines.
9. **Attachment E**, the "FTIP PROJECT SHEET (PDF)", is attached as Attachment E and is required to ensure that the Project is programmed correctly in the most up-to-date FTIP document. The FTIP PROJECT SHEET (PDF) can be found in ProgramMetro FTIP database under the reports section at <http://program.metro.net>. All projects that receive funding through Measure R must be programmed into the FTIP, which includes locally funded regionally significant projects for information and air quality modeling purposes. GRANTEE shall review the Project in ProgramMetro each year and update or correct the Project information as necessary during a scheduled FTIP amendment or adoption. GRANTEE will be notified of amendments and adoptions to the FTIP via e-mail. Changes to the FTIP through ProgramMetro should be made as soon as possible after GRANTEE is aware of any changes to the Project, but no later than October 1 of the year the change or update is effective. Should GRANTEE fail to meet this date, it may affect GRANTEE's ability to access funding, delay the Project and may ultimately result in the Funds being lapsed.
10. GRANTEE shall comply with the "Special Grant Conditions" attached as **Attachment G**, if any.
11. No changes to the (i) Grant amount, (ii) Project Funding, (iii) the Scope of Work (except as provided herein), (iv) Final milestone date or (v) Special Grant Conditions, shall be allowed

without a written amendment to this FA, approved and signed by the LACMTA Chief Executive Officer or his/her designee and GRANTEE. Modifications that do not materially affect the terms of this FA, such as redistributing Funds among existing budget line items or non-material schedule changes must be formally requested by GRANTEE and approved by LACMTA in writing. Non-material changes are those changes which do not affect the grant amount or its schedule, Project Funding, Financial Plan, or the Scope of Work, including the Work schedule.

12. LACMTA's Address:

Los Angeles County Metropolitan Transportation Authority
One Gateway Plaza
Los Angeles, CA 90012
Attention: Ed Alegre
LACMTA PROJECT MANAGER
MAIL STOP 99-22-9
PHONE (213) 922-7902
E-MAIL alegree@metro.net

13. GRANTEE's Address:

Port of Los Angeles
425 South Palos Verdes Street
San Pedro, CA 90731
Attention: Kerry Cartwright
PHONE (310) 732-7702
E-MAIL ADDRESS kcartwright@portla.org

14. LACMTA anticipates it may need to avail itself of lower cost bonds or other debt, the interest on which is tax exempt for federal tax purposes and/or Build America Bonds as defined in the American Reinvestment and Recovery Act of 2009 or similar types of bonds (collectively, the "Bonds") to provide at least a portion of its funding commitments under this Agreement to GRANTEE. GRANTEE shall ensure that the expenditure of the Funds disbursed to GRANTEE does not jeopardize the tax-exemption of the interest, the Federal subsidy payment or the tax credit, as applicable, as specified in the Bond Requirements attached as **Attachment F** to this Agreement. GRANTEE agrees to provide LACMTA with progress reports, expenditure documentation, and any other documentation as reasonably requested by LACMTA and necessary for LACMTA to fulfill its responsibilities as the grantee or administrator or bond issuer of the Funds. With regard to LACMTA debt financing to provide any portion of the Funds, GRANTEE shall take all reasonable actions as may be requested of it by LACMTA's Project Manager for the Project, to assist LACMTA in demonstrating and maintaining over time, compliance with the relevant sections of the Federal Tax Code to maintain such bonds tax status.

PART II
GENERAL TERMS OF THE FA

1. **TERM**

The term of this FA shall commence on the Effective Date of this FA, and shall terminate upon the occurrence of all of the following, unless terminated earlier as provided herein: (i) the agreed upon Scope of Work has been completed; (ii) all LACMTA audit and reporting requirements have been satisfied; and (iii) the final disbursement of the Funds has been made to GRANTEE. All eligible Project expenses as defined in the Reporting and Expenditure Guidelines (Attachment D), incurred after the FA Effective Date shall be reimbursed in accordance with the terms and conditions of this FA unless otherwise agreed to by the parties in writing.

2. **SUSPENSION OR TERMINATION**

Should LACMTA determine there are insufficient Measure R Funds available for the Project, LACMTA may suspend or terminate this FA by giving written notice to GRANTEE at least thirty (30) days in advance of the effective date of such suspension or termination. If a Project is suspended or terminated pursuant to this section, LACMTA will not reimburse GRANTEE any costs incurred after that suspension or termination date, except those costs necessary (i) to return any facilities modified by the Project construction to a safe and operable state; and (ii) to suspend or terminate the construction contractor's control over the Project. LACMTA's share of these costs will be consistent with the established funding percentages outlined in this FA.

3. **INVOICE BY GRANTEE**

Unless otherwise stated in this FA, the Monthly Progress Report or the Quarterly Expenditure Report, with supporting documentation of expenses, Project progress and other documents as required, which has been pre-approved by LACMTA, all as described in Part II, Section 6.1 of this FA, shall satisfy LACMTA invoicing requirements. Grantee shall only submit for payment the LACMTA pre-approved Monthly Progress Report or Quarterly Expenditure Report Packets to the LACMTA Project Manager at the email address shown in Part I and to LACMTA Account Payable Department as shown below.

Submit invoice with supporting documentation to:
ACCOUNTSPAYABLE@METRO.NET (preferable)

or

mail to:

**Los Angeles County Metropolitan Transportation Authority
Accounts Payable**

P. O. Box 512296

Los Angeles, CA 90051-0296

All invoice material must contain the following information:

Re: LACMTA Project ID#MR306.40 and FA# FA920000000MR30640

LACMTA Project Manager: Ed Alegre, Mail Stop 99-22-9

4. USE OF FUNDS

4.1 GRANTEE shall utilize the Funds to complete the Project as described in the Scope of Work and in accordance with the Reporting and Expenditure Guidelines and the specifications for use for the transportation purposes described in the Ordinance.

4.2 Attachment C shall constitute the agreed upon Scope of Work between LACMTA and GRANTEE for the Project. The Funds, as granted under this FA, can only be used towards the completion of the Scope of Work detailed in Attachment C.

4.3 GRANTEE shall not use the Funds to substitute for any other funds or projects not specified in this FA. Further, GRANTEE shall not use the Funds for any expenses or activities above and beyond the approved Scope of Work (Attachment C) without an amendment to the FA approved and signed by the LACMTA Chief Executive Officer or his Designee. To the extent LACMTA provides GRANTEE with bond or commercial paper proceeds, such Funds may not be used to reimburse for any costs that jeopardize the tax exempt nature of such financings as reasonably determined by LACMTA and its bond counsel.

4.4 GRANTEE must use the Funds in the most cost-effective manner. If GRANTEE intends to use a consultant or contractor to implement all or part of the Project, LACMTA requires that such activities be procured in accordance with GRANTEE's contracting procedures and consistent with State law as appropriate. GRANTEE will also use the Funds in the most cost-effective manner when the Funds are used to pay "in-house" staff time. GRANTEE staff or consultant with project oversight roles cannot award work to companies in which they have a financial or personal interest. This effective use of funds provision will be verified by LACMTA through on-going Project monitoring and through any LACMTA interim and final audits.

4.5 If a facility, equipment (such as computer hardware or software), vehicle or property, purchased or leased using the Funds, ceases to be used for the proper use as originally stated in the Scope of Work, or the Project is discontinued, any Funds expended for that purpose must be returned to LACMTA as follows: GRANTEE shall be required to repay the Funds in proportion to the useful life remaining and in an equal proportion of the grant to GRANTEE Funding Commitment ratio.

5. REIMBURSEMENT OF FUNDS

Funds will be released on a reimbursement basis in accordance with invoices submitted in support of the Monthly Progress and Quarterly Expenditure Reports. LACMTA will make all disbursements electronically unless an exception is requested in writing. Reimbursements via Automated Clearing House (ACH) will be made at no cost to GRANTEE. GRANTEE must complete the ACH form and submit such form to LACMTA before grant payments can be made. ACH Request Forms can be found at www.metro.net/projects_studies/call_projects/ref_docs.htm. GRANTEE must provide detailed supporting documentation with its Monthly Progress and Quarterly Expenditure Reports.

GRANTEE Funding Commitment, if any, must be spent in direct proportion to the Funds with each quarter's payment.

6. REPORTING AND AUDIT REQUIREMENTS/PAYMENT ADJUSTMENTS

6.1 GRANTEE shall submit the draft of Monthly Progress Report (Attachment D-1) within seven (7) days from the last day of each month, if required, and submit the draft of Quarterly Expenditure Report (Attachment D-2) within sixty (60) days after the close of each quarter on the last day of the months November, February, May and August to the LACMTA Project Manager for review and pre-approval of the applicable report. LACMTA shall review and respond in writing to the draft Monthly Progress and Quarterly Expenditure Reports within five (5) business days from receipt. Grantee shall submit the LACMTA pre-approved Monthly Progress Report and Quarterly Expenditure Report no later than five (5) days after receipt of LACMTA's written approval. Should GRANTEE fail to submit either the draft or pre-approved reports within five (5) days of the due date and/or submit incomplete reports, LACMTA will not reimburse GRANTEE until the completed required reports are received, reviewed, and approved. The Monthly Progress and the Quarterly Expenditure Reports shall include all appropriate documentation (such as contractor invoices, timesheets, receipts, etc.), and any changes to interim milestone dates that do not impact the final milestone date. All supporting documents must include a clear justification and explanation of their relevance to the Project. If no activity has occurred during a particular quarter, GRANTEE will still be required to submit the Monthly Progress and Quarterly Expenditure Reports indicating no dollars were expended that quarter. If a request for reimbursement exceeds \$500,000 in a single month, then GRANTEE can submit such an invoice once per month with supporting documentation.

6.2 LACMTA, and/or its designee, shall have the right to conduct audits of the Project as deemed appropriate, such as financial and compliance audits, interim audits, pre-award audits, performance audits and final audits. LACMTA will commence a final audit within six months of receipt of acceptable final invoice, provided the Project is ready for final audit (meaning all costs and charges have been paid by GRANTEE and invoiced to LACMTA, and such costs, charges and invoices are properly documented and summarized in the accounting records to enable an audit without further explanation or summarization including actual indirect rates for the period covered by the FA period under review). GRANTEE agrees to establish and maintain proper accounting procedures and cash management records and documents in accordance with Generally Accepted Accounting Principles (GAAP). GRANTEE shall reimburse LACMTA for any expenditure not in compliance with the Scope of Work and/or not in compliance with other terms and conditions of this FA. The allowability of costs for GRANTEE's own expenditures submitted to LACMTA for this Project shall be in compliance with Office of Management and Budget (OMB) Circular A-87. The allowability of costs for GRANTEE's contractors, consultants and suppliers expenditures submitted to LACMTA through GRANTEE's Monthly Progress Reports and Quarterly Expenditures shall be in compliance with OMB Circular A-87 or Federal Acquisition Regulation (FAR) Subpart 31 and 2 CFR Subtitle A, Chapter II, Part 225 (whichever is applicable). Findings of the LACMTA audit are final. When LACMTA audit findings require

GRANTEE to return monies to LACMTA, GRANTEE agrees to return the monies within thirty (30) days after the final audit is sent to GRANTEE.

6.3 GRANTEE's records shall include, without limitation, accounting records, written policies and procedures, contract files, original estimates, correspondence, change order files (including documentation covering negotiated settlements), invoices, and any other supporting evidence deemed necessary by LACMTA to substantiate charges related to the Project (all collectively referred to as "records"). Such records shall be open to inspection and subject to audit and reproduction by LACMTA auditors or authorized representatives to the extent deemed necessary by LACMTA to adequately permit evaluation of expended costs. Such records subject to audit shall also include, without limitation, those records deemed necessary by LACMTA to evaluate and verify, direct and indirect costs, (including overhead allocations) as they may apply to costs associated with the Project. These records must be retained by GRANTEE for three years following final payment under this Agreement. Payment of retention amounts shall not occur until after the LACMTA's final audit is completed.

6.4 GRANTEE shall cause all contractors to comply with the requirements of Part II, Section 6, paragraphs 6.2 and 6.3 above. GRANTEE shall cause all contractors to cooperate fully in furnishing or in making available to LACMTA all records deemed necessary by LACMTA auditors or authorized representatives related to the Project.

6.5 LACMTA or any of its duly authorized representatives, upon reasonable written notice, shall be afforded access to all of the records of GRANTEE and its contractors related to the Project, and shall be allowed to interview any employee of GRANTEE and its contractors through final payment to the extent reasonably practicable.

6.6 LACMTA or any of its duly authorized representatives, upon reasonable written notice, shall have access to the offices of GRANTEE and its contractors, shall have access to all necessary records, including reproduction, at no charge to LACMTA, and shall be provided adequate and appropriate work space in order to conduct audits in compliance with the terms and conditions of this FA.

6.7 When business travel associated with the Project requires use of a vehicle, the mileage incurred shall be reimbursed at the mileage rates set by the Internal Revenue Service, as indicated in the United States General Services Administration Federal Travel Regulation, Privately Owned Vehicle Reimbursement Rates.

6.8 GRANTEE shall be responsible for ensuring all contractors/ subcontractors for the Project comply with the terms of the Ordinance. GRANTEE shall cooperate with LACMTA Audit Department such that LACMTA can meet its obligations under the Ordinance.

6.9 GRANTEE shall certify each invoice by reviewing all subcontractor costs and maintaining internal control to ensure that all expenditures are allocable, allowable

and reasonable and in accordance with OMB A-87 or FAR subpart 31 and 2 CFR Subtitle A, Chapter II, part 225, (whichever is applicable) and the terms and conditions of this FA.

6.10 GRANTEE shall also certify final costs of the Project to ensure all costs are in compliance with OMB A-87 or FAR subpart 31 and 2 CFR Subtitle A, Chapter II, part 225, (whichever is applicable) and the terms and conditions of this FA.

6.11 In addition to LACMTA's other remedies as provided in this FA, LACMTA may withhold the Funds if the LACMTA audit has determined that GRANTEE failed to comply with the Scope of Work (such as misusing Funds or failure to return Funds owed to LACMTA in accordance with LACMTA audit findings) and /or is severely out of compliance with other terms and conditions as defined by this FA, including the access to records provisions of Part II, Section 6.

7. GRANT

This is a one time only grant of the Measure R Funds subject to the terms and conditions agreed to herein. This grant does not imply nor obligate any future funding commitment on the part of LACMTA.

8. SOURCES AND DISPOSITION OF FUNDS

8.1 The obligation for LACMTA to grant the Funds for the Project is subject to sufficient Funds being made available for the Project by the LACMTA Board of Directors. If such Funds are not made available as anticipated from Measure R Program revenues, LACMTA will have the right to adjust the cash flow accordingly until such funds become available. LACMTA shall have no obligation to provide any other funds for the Project, unless otherwise agreed to in writing by LACMTA.

8.2 GRANTEE shall fully fund and contribute the Grantee Funding Commitment, if any is identified in the Project Funding (Attachment A), towards the cost of the Project. If the Funds identified in Attachment A are insufficient to complete the Project, GRANTEE may request additional Measure R funds from its sub-region earmark pending support of the sub-region's Governing Board. A particular sub-region's Measure R funds are limited to the amount specified in the Ordinance and is still subject to approval of the LACMTA Board. Nothing in this FA shall obligate, or be construed to obligate the LACMTA Board to approve such request for additional funds. If the Funds are still insufficient to complete the Project, GRANTEE agrees to secure and provide such additional non-LACMTA programmed funds necessary to complete the Project.

8.3 GRANTEE shall be responsible for any and all cost overruns for the Project pursuant to Section 8.2.

8.4 GRANTEE shall be eligible for the Funds up to the grant amount specified in Part I, Section 2 of this FA subject to the terms and conditions contained herein. Any Funds expended by GRANTEE prior to the Effective Date of this FA shall not be

reimbursed nor shall they be credited toward the GRANTEE Funding Commitment requirement, without the prior written consent of LACMTA. GRANTEE Funding Commitment dollars expended prior to the year the Funds are awarded shall be spent at GRANTEE's own risk.

8.5 If GRANTEE receives outside funding for the Project in addition to the Funds identified in the Project Funding and the Expenditure Plan at the time this grant was awarded, this FA shall be amended to reflect such additional funding. If, at the time of final invoice or voucher, funding for the Project (including the Funds, GRANTEE Funding Commitment, and any additional funding) exceeds the actual Project costs, then the cost savings shall be applied in the same proportion as the sources of funds from each party to this FA as specified in the Project Funding and both the Funds and GRANTEE Funding Commitment required for the Project shall be reduced accordingly. LACMTA shall have the right to use any cost savings associated with the Funds at its sole discretion, including, without limitation, programming the unused Funds to another project or to another grantee. If, at the time of final voucher, it is determined that GRANTEE has received Funds in excess of what GRANTEE should have received for the Project, GRANTEE shall return such overage to LACMTA within 30 days from final voucher.

9. TIMELY USE OF FUNDS / REPROGRAMMING OF FUNDS

9.1 GRANTEE must demonstrate timely use of the Funds by:

- (i) Executing this FA within **ninety (90) days** of receiving formal transmittal of the FA from LACMTA, or by December 31 of the first Fiscal Year in which the Funds are programmed, whichever date is later; and
- (ii) Beginning Project Design, Preliminary Engineering-(PE) within **six (6) months** from completion of environmental clearance, if appropriate; and.
- (iii) Executing Contracts for Construction or Capital purchase within **twelve (12) months** from the date of completion of design; and
- (iv) Delivering Work in accordance with schedule; changes to the schedule will require an Amendment to Attachment C to reflect updated milestone dates. Meeting the Project milestone due dates as agreed upon by the LACMTA and GRANTEE in Attachment C (Scope of Work) of this FA; and
- (v) Submitting the Monthly Progress and Quarterly Expenditure Reports as described in Part II, Section 6.1 of this FA; and
- (vi) Expending the Funds granted under this FA for allowable costs within **five years or 60 months** from July 1 of the Fiscal Year in which the Funds are programmed, unless otherwise stated in this FA. All Funds programmed for FY 2016-17 are subject to lapse by June 30, 2021.

9.2 In the event that the timely use of the Funds is not demonstrated as described in Part II, Section 9.1 of this FA, the Project will be reevaluated by LACMTA as part of its annual Recertification/Deobligation process and the Funds may be reprogrammed to another project by the LACMTA Board of Directors in accordance with the Ordinance. In the event that all the Funds are reprogrammed, this FA shall automatically terminate.

10. DEFAULT

A Default under this FA is defined as any one or more of the following: (i) GRANTEE fails to comply with the terms and conditions contained herein; or (ii) GRANTEE fails to perform satisfactorily or makes a material change, as determined by LACMTA at its sole discretion, to the Expenditure Plan, the Scope of Work, or the Project Funding without LACMTA's prior written consent or approval as provided herein.

11. REMEDIES

11.1 In the event of a Default by GRANTEE, LACMTA shall provide written notice of such Default to GRANTEE with a 30-day period to cure the Default. In the event GRANTEE fails to cure the Default, or commit to cure the Default and commence the same within such 30-day period to the satisfaction of LACMTA, LACMTA shall have the following remedies: (i) LACMTA may terminate this FA; (ii) LACMTA may make no further disbursements of Funds to GRANTEE; and/or (iii) LACMTA may recover from GRANTEE any Funds disbursed to GRANTEE as allowed by law or in equity.

11.2 Effective upon receipt of written notice of termination from LACMTA, GRANTEE shall not undertake any new work or obligation with respect to this FA unless so directed by LACMTA in writing. Any Funds expended after termination shall be the sole responsibility of GRANTEE.

11.3 The remedies described herein are non-exclusive. LACMTA shall have the right to enforce any and all rights and remedies herein or which may be now or hereafter available at law or in equity.

12. COMMUNICATIONS

12.1 GRANTEE shall ensure that all Communication Materials contain recognition of LACMTA's contribution to the Project as more particularly set forth in "Funding Agreement Communications Materials Guidelines" available on line or from the LACMTA Project Manager. Please check with the LACMTA Project Manager for the web address. The Funding Agreement Communications Materials Guidelines may be changed from time to time during the course of this Agreement. GRANTEE shall be responsible for complying with the latest Funding Agreement Communications Materials Guidelines during the term of this Agreement, unless otherwise specifically authorized in writing by the LACMTA Chief Communications Officer.

12.2 For purposes of this Agreement, "Communications Materials" include, but are not limited to, press events, public and external newsletters, printed materials, advertising, websites radio and public service announcements, electronic media, and construction site signage. A more detailed definition of "Communications Materials" is found in the Funding Agreement Communications Materials Guidelines.

12.3 The Metro logo is a trademarked item that shall be reproduced and displayed in accordance with specific graphic guidelines. These guidelines and logo files including scalable vector files will be available through the LACMTA Project Manager.

12.4 GRANTEE shall ensure that any subcontractor, including, but not limited to, public relations, public affairs, and/or marketing firms hired to produce Project Communications Materials for public and external purposes will comply with the requirements contained in this Section.

12.5 The LACMTA Project Manager shall be responsible for monitoring GRANTEE compliance with the terms and conditions of this Section. GRANTEE'S failure to comply with the terms of this Section shall be deemed a default hereunder and LACMTA shall have all rights and remedies set forth herein.

13. OTHER TERMS AND CONDITIONS

13.1 This FA, along with its Attachments, constitutes the entire understanding between the parties, with respect to the subject matter herein. The FA shall not be amended, nor any provisions or breach hereof waived, except in writing signed by the parties who agreed to the original FA or the same level of authority. Adoption of revisions or supplements to the Guidelines shall cause such revisions or supplements to become incorporated automatically into this Agreement as though fully set forth herein.

13.2 GRANTEE is obligated to continue using the Project dedicated to the public transportation purposes for which the Project was initially approved. The Project right-of-way, the Project facilities constructed or reconstructed on the Project site, and/or Project property purchased, excluding construction easements and excess property (whose proportionate proceeds shall be distributed in an equal proportion of the grant to GRANTEE Funding Commitment ratio), shall remain dedicated to public transportation use in the same proportion and scope and to the same extent as described in this FA. Equipment acquired as part of the Project, including office equipment, vehicles, shall be dedicated to that use for their full economic life cycle, including any extensions of that life cycle achieved by reconstruction, rehabilitation, or enhancements.

13.3 In the event that there is any legal court (e.g., Superior Court of the State of California, County of Los Angeles, or the U.S. District Court for the Central District of California) proceeding between the parties to enforce or interpret this FA, to protect or establish any rights or remedies hereunder, the prevailing party shall be entitled to its costs and expenses, including reasonable attorney's fees.

13.4 Neither LACMTA nor any officer or employee thereof shall be responsible for any damage or liability occurring by reason of anything done or committed to be done by GRANTEE under or in connection with any work performed by and or service provided by GRANTEE, its officers, agents, employees, contractors and subcontractors under this FA. GRANTEE shall fully indemnify, defend and hold LACMTA and its subsidiaries, and its officers, agents and employees harmless from and against any liability and expenses, including without limitation, defense costs, any costs or liability on account of bodily injury, death or personal injury of any person or for damage to or loss of risk of property, any environmental obligation, any legal fees and any claims for damages of any nature whatsoever arising out of the Project, including without limitation: (i) use of the Funds by GRANTEE, or its officers, agents, employees, contractors or subcontractors; (ii) breach of GRANTEE's obligations under this FA; or (iii) any act or omission of GRANTEE, or its officers, agents, employees, contractors or subcontractors in the performance of the work or the provision of the services, in connection with the Project including, without limitation, the Scope of Work, described in this FA.

13.5 Neither party hereto shall be considered in default in the performance of its obligation hereunder to the extent that the performance of any such obligation is prevented or delayed by unforeseen causes including acts of God, acts of a public enemy, and government acts beyond the control and without fault or negligence of the affected party. Each party hereto shall give notice promptly to the other of the nature and extent of any such circumstances claimed to delay, hinder, or prevent performance of any obligations under this FA.

13.6 GRANTEE shall comply with and insure that work performed under this FA is done in compliance with Generally Accepted Accounting Principles (GAAP), all applicable provisions of federal, state, and local laws, statutes, ordinances, rules, regulations, and procedural requirements including Federal Acquisition Regulations (FAR), and the applicable requirements and regulations of LACMTA. GRANTEE acknowledges responsibility for obtaining copies of and complying with the terms of the most recent federal, state, or local laws and regulations, and LACMTA requirements including any amendments thereto.

13.7 GRANTEE agrees that the applicable requirements of this FA shall be included in every contract entered into by GRANTEE or its contractors relating to work performed under this FA and LACMTA shall have the right to review and audit such contracts.

13.8 GRANTEE shall not assign this FA, or any part thereof, without prior approval of the LACMTA Chief Executive Officer or his designee, and any assignment without said consent shall be void and unenforceable.

13.9 This FA shall be governed by California law. If any provision of this FA is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions shall nevertheless continue in full force without being impaired or invalidated in any way.

13.10 The covenants and agreements of this FA shall inure to the benefit of, and shall be binding upon, each of the parties and their respective successors and assigns.

13.11 Implementation of any Intelligent Transportation Systems (ITS) project shall be consistent with the Regional ITS Architecture. ITS projects must comply with the LACMTA Countywide ITS Policy and Procedures adopted by the LACMTA Board of Directors including the submittal of a completed, signed self-certification form. For the ITS policy and form, see www.metro.net/projects_studies/call_projects/other_resources.htm.

13.12 If any parking facilities are designed and/or constructed using the Funds, GRANTEE shall coordinate with LACMTA parking program staff (see www.metro.net for staff listing) in the planning, design and management of the facility and shall ensure that its implementation is consistent with the LACMTA adopted parking policy. For the parking policy, see www.metro.net/projects_studies/call_projects/other_resources.htm.

13.13 GRANTEE will advise LACMTA prior to any key Project staffing changes.

13.14 Notice will be given to the parties at the address specified in Part I, unless otherwise notified in writing of change of address.

13.15 GRANTEE, in the performance of the work described in this FA, is not a contractor nor an agent or employee of LACMTA. GRANTEE attests to no organizational or personal conflicts of interest and agrees to notify LACMTA immediately in the event that a conflict, or the appearance thereof, arises. GRANTEE shall not represent itself as an agent or employee of LACMTA and shall have no powers to bind LACMTA in contract or otherwise.

ATTACHMENT A -PROJECT FUNDING

Measure R Program - Funding Agreement Projects - FA.920000000MR30640

Project Title: I-710 Eco-FRATIS Drayage Truck Efficiency Project Project#: MR306.40

PROGRAMMED BUDGET - SOURCES OF FUNDS

SOURCES OF FUNDS	Prior Years	FY2014-15	FY2015-16	FY2016-17	FY 2017-18	FY2018-19	Total Budget	% of Budget
LACMTA PROGRAMMED FUNDING								
MEASURE R FUNDS								
LACMTA PROGRAMMED FUNDS BY YEAR SUBTOTAL	\$ -			\$ 240			\$ 240	17%
OTHER SOURCES OF FUNDING:								
LOCAL:							\$ -	0%
STATE:				\$ 970			\$ 970	67%
FEDERAL:							\$ -	0%
PRIVATE OR OTHER:				\$ 243			\$ 243	17%
OTHER FUNDING SUBTOTAL	\$ -	\$ -	\$ -	\$ 1,213	\$ -	\$ -	\$ 1,213	83%
TOTAL PROJECT FUNDS	\$ -	\$ -	\$ -	\$ 1,453	\$ -	\$ -	\$ 1,453	100%

Use Actual \$\$\$

04.01.15

ATTACHMENT B
MEASURE R EXPENDITURE PLAN GUIDELINES
PROJECT DEVELOPMENT AND RIGHT OF WAY

State Law Requires All Measure R Project and Program Sponsors to Submit an Expenditure Plan

To be eligible to receive Measure R revenues, an agency sponsoring a capital project or program must by state law (AB 2321) submit an expenditure plan that is acceptable to the Los Angeles County Metropolitan Transportation Authority (LACMTA). Pursuant to this law, LACMTA cannot release Measure R funds to capital project or program sponsors until an expenditure plan containing the following elements is submitted, reviewed and deemed satisfactory by LACMTA. LACMTA staff will request that an expenditure plan be submitted before making a recommendation to the LACMTA Board to program funds to that project:

- The estimated total cost for each project and program and/or each project or program activity;
- Funds other than Measure R that the project or program sponsor anticipates will be expended on the projects and programs and/or each project or program activity;
- The schedule during which the project sponsor anticipates funds will be available for each project and program and/or each project or program activity; and,
- The expected completion dates for each project and program and/or project or program activity.

Each of the above elements must be provided in enough detail to determine consistency with Measure R, the Long Range Transportation Plan for Los Angeles County, and the Los Angeles County Transportation Improvement Program (also a statutorily mandated function), as follows:

- Project or program scope of work, including sufficient information to determine funding eligibility, including, but not limited to, the anticipated proportional use of current rail rights-of-way, state highways, and below-ground subways versus any other rights-of-way or above-ground work;
- A current-year cost estimate breakdown of the major sub-elements of the project such as overhead, environmental and permit work, design and engineering, right-of-way, construction/installation (including maintenance facilities, rail yard, equipment and other major components), construction/installation support, interest costs, rolling stock, and other supporting components;
- Any extraordinary project cost escalation issues, such as extraordinary commodity, right-of-way, surety, energy costs, etc.;
- A specific and accurate description of the source, commitment, and anticipated annual availability of any federal, state, local, or private funding identified for the project if applicable including a 3% local funding contribution to rail projects if indicated in Measure R and necessary to meet project expenses, and if the source funds are in current or year-of-expenditure dollars;

- An annual schedule, in current dollars, of anticipated costs by the cost estimate categories described above; and;
- The expected completion by month and year of project or program completion.

Below is an excerpt of AB 2321 (2008, Feuer), the state legislation that requires the expenditure plan.

What AB 2321 (2008, Feuer) Says About the Expenditure Plan:

Section b (3) B

(f) Prior to submitting the ordinance to the voters, the MTA shall adopt an expenditure plan for the net revenues derived from the tax. The expenditure plan shall include, in addition to other projects and programs identified by the MTA, the specified projects and programs listed in paragraph (3) of subdivision (b), the estimated total cost for each project and program, funds other than the tax revenues that the MTA anticipates will be expended on the projects and programs, and the schedule during which the MTA anticipates funds will be available for each project and program. The MTA shall also identify in its expenditure plan the expected completion dates for each project described in subparagraph (A) of paragraph (3) of subdivision (b). To be eligible to receive revenues derived from the tax, an agency sponsoring a capital project or capital program shall submit to the MTA an expenditure plan for its project or program containing the same elements as the expenditure plan that MTA is required by this subdivision to prepare.

(k) No later than 365 days prior to the adoption of an amendment described in paragraph (1) to an expenditure plan adopted pursuant to subdivision (f), including, but not limited to, the expenditure plan adopted by the MTA board as "Attachment A" in Ordinance #08-01 adopted by the board on July 24, 2008, and in addition to any other notice requirements in the proposing ordinance, the board shall notify the Members of the Legislature representing the County of Los Angeles of all of the following:

(1) A description of the proposed amendments to the adopted expenditure plan that would do any of the following:

(A) Affect the amount of net revenues derived from the tax imposed pursuant to this act that is proposed to be expended on a capital project or projects identified in the adopted expenditure plan.

(B) Affect the schedule for the availability of funds proposed to be expended on a capital project or projects identified in the adopted expenditure plan.

(C) Affect the schedule for the estimated or expected completion date of a capital project or projects identified in the adopted expenditure plan.

(2) The reason for the proposed amendment.

(3) The estimated impact the proposed amendment will have on the schedule, cost, scope, or timely availability of funding for the capital project or projects contained in the adopted expenditure plan.

ATTACHMENT B-1 - EXPENDITURE PLAN COST & CASH FLOW BUDGET

Measure R Program - Funding Agreement Projects - FA.920000000MR30640

Project Title: Port of Los Angeles Eco-FRATIS Drayage Truck Efficiency Project

Project#:MR306.40

PROGRAMMED SOURCES OF FUNDS

SOURCES OF FUNDS	FY 2016-17 Qtr 1	FY 2016-17 Qtr 2	FY 2016-17 Qtr 3	FY 2016-17 Qtr 4	FY 2017-18 Qtr 1	FY 2017-18 Qtr 2	FY 2017-18 Qtr 3	FY 2017-18 Qtr 4	TOTAL BUDGET
LACMTA PROGRAMMED FUNDS:									
MEASURE R FUNDS:									
PAED									\$0
PS&E/Construction/Material Procurement (ITS Integration)			\$20	\$40	\$60	\$50	\$30	\$20	\$220
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total MEASURE R	\$0	\$0	\$20	\$40	\$60	\$50	\$30	\$20	\$220
PROP C 25%									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total PROP C 25%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUM PROG LACMTA FUNDS:	\$0	\$0	\$20	\$40	\$60	\$50	\$30	\$20	\$220
OTHER NON LACMTA FUNDING:									
LOCAL: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total LOCAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
STATE: ?									
PAED									\$0
PS&E/Construction/Material Procurement (ITS Integration)			\$100	\$170	\$175	\$175	\$175	\$125	\$920
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total STATE	\$0	\$0	\$100	\$170	\$175	\$175	\$175	\$125	\$920
FEDERAL: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total FEDERAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PRIVATE: ?									
PAED									\$0
PS&E/Construction/Material Procurement (ITS Integration)			\$20	\$40	\$60	\$53	\$30	\$20	\$223
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total PRIVATE	\$0	\$0	\$20	\$40	\$60	\$53	\$30	\$20	\$223
SUM NON-LACMTA FUNDS :	\$0	\$0	\$120	\$210	\$235	\$228	\$205	\$145	\$1,143
PROJECT FUNDING FY16-17 and FY17-18	\$0	\$0	\$140	\$250	\$295	\$278	\$235	\$165	\$1,363

ATTACHMENT B-1 - EXPENDITURE PLAN COST & CASH FLOW BUDGET

Measure R Program - Funding Agreement Projects - FA.920000000MR30640

Project Title: Port of Los Angeles Eco-FRATIS Drayage Truck Efficiency Project

Project#:MR306.40

PROGRAMMED SOURCES OF FUNDS

SOURCES OF FUNDS	FY 2018-19 Qtr 1	FY 2018-19 Qtr 2	FY 2018-19 Qtr 3	FY 2018-19 Qtr 4	FY 2019-20 Qtr 1	FY 2019-20 Qtr 2	FY 2019-20 Qtr 3	FY 2019-20 Qtr 4	TOTAL BUDGET
LACMTA PROGRAMMED FUNDS:									
MEASURE R FUNDS:									
PAED									\$0
PS&E	\$5	\$5	\$5	\$5					\$20
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total MEASURE R	\$5	\$5	\$5	\$5	\$0	\$0	\$0	\$0	\$20
PROP C 25%									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total PROP C 25%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUM PROG LACMTA FUNDS:	\$5	\$5	\$5	\$5	\$0	\$0	\$0	\$0	\$20
OTHER NON LACMTA FUNDING:									
LOCAL: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total LOCAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
STATE: ?									
PAED									\$0
PS&E	\$20	\$10	\$10	\$10					\$50
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total STATE	\$20	\$10	\$10	\$10	\$0	\$0	\$0	\$0	\$50
FEDERAL: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total FEDERAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PRIVATE: ?									
PAED									\$0
PS&E	\$5	\$5	\$5	\$5					\$20
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total PRIVATE	\$5	\$5	\$5	\$5	\$0	\$0	\$0	\$0	\$20
SUM NON-LACMTA FUNDS :	\$25	\$15	\$15	\$15	\$0	\$0	\$0	\$0	\$70
PROJECT FUNDING FY18-19 and FY19-20	\$30	\$20	\$20	\$20	\$0	\$0	\$0	\$0	\$90

ATTACHMENT B-1 - EXPENDITURE PLAN COST & CASH FLOW BUDGET

Measure R Program - Funding Agreement Projects - FA.920000000MR30640

Project Title: Port of Los Angeles Eco-FRATIS Drayage Truck Efficiency Project

Project#:MR306.40

PROGRAMMED SOURCES OF FUNDS

SOURCES OF FUNDS	FY Qtr 1	FY Qtr 2	FY Qtr 3	FY Qtr 4	FY Qtr 1	FY Qtr 2	FY Qtr 3	FY Qtr 4	TOTAL BUDGET
LACMTA PROGRAMMED FUNDS:									
MEASURE R FUNDS:									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total MEASURE R	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PROP C 25%									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total PROP C 25%	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUM PROG LACMTA FUNDS:	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
OTHER NON LACMTA FUNDING:									
LOCAL: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total LOCAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
STATE: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total STATE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
FEDERAL: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total FEDERAL	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PRIVATE: ?									
PAED									\$0
PS&E									\$0
RW Support									\$0
Const. Support									\$0
RW									\$0
Construction									\$0
Total PRIVATE	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUM NON-LACMTA FUNDS :	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PROJECT FUNDING FY	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
SUMMARY OF ALL FUNDS									
PAED	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PS&E	\$30	\$20	\$160	\$270	\$295	\$278	\$235	\$165	\$1,453
RW Support	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Const. Support	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
RW	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Construction	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL MILESTONES	\$30	\$20	\$160	\$270	\$295	\$278	\$235	\$165	\$1,453
SUM PROG LACMTA FUNDS	\$5	\$5	\$25	\$45	\$60	\$50	\$30	\$20	\$2
SUM NON-LACMTA FUNDS	\$25	\$15	\$135	\$225	\$235	\$228	\$205	\$145	\$1,21
TOTAL PROJECT FUNDING	\$30	\$20	\$160	\$270	\$295	\$278	\$235	\$165	\$1,453

ATTACHMENT C SCOPE OF WORK

PROJECT TITLE: I-710 Eco-Freight Advanced Traveler Information System (Eco-FRATIS) Drayage Truck Efficiency Project

PROJECT LOCATION:

The project is located in the cities and unincorporated County of Los Angeles adjacent to the I-710 freeway within the Gateway Cities sub-region.

PROJECT LIMITS:

The project area is bounded by the Santa Monica Freeway (Interstate 10, or I-10) and Pomona Freeway (State Route 60, or SR-60) to the north, Interstate 605 (I-605) and the San Gabriel River to the east, Vermont Avenue to the west, and the Pacific Coast to the south. This area includes the following freight and goods movement facilities of significance: POLA, POLB and the Long Beach Freeway (Interstate 710, or I-710) from its southern terminus near the Port of Long Beach (CA post mile 4.96) to the City of Commerce rail-yards 18 miles to the north (CA post mile 23.19). The project boundaries encompass portions of the City of Los Angeles, City of Carson, Unincorporated Los Angeles County, and the Gateway Cities Council of Governments (GCCOG) sub-region.

NEXUS TO HIGHWAY OPERATION, DEFINITION/PROJECT PURPOSE:

The purpose of this project is to improve the movement of people and goods, congestion, and air quality to the I-710 freeway, and adjacent arterials. Also, this project is to demonstrate advanced freight transportation information systems for drayage trucks. The goals of the ITS is to provide: 1) reduced truck fuel consumption greenhouse gas, and criteria pollutant emissions to/from marine terminals by using the most eco-friendly truck routes; 2) increased marine terminal throughput by optimizing truck dispatch time and arrival at the marine terminal; and 3) increased truck power productivity and number of turns per truck by optimizing drayage routes and sequence.

PROJECT BACKGROUND:

The ITS entails integration of the following systems for 100 existing drayage trucks serving the Ports of Los Angeles and Long Beach (POLA/POLB); the United States Department of Transportation (USDOT) Los Angeles Freight Advanced Traveler Information System (FRATIS) currently being demonstrated in the POLA/POLB; the Harbor Trucking Association (HTA)/Infomagnus *Geostamp* application, which entails the provision of real-time truck travel and terminal turn times via an automated mobile smart device application; and the University of California Riverside's *ECO-Drive* application, which entails using traffic signal timing information to optimize acceleration/deceleration of trucks. A one-year demonstration will be conducted to collect and analyze real-world operating data. These data will document project benefits including greenhouse gas (GHG) and criteria pollutant emission reductions and reduced petroleum use with a direct benefit to the local disadvantaged communities surrounding the ports. These three ITS providers will perform the integration work with assistance and coordination as necessary from POLA staff and the Los Angeles County Metropolitan Transportation Authority.

PROJECT BUDGET:

COMPONENT	AMOUNT
PA/ED	000,000
PS&E/Construction/Material Procurement (ITS Integration)	\$1,452,547
Construction Capital	<u>000,000</u>
Total Budget	\$1,452,547

SCOPE:

The Project features include, but are not limited to, the following:

4.1.1 Kick Off Meeting (1st Critical Project Review)

The Contractor shall arrange and hold a technical meeting to finalize tasks needed per contract and to finalize system architecture for the integrated application. The Contractor shall prepare and submit to the City of Los Angeles Harbor Department (Harbor Department) a CPR report discussing the plan for achieving goals and objectives detailed in the CEC Agreement, including collaboration with subcontractors and review process, and incorporating meeting notes of recommendations regarding continuing work.

Deliverables:

- Critical Project Review Report

4.1.2 Project Management Plan

The Contractor shall develop and maintain throughout the project life cycle, a project management plan. This task also covers recurring management tasks including management, coordination, and control of subcontractor's plans and tasks, validation of subcontractor's deliverables and invoicing. The Contractor shall use a proactive and collaborative approach including performance review and tracking that shall serve as the primary source for information related to schedule control. The Contractor shall hold bi-weekly technical meetings to discuss a number of topics related to executing the project.

Deliverables:

- Project Management Plan

4.1.3 Project Schedule

The Contractor shall develop and maintain a Project Schedule using Microsoft Project to prepare a schedule of tasks for completion to meet goals and objects set for Agreement. The Microsoft Project schedule shall be maintained, adjusted, and communicated throughout the life cycle of the project. Any proposed changes to the schedule shall follow a change control process (i.e., a change request shall be submitted to the Harbor Department).

Deliverables:

- Project Schedule in Microsoft Project

4.1.4 2nd Critical Project Review Meeting/Report

The Contractor shall arrange and hold a technical meeting to discuss project progress and to review the integration and deployment plans. The Contractor shall prepare and submit to the

Harbor Department CPR report discussing current progress and plans for project conclusion, including collaboration with subcontractors and review work process, incorporating meeting notes of recommendations regarding continuing work.

Deliverables:

- Critical Project Review Report

4.2.1 List of participating trucking companies and the number of trucks participating for each company

The Contractor shall conduct Stakeholder engagement and participation for the integrated application, including preliminary meetings with the participants to present the project objectives, expectations, and potential benefits and preparing a record of stakeholder engagement and corresponding consent for the CEC Agreement collaboration.

Deliverables:

- List of participating trucking companies
- Number of trucks participating for each company

4.2.2 Detailed Statistical Analysis of Marine Terminal Data (GEOSTAMP)

The Contractor shall perform a comprehensive statistical analysis of the turn time and waiting time of marine terminals to identify the best aggregation patterns and distributions required for Eco-FRATIS optimization. The results and conclusion of the analysis shall be provided by the Contractor to GEOSTAMP (subcontractor, Infomagnus) to implement the aggregation patterns required for daily FRATIS optimization runs.

Deliverables:

- Detailed statistical analysis of marine terminal data

4.2.3 Process map and workflows of participating trucking companies

Regarding the trucking company's process and workflow mapping, the Contractor shall review of any integration requirements between FRATIS and participants systems. This task shall require multiple interactions and meetings with each participant. This task assumes two trucking companies with a combined fleet up to 100 trucks. The Contractor shall conduct the meetings and provide a report to the Harbor Department discussing each company's corresponding process and workflow maps, and the number of trucks being supplied toward the necessary fleet. The Contractor shall identify, plan, map processes and protocols, and secure participants for demonstration.

Deliverables:

- Process maps and workflows of participating trucking companies

4.2.4 Detailed applications(s) architecture and design document

The Contractor shall provide detailed documentation of the system architecture for new developments. The document shall capture all the changes necessary to the existing FRATIS architecture, including the integration with Eco-Drive and Infomagnus system, as well as,

changes required by the participating trucking companies. The Contractor shall design and integrate FRATIS back-office application, subsystems, software, hardware, communication technologies, and infrastructure for use in the demonstration, monitoring, and data collection and analysis. A report detailing the architecture and function of the desired integrated application, including current design for FRATIS and any necessary development shall be prepared and submitted to the Harbor Department by the Contractor.

Deliverables:

- Detailed Application(s) Architecture and Design Document

4.2.5 Requirements analysis document

The Contractor shall prepare and submit to the Harbor Department a rendered list of all changes identified by the previous tasks and software development requirements.

Deliverables:

- Requirements Analysis Document

4.2.6 Development and integration plan, iterations, and timeline

The Contractor shall develop all new requirements, vital changes, integration of FRATIS with Infomagnus Geostamp and University of California Riverside (UCR) Eco-Drive and other systems, and enhancements. The development shall be according to the architecture and requirements developed. The development and integration of the application shall follow agile software development practices. The Contractor shall provide a sub-timeline on project schedule for development purposes and a detailed plan for code development to meet system requirements, predicted pathway for integration, and options for iterations.

Deliverables:

- Development and Integration Plan
- Software Development Iterations
- Add Development Timeline to Project Schedule

4.2.7 Testing and validation document

The Contractor shall design and integrate FRATIS back-office application, subsystems, software, hardware, communication technologies, and infrastructure for use in the demonstration, monitoring, and data collection and analysis. The Contractor shall test and verify all software developments and code added to Eco-FRATIS, fixing all the bugs, malfunctions, and inconsistencies, and prepare and submit to the Harbor Department a report of testing performed on developed system structure and validation of functionality.

Deliverables:

- Testing and Validation Document

4.2.8 Demonstration of the final application to the stakeholders

The Contractor shall prepare the final FRATIS application with comprehensive data set and a live demo of the FRATIS application with the new development to the stakeholders.

Deliverables:

- Demonstration of Final FRATIS Application

4.3.1 Determine Demonstration Sites

The Contractor shall coordinate with UCR, LA Metro, and other relevant agencies to identify up to 10 intersections to be used as the demonstration sites. The selection of the intersections shall take into consideration whether they are on major truck routes around the port, level of traffic, type of traffic signal control, geometric characteristics, etc. With assistance from the owner agencies, the Contractor shall evaluate traffic signal controllers at the selected intersections to identify equipment upgrade needs. Also, the Contractor shall survey the geographic coordinates of the selected intersections for use in the Eco-Drive calculation. The list of the selected intersections along with their equipment upgrade needs shall be prepared and submitted to the Harbor Department by the Contractor.

Deliverables:

- List of selected intersections
- Equipment upgrades per intersection

4.3.2 Develop Traffic Signal Information Server

In coordination with the owner agencies and UCR, the Contractor shall purchase necessary supplies and perform the upgrade of the selected traffic signal controllers in order for them to communicate signal phase and timing (SPaT) information to the Traffic Signal Information Server (TSIS) in real time. The Contractor shall develop TSIS to receive and store the SPaT information as well as to allow authorized users (e.g., Eco-Drive app on board a truck) to query such information in real time. At the end of this task, the Contractor shall coordinate with UCR to prepare and submit to the Harbor Department a technical memorandum describing the traffic signal controller upgrade and the TSIS development.

Deliverables:

- Technical memorandum of traffic signal controller upgrades and TSIS development

4.3.3 Develop Eco-Drive Algorithms and Application for Trucks

In previous research efforts, UCR has developed Eco-Drive algorithms for passenger vehicles. In this project, the Contractor shall coordinate with UCR is tasked to develop Eco-Drive algorithms specifically for drayage trucks, taking into account their unique dynamics and fuel consumption characteristics. The algorithms shall use SPaT information along with the information about the current position of the truck (from on-board GPS), the distance from the preceding vehicle (from on-board radar), and the relative location of the intersection (from on-board digital map) to determine the best course of action for passing through the intersection. The Contractor shall implement these algorithms as a mobile application (app) in the Android platform to be compatible with the FRATIS mobile app, and design and implement the software architecture and graphical user interface of the app. The app shall be initially tested using a test vehicle and a test intersection at UCR facilities. Then, the Contractor shall prepare and submit to the Harbor Department a technical memorandum that describes the work performed..

Deliverables:

- Technical memorandum of work performed on algorithms for mobile application

4.3.4 Test Eco-Drive Application

The Contractor shall coordinate with UCR to perform additional tests of the Eco-Drive app at the actual demonstration sites near the port. These tests shall verify the proper communication of SPaT information from the intersection(s) to TSIS and the proper functioning of the Eco-Drive app when receiving SPaT information from TSIS in real time. The Contractor shall coordinate with UCR to prepare and submit to the Harbor Department a technical memorandum that describes the testing and its outcome.

Deliverables:

- Technical memorandum of testing procedures and results

4.4.1 List of Participating Trucking Companies with Consent

The Contractor shall identify the list of participating trucking companies from the list of GEOSTAMP current users:

- Identifying which truck companies would best help the project
- Coordinate with Harbor Trucking Association on getting truck companies consent

Deliverables:

- List of participating trucking companies with consent

4.4.2 Set of Semi-Processed Data for Preliminary Analysis

The Contractor shall extract historical data from GEOSTAMP to be able to do preliminary statistical analysis to identify the aggregation models and algorithms:

- Define data requirements
- Create queries/stored procedures
- Export data from Database to Excel
- Review/Revise, as needed

Deliverables:

- Excel file of preliminary data

4.4.3 Final Requirements and Development Timeline

The Contractor shall perform the following:

- Define/refine data requirements
- Define API requirements
- Define+C9 security requirements
- Define technical architecture
- Create development project plan

Deliverables:

- Requirements Document

- Structure of overall timeline for deliverables of the solution

4.4.4 Data Feed of Historical Wait Time & Turn Time; Real-Time Wait-Time & Turn-Time

The Contractor shall aggregate the data based on the final aggregation models and algorithms to be able to provide the FRATIS optimization with historical data as well as real-time data of the marine terminal waiting time and turn time:

- Add opt-in/out flag in DB
- Add opt-in/out option to account screen
- Test & Deploy
- Send notifications to accounts with program details and instructions to opt in/out.
- Export list of participating accounts from DB to Excel.
- Create web services specification
- Implement historical web services
- Test historical web services
- Implement real-time web services
- Test real-time web services

Deliverables:

- Turn time data structure for the requirements of this solution
- Aggregated data from all vehicles

4.4.5 Secured Remote Access Mechanism for FRATIS (API, XML Feed, Etc.)

The Contractor shall provide a secured application programming interface (API) to enable FRATIS optimization to access Infomagnus historical and real-time waiting time and turn time of the marine terminals:

- Implement API security model
- Test security model

Deliverables:

- Integration platform for applications
- Security system to process request

4.5.1 Integrated Application Testing

The Contractor shall integrate all of the software code and automated procedures from other subcontractors, and testing the fully integrated application with all the subcomponents, including testing the API calls from FRATIS to Infomagnus. The Contractor shall coordinate with UCR to provide support to the ITS Team in the integration of the Eco-Drive app with the FRATIS mobile app. Eco-Drive shall run in the background and only be brought to the foreground when approaching a demonstration site intersection. The Contractor shall coordinate with Infomagnus to setup the test environment, deploy and validate web services, monitor application metrics and log for issues, and resolve issues and bugs. The Contractor shall coordinate with Infomagnus to prepare and submit to the Harbor Department a report of testing performed on integrated system structure and validation of functionality.

Deliverables:

- Integrated System Testing and Validation Document

4.5.2 Integrated application demonstration to stakeholders

The Contractor shall provide a live demo of the integrated Eco-FRATIS application to the stakeholders. The Contractor shall coordinate with UCR to provide personnel to support the ITS Team (PAI, UCR, and Infomagnus) in the demonstration of the Eco-Drive feature in the integrated application. The Contractor shall coordinate with Infomagnus to configure, setup, test and make available requirements for integrated application demo to stakeholders.

Deliverables:

- Demonstration of Final Eco-FRATIS Application

4.5.3 Integrated application deployment and training

The Contractor shall deploy the Eco-FRATIS back-office application as a web-based application and deploy the Eco-FRATIS tablets and the driver mobile application. The Contractor shall provide training for all the participating users and drivers, the full system shall be deployed after the training sessions are completed. The Contractor shall coordinate with UCR to identify a subset of 20 trucks that shall have access to the Eco-Drive feature within Eco-FRATIS, These trucks shall have radars and on-board computing devices installed. The Contractor shall coordinate with UCR to provide personnel support during driver training sessions, especially on how to use the Eco-Drive feature in the Eco-FRATIS application. The Contractor shall coordinate with Infomagnus to provide technical and development articles, as well as tech user based training material to work with the web services and integration system. The Contractor shall procure 100 Tablets for Truck Deployment and shall install the driver mobile application and all the other supporting applications:

Tablets bundle specifications:

- Samsung Tablet Tab E, 8"
- Protective rugged cover w/ Velcro
- 12 Month Data Plan
- Co-pilot Truck Navigation Application w/Traffic
- Remote Deployment and Locking Service

Deliverables:

- Final application deployed to all participants
- 100 tablets deployed to drivers

4.5.4 Data collections support and analysis on environmental impact

FRATIS shall be deployed and used by participants for a period of one year. The Contractor shall provide training and support to participating trucking company's dispatchers, operations staff, and truck drivers. The Contractor shall coordinate with UCR to provide support to the ITS Team in the collection of vehicle operation data through the Eco-FRATIS application for the duration of the demonstration period. The Contractor shall coordinate with UCR to use the California Air Resources Board (CAR)'s Emission Factor (EMFAC) model to estimate energy and emission reduction benefits of Eco-FRATIS based on the collected data. The Contractor shall coordinate with Infomagnus to provide relevant documentation and data collection assistance for the development team. Comprehensive Meta-data shall be collected, archived, validated, and analyzed during the pilot period. Provide support to the project participants.

Deliverables:

- Data Collection (12 months)
 - Total time per truck
 - Total waiting time per truck
 - Turn time per truck
 - Fuel consumption (derived from other measures)
 - Emissions (derived from other measures)
 - Specific jobs and economic development resulting from this project
- Analysis on Environmental Impact
- Pre-deployment baseline data and post-deployment baseline data

4.5.5 Draft and Final Report

The Contractor shall prepare detailed documentation of project outcome, findings, and conclusions. This includes stakeholder engagement, development, integration, testing, demonstration, deployment, and data collection and analysis. This analysis shall cover quantitative analysis of reduced fuel consumption and emissions by participating trucks, increased productivity, decreased wait time, and related benefits to California. The Contractor shall coordinate with UCR to coauthor the project Draft and Final Reports by describing all aspects of UCR's work. The Contractor shall coordinate with Infomagnus to provide architectural diagrams and content for the Final Report. The Contractor shall provide a draft of the Final Report for the feedback from the Harbor Department and submit to the Harbor Department the Final Report and final invoicing.

Deliverables:

- Draft Report
- Final Report

MILESTONES: The implementation schedule for this project will be as follows.

	START DATE	COMPLETION DATE
SOLICITATION (BID/PROPOSAL)		
Board Approval	11/17/2016	12/17/2016
Fully Executed Contract	11/17/2016	12/2/2016
PLANNING		
Prepare Project Management Plan	1/2/2017	2/10/2017
PRELIMINARY DESIGN		
Intelligent Transportation System (ITS)		
System Requirements	1/2/2017	11/28/2017
High Level Design	1/2/2017	11/28/2017
Development and Integration Plan	7/12/2017	12/1/2017
PS&E/Construction/Material Procurement (ITS Integration)		
Test Application	11/14/2017	2/12/2018
Integrated Application Testing and Deployment	2/13/2018	8/29/2018
Data Collection and Analysis	5/3/2018	5/2/2019
Submit Final Report	5/3/2019	5/30/2019

FA ATTACHMENT D
PROJECT REPORTING & EXPENDITURE GUIDELINES

REPORTING PROCEDURES

- Quarterly Progress/Expenditure Report (Attachment D1) is required for all projects. The GRANTEE shall be subject to and comply with all applicable requirements of the funding agency regarding project-reporting requirements. In addition, GRANTEE will submit a quarterly report to the LACMTA at ACCOUNTSPAYABLE@METRO.NET or by mail to **Los Angeles Metropolitan Transportation Authority, Accounts Payable, P. O. Box 512296, Los Angeles, California 90051-0296**. Please note that letters or other forms of documentation may not be substituted for this form.
- The Quarterly Progress/Expenditure Report covers all activities related to the project and lists all costs incurred. It is essential that GRANTEE provide complete and adequate response to all the questions. The expenses listed must be supported by appropriate documentation with a clear explanation of the purpose and relevance of each expense to the project.
- In cases where there are no activities to report, or problems causing delays, clear explanation, including actions to remedy the situation, must be provided.
- GRANTEES are required to track and report on the project schedule. LACMTA will monitor the timely use of funds and delivery of projects. Project delay, if any, must be reported each quarter.
- The Quarterly Progress/Expenditure Report is due to the LACMTA as soon as possible after the close of each quarter, but no later than the following dates for each fiscal year:

<i>Quarter</i>	<i>Report Due Date</i>
July -September	November 30
October - December	February 28
January - March	May 31
April - June	August 31

Upon completion of the Project a final report that includes project’s final evaluation must be submitted.

EXPENDITURE GUIDELINES

- Any activity or expense charged above and beyond the approved Scope of Work (FA Attachment C) **is considered ineligible** and will not be reimbursed by the LACMTA unless **prior written authorization** has been granted by the LACMTA Chief Executive Officer or his/her designee.
- Any expense charged to the grant must be clearly and directly related to the project.
- Administrative cost is the ongoing expense incurred by the GRANTEE for the duration of the project and for the direct benefit of the project as specified in the Scope of Work (Attachment C). Examples of administrative costs are personnel, office supplies, and equipment. As a condition for eligibility, all costs must be necessary for maintaining, monitoring, coordinating, reporting and budgeting of the project. Additionally, expenses must be reasonable and appropriate to the activities related to the project.
- LACMTA is not responsible for, and will not reimburse any costs incurred by the GRANTEE prior to the Effective Date of the FA, unless **written authorization** has been granted by the LACMTA Chief Executive Officer or his/her designee.

DEFINITIONS

- Allowable Cost: To be allowable, costs must be reasonable, recognized as ordinary and necessary, consistent with established practices of the organization, and consistent with industry standard of pay for work classification.
- Excessive Cost: Any expense deemed “excessive” by LACMTA staff would be adjusted to reflect a “reasonable and customary” level. For detail definition of “reasonable cost”, please refer to the Federal Register *OMB Circulars A-87 Cost Principals for State and Local Governments; and A-122 Cost Principals for Nonprofit Organizations*.
- Ineligible Expenditures: Any activity or expense charged above and beyond the approved Scope of Work is considered ineligible.

**LACMTA
ATTACHMENT D-1
PROJECT TITLE:
MONTHLY PROGRESS REPORT**

Grantee To Complete	
Invoice #	
Invoice Date	
FA#	
Monthly Report #	

**GRANTEES ARE REQUESTED TO EMAIL THIS REPORT TO
ACCOUNTSPAYABLE@METRO.NET**

or submit by mail to:
Los Angeles County Metropolitan Transportation Authority
Accounts Payable
P. O. Box 512296
Los Angeles, California 90051-0296
after the close of each month. Please note that letters or other forms
of documentation may not be substituted for this form. Refer to the
Reporting and Expenditure Guidelines (Attachment D) for further information.

SECTION 1: GENERAL INFORMATION

PROJECT TITLE: _____

FA #: _____

MONTHLY REPORT SUBMITTED FOR: Month: _____ Year: _____

DATE SUBMITTED: _____

DRAFT

LACMTA Project Manager	Name:	_____
	Phone Number:	_____
	e-mail:	_____
GRANTEE Contact / Project Manager	Contact Name:	_____
	Job Title:	_____
	Department:	_____
	City / Agency:	_____
	Mailing Address:	_____
	Phone Number:	_____
	e-mail:	_____

LACMTA
 ATTACHMENT D-1
 PROJECT TITLE:
MONTHLY PROGRESS REPORT
 SECTION 1. MONTHLY PROGRESS REPORT
1. DELIVERABLES & MILESTONES

List all deliverables and milestones as stated in the FA, with start and end dates. DO NOT CHANGE THE ORIGINAL FA MILESTONE START AND END DATES BELOW.

Grantees must make every effort to accurately portray milestone dates in the original FA Scope of Work, since this will provide the basis for calculating any project delay. If milestone start and/or end dates change from those stated in the Original FA S

FA Milestones	Original FA Start Date in Scope of Work (Month/Year) a	Original FA End Date In Scope of Work (Month/Year) b	LACMTA Approved Changes (Months) c	LACMTA Approved Completion Schedule d=b+c	Actual Start Date (Month/Year)	Actual End Date (Month/Year)	Percent Completed By Time	Current Completion Forecast (Month/Year) e	Schedule Variance (Months) f=e-d
SOLICITATION (BID/PROPOSAL)									
Develop Solicitation Package									
Solicitation Responses									
Evaluations									
Selection									
Board Approval									
Contract Award									
Fully Executed Contract									
PLANNING									
Prepare Concept Report									
Prepare Feasibility Study									
Prepare Project Study Report									
Intelligent Transportation									
Feasibility Study									
Concept Exploration									
OTHER: (Please specify)									
Preliminary Design									
Prepare Detailed Design Plans									
Prepare Detailed Construction									
Prepare Project Cost Estimate									
Intelligent Transportation									
Concept of Operations									
System Requirements									
High Level Design									
PA&ED									
Prepare Environmental Document									
Scoping									
Technical Studies									
Draft Environmental									
Final Environmental									
Community Outreach									
Secure Project Approval									
Intelligent Transportation									
Categorical Exemption									
OTHER: (Please specify)									
PS&E									
35% PS&E									
Preliminary Investigations									
Preliminary Foundation									
Geometric Drawings									
Bridge Type Selection									
ADL Review									
Utilities									
Right-of-Way									
Estimating									
Civic Design									
Structural Design									
Intelligent Transportation									
Detailed Design									
ITS Drawings									
System Plans									
Communications Plans									
Systems Integrations Plans									
Equipment Specifications									
Software Specifications									
Project Review & Comments									
65% PS&E									
Civil Design Plans									
Right-of-Way Engineering									
Structural Design									
Prepare Project Cost									
Intelligent Transportation									
Detailed Design									
ITS Drawings									
System Plans									
Communications Plans									
Systems Integrations Plans									
Equipment Specifications									
Software Specifications									
Project Review & Comments									

DRAFT

LACMTA
 ATTACHMENT D-1
 PROJECT TITLE:
 MONTHLY PROGRESS REPORT

FA Milestones	Original FA Start Date in Scope of Work (Month/Year) a	Original FA End Date In Scope of Work (Month/Year) b	LACMTA Approved Changes (Months) c	LACMTA Approved Completion Schedule d=b+c	Actual Start Date (Month/Year)	Actual End Date (Month/Year)	Percent Completed By Time	Current Completion Forecast (Month/Year)	Schedule Variance (Months) f=e-d
95% PS&E									
Civil Design Plans									
Structural Design									
Intelligent Transportation									
Detailed Design									
ITS Drawings									
System Plans									
Communications Plans									
Systems Integrations Plans									
Equipment Specifications									
Software Specifications									
Submittals & Reviews									
Submit Final PS&E									
Outside Agency Review									
OTHER: (Please specify)									
ROW									
Certification/Mapping									
Title Report									
Meet with Property Owners									
Appraisal									
Environmental Investigation									
Closing/Acquisition/Relocation									
Physical Possession									
Remediation									
Third Party Coordination									
UTILITY RELOCATION									
Third Party Coordination									
Design Utilities									
Relocate Utilities									
OTHER: (Please specify)									

DRAFT

LACMTA
 ATTACHMENT D-1
 PROJECT TITLE:
 MONTHLY PROGRESS REPORT

FA Milestones	Original FA Start Date in Scope of Work (Month/Year) a	Original FA End Date in Scope of Work (Month/Year) b	LACMTA Approved Changes (Months) c	LACMTA Approved Completion Schedule d=b+c	Actual Start Date (Month/Year)	Actual End Date (Month/Year)	Percent Completed By Time	Current Completion Forecast (Month/Year)	Schedule Variance (Months) f=e-d
CONSTRUCTION									
Solicitation (Bk/Proposal)									
Develop Solicitation Package									
Solicitation Response									
Evaluations									
Selection									
Board Approval Process									
Contract Award									
Fully Executed Contract									
Excavation									
Clear/Grub									
Survey									
Sample Borings									
Grading									
Compaction									
Drainage									
Environmental									
Hazardous Materials Handling									
Archaeological									
Air Quality Monitoring									
Concrete									
Form Work									
Rebar Placement									
Imbeds									
Testing									
Finishing									
Traffic Control									
TMP									
Structural									
False Work									
Iron Placement									
Pole Placement									
Utilities									
DWP									
SCE									
LADOT									
Materials									
Long-Lead Equipment									
Staging									
Material Lay Down Area									
Signage									
Electrical									
Power U/G Communications									
AVG Testing/Acceptance									
Landscape									
Clearing									
Planting									
Plant Establishment									
Irrigation									
Testing									
Change Orders									
P.O. Processing Time									
Weather									
Third Party Issues									
Strike Labor Walk Outs									
Force Majeure									
Claims									
Intelligent Transportation System									
Hardware / Software Procurement									
Equipment Installations									
Software Development									
Systems Integration									
Device Testing									
Subsystem Verification									
System Verification									
Final Systems Acceptance									
OTHER: (Please specify)									

DRAFT

LACMTA
 ATTACHMENT D-1
 PROJECT TITLE:
 MONTHLY PROGRESS REPORT

2. PROJECT COMPLETION

Based on the comparison of the original and actual project milestone schedules above, project is (select only one):

- Ahead of original FA schedule Less than 12 months behind original schedule
 On schedule per original FA schedule More than 24 months behind original schedule
 Between 12-24 months behind original schedule

3. TASKS / MILESTONES ACCOMPLISHED

List tasks or milestones accomplished and progress made this month.

4. PROJECT DELAY

If project is delayed, describe reasons for delay (this month). Pay particular attention to schedule delays. If delay is for the same reason as mentioned in previous months, please indicated by writing "Same as Previous Month"

5. ACTION ITEMS TO RESOLVE DELAY

If the project is delayed (as described in #4), include action items that have been, or will be, undertaken to resolve the delay.

Issue(s)	Targeted Resolution/Response Date
DRAFT	

6. COST SUMMARY

FA Milestones	Project Budget g	LACMTA Approved Changes h	Current Approved Budget i(g+h)	Expenditures to Date j	Estimate At Completion k	Cost Variance l(k-i)	Cost Variance	Percent Completed By Dollar Amount
PLANNING								
PA&ED								
PS&E								
ROW Support								
ROW								
CONSTRUCTION Support								
CONSTRUCTION								

7. RISK MANAGEMENT PLAN / PROJECT RISK REGISTER

This Risk Register shall include a listing of potential project risks. Identify project risks and provide a description of individual risk events or unplanned events that may occur and the estimated outcome or impact to project, scope, cost and schedule; provide a qualitative assessment of risk potential; identify risk mitigation strategies; and provide recommendations or actions for responding to project risk. This section requires periodic updates as the project progresses and as risk events occur.

Risk Category	Risk Event	Risk Potential (Low/Medium/High)	Risk Mitigation Strategies	Action	Outcomes
Environmental					
Planning					
Design					
ROW					
Construction					
Bid/Award					
Third Party					

I certify that I am the responsible Project Manager or fiscal officer and representative of _____ and that to the best of my knowledge and belief the information stated in this report is true and correct.

Signature _____

Date _____

**LACMTA FA MEASURE R ATTACHMENT D-2
 QUARTERLY PROGRESS / EXPENSE REPORT**

Grantee To Complete	
Invoice #	
Invoice Date	
FA#	920000000MR
Quarterly Report #	

**GRANTEES ARE REQUESTED TO EMAIL THIS REPORT TO
 ACCOUNTSPAYABLE@METRO.NET**

or submit by mail to:
 Los Angeles County Metropolitan Transportation Authority
 Accounts Payable
 P. O. Box 512296
 Los Angeles, California 90051-0296
 after the close of each quarter, but no later than November 30, February 28,
 May 31 and August 31. Please note that letters or other forms
 of documentation may **not** be substituted for this form. Refer to the
 Reporting and Expenditure Guidelines (Attachment C) for further information.

SECTION 1: QUARTERLY EXPENSE REPORT

Please itemize grant-related charges for this Quarter on Page 5 of this report and **include totals in this Section.**

	LACMTA Measure R Grant \$
Project Quarter Expenditure	
This Quarter Expenditure	
Retention Amount	
Net Invoice Amount (Less Retention)	
Project-to-Date Expenditure	
Funds Expended to Date (Include this Quarter)	
Total Project Budget	
% of Project Budget Expended to Date	
Balance Remaining	

DRAFT

SECTION 2: GENERAL INFORMATION

PROJECT TITLE: _____

FA #: _____

QUARTERLY REPORT SUBMITTED FOR:

Fiscal Year :

- 2014-2015 2015-2016 2016-2017
 2017-2018 2018-2019 2019-2020

Quarter :

- Q1: Jul - Sep Q2: Oct - Dec
 Q3: Jan - Mar Q4: Apr - Jun

DATE SUBMITTED: _____

LACMTA MODAL CATEGORY:

- RSTI Pedestrian Signal Synchronization
 TDM Bicycle Goods Movement
 Transit

LACMTA Project Manager	Name: _____
	Phone Number: _____
	E-mail: _____

Project Sponsor Contact / Project Manager	Contact Name: _____
	Job Title: _____
	Department: _____
	City / Agency: _____
	Mailing Address: _____
	Phone Number: _____
	E-mail: _____

DRAFT

SECTION 3 : QUARTERLY PROGRESS REPORT

1. DELIVERABLES & MILESTONES

List all deliverables and milestones as stated in the FA, with start and end dates. Calculate the total project duration. **DO NOT CHANGE THE ORIGINAL FA MILESTONE START AND END DATES SHOWN IN THE 2ND AND 3RD COLUMNS BELOW.**

Grantees must make every effort to accurately portray milestone dates in the original FA Scope of Work, since this will provide the basis for calculating any project delay. If milestone start and/or end dates change from those stated in the Original FA Scope of Work, indicate the new dates under Actual Schedule below and re-calculate the project duration. However, this does not change the original milestones in your FA. PER YOUR FA AGREEMENT, ANY CHANGES TO THE PROJECT SCHEDULE MUST BE FORMALLY SUBMITTED UNDER SEPARATE COVER TO LACMTA FOR WRITTEN CONCURRENCE.

FA Milestones	Original FA Schedule in Scope of Work		Actual Schedule	
	Start Date	End Date	Start Date	End Date
Environmental Clearance				
Design Bid & Award				
Design				
Right-of-Way Acquisition				
Construction Bid & Award				
Ground Breaking Event				
Construction				
Ribbon Cutting Event				
Total Project Duration (Months)				

DRAFT

2. PROJECT COMPLETION

A. Based on the comparison of the original and actual project milestone schedules above, project is (select only one) :

- On schedule per original FA schedule
 Less than 12 months behind original schedule
 Between 12-24 months behind original schedule
 More than 24 months behind original schedule

B. Was the project design started within 6 months of the date originally stated in the FA?

- Yes
 No
 Not Applicable

C. Was a construction contract or capital purchase executed within 9 months after completion of design / specifications?

- Yes
 No
 Not Applicable

3. TASKS / MILESTONES ACCOMPLISHED

List tasks or milestones accomplished and progress made this quarter.

4. PROJECT DELAY

If project is delayed, describe reasons for delay (this quarter). Pay particular attention to schedule delays. If delay is for the same reason as mentioned in previous quarters, please indicate by writing "Same as Previous Quarter".

DRAFT

5. ACTION ITEMS TO RESOLVE DELAY

If the project is delayed (as described in #4), include action items that have been, or will be, undertaken to resolve the delay.

SECTION 4: ITEMIZED LISTING OF EXPENSES AND CHARGES THIS QUARTER

All expenses and charges must be itemized and listed below. Each item listed must be verifiable by an invoice and/or other proper documentation. The total amounts shown here must be equal to this quarter's expenditures listed on page 1 of this report. All expenses and charges must be reflective of the approved budget and rates as shown in the FA Attachment B, Scope of Work. Use additional pages if needed.

ITEM	INVOICE #	TOTAL EXPENSES CHARGED TO LACMTA MEASURE R GRANT
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
TOTAL		

Note:

All receipts, invoices, and time sheets, attached and included with this Expense Report must be listed and shown under the Invoice Number column of the Itemized Listing (above).

DRAFT

Invoice Payment Information:

LACMTA will make all disbursements electronically unless an exception is requested in writing.

ACH Payments require that you complete an ACH Request Form and fax it to Accounts Payable at 213-922-6107.

ACH Request Forms can be found at www.metro.net/callforprojects.

Written exception requests for Check Payments should be completed and faxed to Accounts Payable at 213-922-6107.

I certify that I am the responsible Project Manager or fiscal officer and representative of _____ and that to the best of my knowledge and belief the information stated in this report is true and correct.

Signature

Date

Name

Title

ATTACHMENT E
Federal Transportation Improvement Program (FTIP)

Project Sheet Instructions:

PLEASE GO TO THE ProgramMetro FTIP DATABASE LINK: program.metro.net

- Review & Update your projects in the FTIP through the ProgramMetro database
- Click the Reports link at [GENERATE/PRINT REPORTS](#)
- Click on the [FTIP PROJECT SHEET \(PDF\)](#) link
- Under the File menu, select "Save As" and save the PDF on your computer or network
- Attach your FTIP PROJECT SHEET (PDF) to the FA as Attachment E, using the typewriter tool in Adobe to label the attachment accordingly as "Attachment E" **FTIP PROJECT SHEET** or affix a label stating "**ATTACHMENT E - FTIP PROJECT SHEET**" at the bottom of the sheet.

FOR GENERAL INFORMATION AND OVERVIEW OF METRO'S PROJECTS, PLEASE GO TO metro.net/projects/transport_improvement_pgm.

FOR ADDITIONAL INFORMATION OR ASSISTANCE, METRO'S FTIP CONTACTS ARE AS FOLLOWS:

Contact Person	Phone/FAX Information	Email
Nancy Marroquin	213.922.7237	marroquinn@metro.net
Jeeseong Chung	213.922.2478	chungje@metro.net
Philip Kamhi	213.922.2465	kamhip@metro.net
Andrew Esmailian	213.922.2434	esmailiana@metro.net
Justine Pascual	213.922.2445	pascualj@metro.net

The FAX number for all Contacts is 213.922.2476.

MAIN MENU

M

VIEWING A PROJECT (READ-ONLY MODE)
 IF YOU WOULD LIKE TO MAKE CHANGES TO THIS PROJECT, PLEASE PROCEED THROUGH AN AMENDMENT.

[VIEW PREVIOUS VERSIONS OF THIS PROJECT](#)

[VIEW / UPLOAD PROJECT DOCUMENTS](#)

PROJECT ID: LA0G1354	VERSION: 1	SCAG VERSION:
CTIPS ID: n/a	PROPOSED FTIP: 17-05	TOTAL COST \$1,453
PPNO: n/a		OBLIGATED COST \$0
EA NUMBER: n/a		

LAST MODIFIED BY: Tracey Zullani (10/31/2016) **APPROVED BY:** N/A [HISTORY](#) [DETAILS CHANGED!](#)

* denotes required fields

ADMINISTRATIVE EDIT

PROGRAM SOURCE Formal Amendment -	TIP PROJECT ID	SCAG MODELING #	CAP INC	REGN SIG	MODE NO MODELING
GROUP PROJ No	GROUP NAME	CONFORMITY CATEGORY TCM			

EMISSION REDUCTIONS (kg/day)

ROG/VOC	CO	NOx	PM 10	PM 2.5

PROJECT TITLE

Demonstrate advanced freight transportation info system for drayage trucks to improve movement of people and goods, congestion, and air quality to I-710 freeway and adjacent arterials, thus providing reduced truck fuel consumption GHG, and criteria pollut

PROJECT INFORMATION

PROGRAM / AUTHORIZATION TYPE SCAG RTP PROJECT #	ID	IMPLEMENTING AGENCY Port of Los Angeles
		PROJECT MANAGER Kerry Cartwright
		PHONE (10-DIGIT) 3107327702
		EMAIL kcartwright@portla.org
		CFP MODE Goods Movement Improvements

PROJECT DESCRIPTION - GUIDELINES

Demonstrate advanced freight transportation info system for drayage trucks to improve movement of people and goods, congestion, and air quality to I-710 freeway and adjacent arterials, thus providing reduced truck fuel consumption GHG, and criteria pollutant emissions to/from marine

PRIMARY PROGRAM CODE - Look up Program Code

TDM24 - TDM PROGRAMS-NON RIDEMATCHING & NON PARK & RIDE
#1 SECONDARY PROGRAM CODE
#2 SECONDARY PROGRAM CODE

SYSTEM Local Hwy	ROUTE	SUFFIX	LOCAL STREET NAME Various Streets in and around Port of Lo	FROM Various	TO Various
----------------------------	--------------	---------------	--	------------------------	----------------------

FEDERAL UZA Los Angeles-Long Beach-Santa Ana	SCAG SUB-AREA	MTA SUB-REGION
--	----------------------	-----------------------

ENVIRONMENTAL INFORMATION

AIR BASIN -MAP SCAB	ENVIRONMENTAL DOCUMENT CATEGORICALLY EXEMPT	ENV DOC COMPLETION DATE 11/17/2016
----------------------------------	---	--

PROGRAMMING INFORMATION (\$000)

[HISTORICAL REVENUES!](#) [GRAPH REVENUES!](#)

EST TOTAL PROJECT COST \$1,453	STIP / SHOPP
FISCAL YEAR	FUND TYPE (PROGRAMMED REVENUE SOURCE) - FUND HELP
PA&ED/PS&E	ROW
CON	TOTAL

16/17	▼	AGENCY - Agency	▼	\$1,210	\$0	\$0	\$1,210	X
16/17	▼	PORT - Port Funds	▼	\$243	\$0	\$0	\$243	X
	▼		▼				\$0	
	▼		▼				\$0	
	▼		▼				\$0	
	▼		▼				\$0	
	▼		▼				\$0	
	▼		▼				\$0	
				AGENCY - Agency	\$1,210	\$0	\$0	\$1,210
				PORT - Port Funds	\$243	\$0	\$0	\$243
				GRAND TOTAL	\$1,453	\$0	\$0	\$1,453

*Toll Credit is not part of the GRAND TOTAL

Update Subtotals

SCHEDULE INFORMATION

PROJECT COMPLETION DATE: 11/6/2019

*CURRENT IMPLEMENTATION STATUS: Environmental Document/Pre-Design Phase (PAED)

LAST UPDATED: 10/31/2016 12:04:50 PM

	SCHEDULED START		ACTUAL START		SCHEDULED COMPLETION		ACTUAL COMPLETION	
	MONTH	YEAR	MONTH	YEAR	MONTH	YEAR	MONTH	YEAR
PA&ED	▼	▼	▼	▼	▼	▼	▼	▼
PS&E	JAN	2017	▼	▼	NOV	2019	▼	▼
ROW	▼	▼	▼	▼	▼	▼	▼	▼
CON	▼	▼	▼	▼	▼	▼	▼	▼

CALTRANS ID: XXXX(XXX)

CHANGE REASON

[HISTORICAL COMMENTS](#)

[\[SEE HISTORICAL COMMENTS\]](#)

*GENERAL COMMENTS - LAST UPDATED: 10/31/2016 - [GUIDANCE](#) - (Please comment on the status of the project and provide the reason for any changes to the project description, funding information and schedule made above.)

This is IT-related project and there is no particular street or freeway designated for the project. This IT project will relay information to truckers on optimal routes and time to and from the Port of Los Angeles for drayage purposes. There is no formal environmental document required for this project; project to be implemented by private vendors (at a minimum CE could be issued if required). There was no primary code applicable for ITS, so TDM24 was selected. Agency funds account for California Energy Commission funds amount \$970K and METRO funds amount \$240K. Port Funds account for dollars provided by private match.

[\[SEE HISTORICAL COMMENTS\]](#)

MODELING COMMENTS - LAST UPDATED: 10/31/2016 - (If the project [scope](#) has been changed, the project was [delayed](#) or [advanced](#) or the total projects cost has changed, provide a reason for the changes. If there is no significant change made above note that there is "no significant change made")

No significant change made

[\[SEE HISTORICAL COMMENTS\]](#)

TCM COMMENTS - LAST UPDATED: 10/31/2016 - (If the project [scope](#) has been changed, the project was [delayed](#) or [advanced](#) or the total projects cost has changed, provide a reason for the changes. If there is no significant change made above note that there is "no significant change made")

No significant change made

ATTACHMENT F BOND REQUIREMENTS

The provisions of this Attachment F apply only if and to the extent some or all of the Funds are derived from LACMTA issued Bonds or other debt, the interest on which is tax exempt for federal tax purposes and/or Build America Bonds as defined in the American Reinvestment and Recovery Act of 2009 or similar types of bonds (collectively, the "Bonds").

GRANTEE acknowledges that some or all of the Funds may be derived from Bonds, the interest on which is tax-exempt for federal tax purposes or with respect to which LACMTA receives a Federal subsidy for a portion of the interest cost or the investor receives a tax credit. GRANTEE further acknowledges its understanding that the proceeds of the Bonds are subject to certain ongoing limitations relating to the use of the assets financed or provided with such proceeds ("Project Costs" or "Project Components") in the trade or business of any person or entity other than a governmental organization (any such use by a person or entity other than a governmental organization is referred to as "Private Use"). Private Use will include any sale, lease or other arrangement pursuant to which a nongovernmental person or entity receives a legal entitlement of a Project Component and also includes certain agreements pursuant to which a nongovernmental person will operate or manage a Project Component. Each quarterly invoice submitted by GRANTEE to reimburse prior expenditures (or to be received as an advance) shall provide information regarding the specific Project Costs or Project Components to which the Funds which pay that invoice will be allocated and whether there is or might be any Private Use associated with such Project Costs or Project Components. GRANTEE will, for the entire time over which LACMTA's Bonds or other debt remains outstanding, (1) notify and receive LACMTA's approval prior to entering into any arrangement which will or might result in Private Use and (2) maintain records, including obtaining records from contractors and subcontractors as necessary, of all allocations of Funds to Project Costs or Project Components and any Private Use of such Project Costs or Project Components in sufficient detail to comply and establish compliance with Section 141 of the Internal Revenue Code of 1986, as amended (the "Code"), or similar code provision then in effect and applicable, as determined by the LACMTA in consultation with its bond counsel.

GRANTEE will designate one or more persons that will be responsible for compliance with the obligations described in this Attachment F and notify LACMTA of such designations.

Exhibit C

Eco-Freight Advanced Traveler Information System (Eco-FRATIS)

Drayage Truck Efficiency Project

Scope of Work

Project Breakdown

4.1.1 Kick Off Meeting (1st Critical Project Review)

The Contractor shall arrange and hold a technical meeting to finalize tasks needed per contract and to finalize system architecture for the integrated application. The Contractor shall prepare and submit to the City of Los Angeles Harbor Department (Harbor Department) a CPR report discussing the plan for achieving goals and objectives detailed in the CEC Agreement, including collaboration with subcontractors and review process, and incorporating meeting notes of recommendations regarding continuing work.

Deliverables:

- Critical Project Review Report

4.1.2 Project Management Plan

The Contractor shall develop and maintain throughout the project life cycle, a project management plan. This task also covers recurring management tasks including management, coordination, and control of subcontractor's plans and tasks, validation of subcontractor's deliverables and invoicing. The Contractor shall use a proactive and collaborative approach including performance review and tracking that shall serve as the primary source for information related to schedule control. The Contractor shall hold bi-weekly technical meetings to discuss a number of topics related to executing the project.

Deliverables:

- Project Management Plan

4.1.3 Project Schedule

The Contractor shall develop and maintain a Project Schedule using Microsoft Project to prepare a schedule of tasks for completion to meet goals and objects set for Agreement. The Microsoft Project schedule shall be maintained, adjusted, and communicated throughout the life cycle of the project. Any proposed changes to the schedule shall follow a change control process (i.e., a change request shall be submitted to the Harbor Department).

Deliverables:

- Project Schedule in Microsoft Project

4.1.4 2nd Critical Project Review Meeting/Report

The Contractor shall arrange and hold a technical meeting to discuss project progress and to review the integration and deployment plans. The Contractor shall prepare and submit to the Harbor Department CPR report discussing current progress and plans for project conclusion, including collaboration with subcontractors and review work process, incorporating meeting notes of recommendations regarding continuing work.

Deliverables:

- Critical Project Review Report

4.2.1 List of participating trucking companies and the number of trucks participating for each company

The Contractor shall conduct Stakeholder engagement and participation for the integrated application, including preliminary meetings with the participants to present the project objectives, expectations, and potential benefits and preparing a record of stakeholder engagement and corresponding consent for the CEC Agreement collaboration.

Deliverables:

- List of participating trucking companies
- Number of trucks participating for each company

4.2.2 Detailed Statistical Analysis of Marine Terminal Data (GEOSTAMP)

The Contractor shall perform a comprehensive statistical analysis of the turn time and waiting time of marine terminals to identify the best aggregation patterns and distributions required for Eco-FRATIS optimization. The results and conclusion of the analysis shall be provided by the Contractor to GEOSTAMP (subcontractor, Infomagnus) to implement the aggregation patterns required for daily FRATIS optimization runs.

Deliverables:

- Detailed statistical analysis of marine terminal data

4.2.3 Process map and workflows of participating trucking companies

Regarding the trucking company's process and workflow mapping, the Contractor shall review of any integration requirements between FRATIS and participants systems. This task shall require multiple interactions and meetings with each participant. This task assumes two trucking companies with a combined fleet up to 100 trucks. The Contractor shall conduct the meetings and provide a report to the Harbor Department discussing each company's corresponding process and workflow maps, and the number of trucks being supplied toward the necessary fleet. The Contractor shall identify, plan, map processes and protocols, and secure participants for demonstration.

Deliverables:

- Process maps and workflows of participating trucking companies

4.2.4 Detailed applications(s) architecture and design document

The Contractor shall provide detailed documentation of the system architecture for new developments. The document shall capture all the changes necessary to the existing FRATIS architecture, including the integration with Eco-Drive and Infomagnus system, as well as, changes required by the participating trucking companies. The Contractor shall design and integrate FRATIS back-office application, subsystems, software, hardware, communication technologies, and infrastructure for use in the demonstration, monitoring, and data collection and analysis. A report detailing the architecture and function of the desired integrated application, including current design for FRATIS and any necessary development shall be prepared and submitted to the Harbor Department by the Contractor.

Deliverables:

- Detailed Application(s) Architecture and Design Document

4.2.5 Requirements analysis document

The Contractor shall prepare and submit to the Harbor Department a rendered list of all changes identified by the previous tasks and software development requirements.

Deliverables:

- Requirements Analysis Document

4.2.6 Development and integration plan, iterations, and timeline

The Contractor shall develop all new requirements, vital changes, integration of FRATIS with Infomagnus Geostamp and University of California Riverside (UCR) Eco-Drive and other systems, and enhancements. The development shall be according to the architecture and requirements developed. The development and integration of the application shall follow agile software development practices. The Contractor shall provide a sub-timeline on project schedule for development purposes and a detailed plan for code development to meet system requirements, predicted pathway for integration, and options for iterations.

Deliverables:

- Development and Integration Plan
- Software Development Iterations
- Add Development Timeline to Project Schedule

4.2.7 Testing and validation document

The Contractor shall design and integrate FRATIS back-office application, subsystems, software, hardware, communication technologies, and infrastructure for use in the demonstration, monitoring, and data collection and analysis. The Contractor shall test and verify all software developments and code added to Eco-FRATIS, fixing all the bugs, malfunctions, and inconsistencies, and prepare and submit to the Harbor Department a report of testing performed on developed system structure and validation of functionality.

Deliverables:

- Testing and Validation Document

4.2.8 Demonstration of the final application to the stakeholders

The Contractor shall prepare the final FRATIS application with comprehensive data set and a live demo of the FRATIS application with the new development to the stakeholders.

Deliverables:

- Demonstration of Final FRATIS Application

4.3.1 Determine Demonstration Sites

The Contractor shall coordinate with UCR, LA Metro, and other relevant agencies to identify up to 10 intersections to be used as the demonstration sites. The selection of the intersections shall take into consideration whether they are on major truck routes around the port, level of traffic, type of traffic signal control, geometric characteristics, etc. With assistance from the owner agencies, the Contractor shall evaluate traffic signal controllers at the selected intersections to identify equipment upgrade needs. Also, the Contractor shall survey the geographic coordinates of the selected intersections for use in the Eco-Drive calculation. The list of the selected intersections along with their equipment upgrade needs shall be prepared and submitted to the Harbor Department by the Contractor.

Deliverables:

- List of selected intersections
- Equipment upgrades per intersection

4.3.2 Develop Traffic Signal Information Server

In coordination with the owner agencies and UCR, the Contractor shall purchase necessary supplies and perform the upgrade of the selected traffic signal controllers in order for them to communicate signal phase and timing (SPaT) information to the Traffic Signal Information Server (TSIS) in real time. The Contractor shall develop TSIS to receive and store the SPaT information as well as to allow authorized users (e.g., Eco-Drive app on board a truck) to query such information in real time. At the end of this task, the Contractor shall coordinate with UCR to prepare and submit to the Harbor Department a technical memorandum describing the traffic signal controller upgrade and the TSIS development.

Deliverables:

- Technical memorandum of traffic signal controller upgrades and TSIS development

4.3.3 Develop Eco-Drive Algorithms and Application for Trucks

In previous research efforts, UCR has developed Eco-Drive algorithms for passenger vehicles. In this project, the Contractor shall coordinate with UCR is tasked to develop Eco-Drive algorithms specifically for drayage trucks, taking into account their unique dynamics and fuel consumption characteristics. The algorithms shall use SPaT information along with the information about the current position of the truck (from on-board GPS), the distance from the preceding vehicle (from on-board radar), and the relative location of the intersection (from on-board digital map) to determine the best course of action for passing through the intersection. The Contractor shall implement these algorithms as a mobile application (app) in the Android platform to be compatible with the FRATIS mobile app, and design and implement the software architecture and graphical user interface of the app. The app shall be initially tested using a test vehicle and a test intersection at UCR facilities. Then, the Contractor shall prepare and submit to the Harbor Department a technical memorandum that describes the work performed..

Deliverables:

- Technical memorandum of work performed on algorithms for mobile application

4.3.4 Test Eco-Drive Application

The Contractor shall coordinate with UCR to perform additional tests of the Eco-Drive app at the actual demonstration sites near the port. These tests shall verify the proper communication of SPaT information from the intersection(s) to TSIS and the proper functioning of the Eco-Drive app when receiving SPaT information from TSIS in real time. The Contractor shall coordinate with UCR to prepare and submit to the Harbor Department a technical memorandum that describes the testing and its outcome.

Deliverables:

- Technical memorandum of testing procedures and results

4.4.1 List of Participating Trucking Companies with Consent

The Contractor shall identify the list of participating trucking companies from the list of GEOSTAMP current users:

- Identifying which truck companies would best help the project
- Coordinate with Harbor Trucking Association on getting truck companies consent

Deliverables:

- List of participating trucking companies with consent

4.4.2 Set of Semi-Processed Data for Preliminary Analysis

The Contractor shall extract historical data from GEOSTAMP to be able to do preliminary statistical analysis to identify the aggregation models and algorithms:

- Define data requirements
- Create queries/stored procedures
- Export data from Database to Excel
- Review/Revise, as needed

Deliverables:

- Excel file of preliminary data

4.4.3 Final Requirements and Development Timeline

The Contractor shall perform the following:

- Define/refine data requirements
- Define API requirements
- Define+C9 security requirements
- Define technical architecture
- Create development project plan

Deliverables:

- Requirements Document
- Structure of overall timeline for deliverables of the solution

4.4.4 Data Feed of Historical Wait Time & Turn Time; Real-Time Wait-Time & Turn-Time

The Contractor shall aggregate the data based on the final aggregation models and algorithms to be able to provide the FRATIS optimization with historical data as well as real-time data of the marine terminal waiting time and turn time:

- Add opt-in/out flag in DB
- Add opt-in/out option to account screen
- Test & Deploy
- Send notifications to accounts with program details and instructions to opt in/out.
- Export list of participating accounts from DB to Excel.
- Create web services specification
- Implement historical web services
- Test historical web services
- Implement real-time web services
- Test real-time web services

Deliverables:

- Turn time data structure for the requirements of this solution
- Aggregated data from all vehicles

4.4.5 Secured Remote Access Mechanism for FRATIS (API, XML Feed, Etc.)

The Contractor shall provide a secured application programming interface (API) to enable FRATIS optimization to access Infomagnus historical and real-time waiting time and turn time of the marine terminals:

- Implement API security model
- Test security model

Deliverables:

- Integration platform for applications
- Security system to process request

4.5.1 Integrated Application Testing

The Contractor shall integrate all of the software code and automated procedures from other subcontractors, and testing the fully integrated application with all the subcomponents, including testing the API calls from FRATIS to Infomagnus. The Contractor shall coordinate with UCR to provide support to the ITS Team in the integration of the Eco-Drive app with the FRATIS mobile app. Eco-Drive shall run in the background and only be brought to the foreground when approaching a demonstration site intersection. The Contractor shall coordinate with Infomagnus to setup the test environment, deploy and validate web services, monitor application metrics and log for issues, and resolve issues and bugs. The Contractor shall coordinate with Infomagnus to prepare and submit to the Harbor Department a report of testing performed on integrated system structure and validation of functionality.

Deliverables:

- Integrated System Testing and Validation Document

4.5.2 Integrated application demonstration to stakeholders

The Contractor shall provide a live demo of the integrated Eco-FRATIS application to the stakeholders. The Contractor shall coordinate with UCR to provide personnel to support the ITS Team (PAI, UCR, and Infomagnus) in the demonstration of the Eco-Drive feature in the integrated application. The Contractor shall coordinate with Infomagnus to configure, setup, test and make available requirements for integrated application demo to stakeholders.

Deliverables:

- Demonstration of Final Eco-FRATIS Application

4.5.3 Integrated application deployment and training

The Contractor shall deploy the Eco-FRATIS back-office application as a web-based application and deploy the Eco-FRATIS tablets and the driver mobile application. The Contractor shall provide training for all the participating users and drivers, the full system shall be deployed after the training sessions are completed. The Contractor shall coordinate with UCR to identify a subset of 20 trucks that shall have

access to the Eco-Drive feature within Eco-FRATIS, These trucks shall have radars and on-board computing devices installed. The Contractor shall coordinate with UCR to provide personnel support during driver training sessions, especially on how to use the Eco-Drive feature in the Eco-FRATIS application. The Contractor shall coordinate with Infomagnus to provide technical and development articles, as well as tech user based training material to work with the web services and integration system. The Contractor shall procure 100 Tablets for Truck Deployment and shall install the driver mobile application and all the other supporting applications:

Tablets bundle specifications:

- Samsung Tablet Tab E, 8"
- Protective rugged cover w/ Velcro
- 12 Month Data Plan
- Co-pilot Truck Navigation Application w/Traffic
- Remote Deployment and Locking Service

Deliverables:

- Final application deployed to all participants
- 100 tablets deployed to drivers

4.5.4 Data collections support and analysis on environmental impact

FRATIS shall be deployed and used by participants for a period of one year. The Contractor shall provide training and support to participating trucking company's dispatchers, operations staff, and truck drivers. The Contractor shall coordinate with UCR to provide support to the ITS Team in the collection of vehicle operation data through the Eco-FRATIS application for the duration of the demonstration period. The Contractor shall coordinate with UCR to use the California Air Resources Board (CAR)'s Emission Factor (EMFAC) model to estimate energy and emission reduction benefits of Eco-FRATIS based on the collected data. The Contractor shall coordinate with Infomagnus to provide relevant documentation and data collection assistance for the development team. Comprehensive Meta-data shall be collected, archived, validated, and analyzed during the pilot period. Provide support to the project participants.

Deliverables:

- Data Collection (12 months)
 - Total time per truck
 - Total waiting time per truck
 - Turn time per truck
 - Fuel consumption (derived from other measures)
 - Emissions (derived from other measures)
 - Specific jobs and economic development resulting from this project
- Analysis on Environmental Impact
- Pre-deployment baseline data and post-deployment baseline data

4.5.5 Draft and Final Report

The Contractor shall prepare detailed documentation of project outcome, findings, and conclusions. This includes stakeholder engagement, development, integration, testing, demonstration, deployment, and data collection and analysis. This analysis shall cover quantitative analysis of reduced fuel consumption and emissions by participating trucks, increased productivity, decreased wait time, and related benefits to California. The Contractor shall coordinate with UCR to coauthor the project Draft and Final Reports by describing all aspects of UCR's work. The Contractor shall coordinate with Infomagnus to provide architectural diagrams and content for the Final Report. The Contractor shall provide a draft of the Final Report for the feedback from the Harbor Department and submit to the Harbor Department the Final Report and final invoicing.

Deliverables:

- Draft Report
- Final Report

Scope of Work

Eco-Drive Component in Eco-FRATIS Drayage Truck Efficiency ITS Demonstration

1. Introduction

The Eco-FRATIS Drayage Truck Efficiency ITS Demonstration shall provide a drayage solution that integrates and extends the capabilities and potential benefits of three existing systems: (1) FRATIS, developed by Productivity Apex, Inc. (PAI), which manages drayage fleet operation by optimizing truck dispatch time and arrival at the marine terminal as well as drayage sequence and routes; (2) GEOSTAMP, developed by Infomagnus, which provides real-time truck travel time and terminal turn time information; and (3) Eco-Drive, developed by the University of California at Riverside (UCR), which uses traffic signal phase and timing (SPaT) information to optimize speed profiles of trucks when traveling on signalized arterial corridors. The integrated system, shown in Figure 1, shall be demonstrated on 100 drayage trucks for 12 months, during which data shall be collected to determine drayage productivity as well as truck energy consumption and emission benefits.

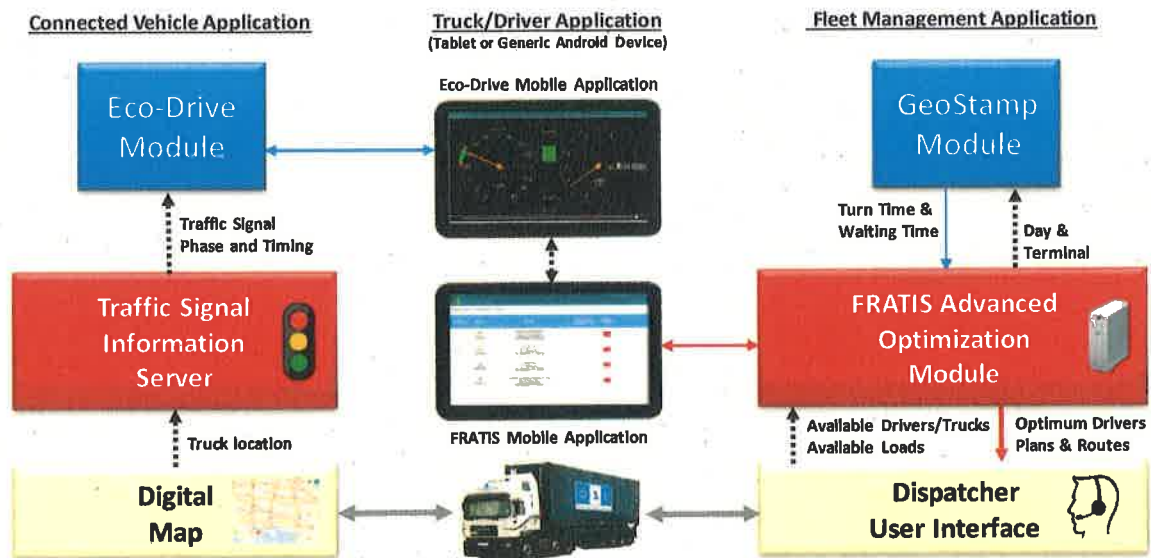


Figure 1. High-level architecture of Eco-FRATIS

In this project, UCR shall work with the other ITS Team partners to perform the development and integration work, with assistance and coordination as necessary from the staff of the City of Los Angeles Harbor Department (Harbor Department) and the Los Angeles County Metropolitan Transportation Authority (LA Metro). The integrated system shall be designed and developed based on the needs and capabilities of key stakeholders at the San Pedro Bay Complex aligned with the goals and objectives of this program set forth by the California Energy Commission (CEC).

2. Eco-Drive Technology

Nearly 7 billion hours of delay and more than 3 billion gallons of fuel were wasted in 2015 due to traffic congestion in the U.S., a significant portion of which is due to delays at traffic signals. Researchers at UCR have developed "Eco-Drive", an intelligent driver assistance system that uses SPaT information from upcoming traffic signals to determine the best driving speed profile to pass through the intersections. The system has been previously developed for passenger vehicles and tested both in a controlled environment (without other vehicles) and in real-world traffic. The results show travel time savings of 10-40% and fuel savings of 5-20% on average for the test vehicle.

In the near future, vehicles will be able to receive real-time SPaT information from traffic signals in many U.S. cities through some form of connectivity such as localized broadcast by the traffic signals and cellular networks. The Eco-Drive system uses this SPaT information along with the information about the current position of the vehicle (from on-board GPS), the distance from the preceding vehicle (from on-board radar), and the relative location of the intersection (from on-board digital map) to determine the best course of action from one of the four possible scenarios shown in Figure 2. These are:

- 1) slowing down in advance so that the vehicle reaches the intersection just when the signal turns green;
- 2) speeding up (while staying under the speed limit) to pass through the intersection before the signal turn red;
- 3) cruising through the green light; or
- 4) coasting to a stop if the red light is truly unavoidable.

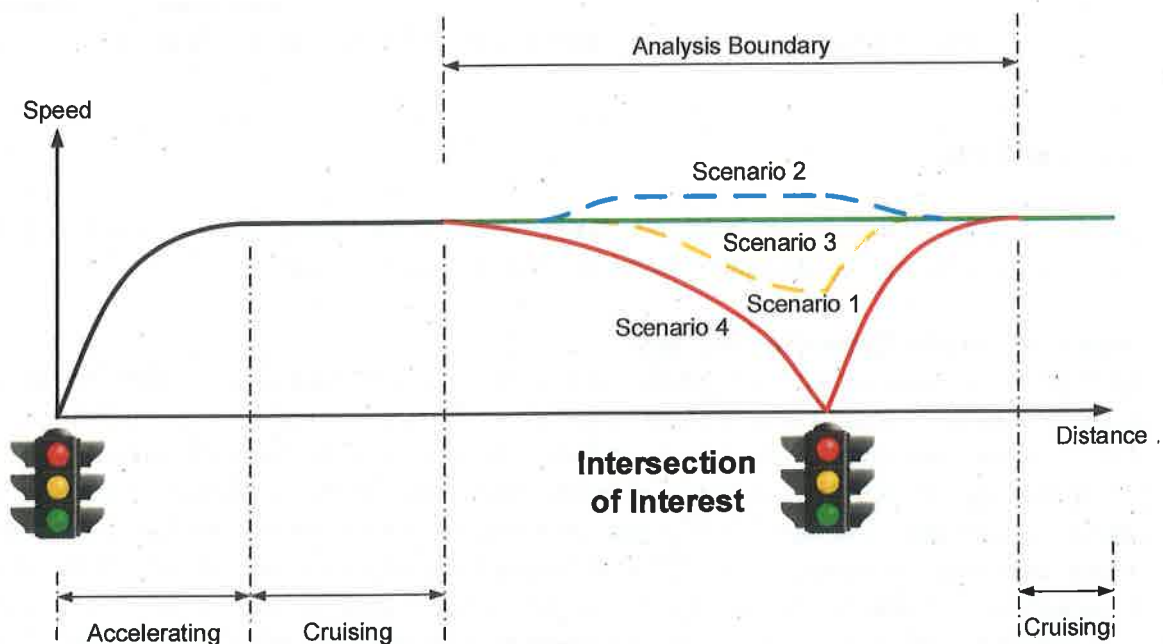


Figure 2: Possible courses of action when driving through an intersection with traffic signal

Once the Eco-Drive system has determined the best course of action, it then designs the best driving speed profile that would minimize delay and fuel consumption without compromising safety. After that, the system provides recommendation in terms of advisory driving speed to the driver through a display (see Figure 3). An advanced version of the system that interfaces directly with the vehicle's control modules can also enable the vehicle to follow the advisory driving speed automatically.

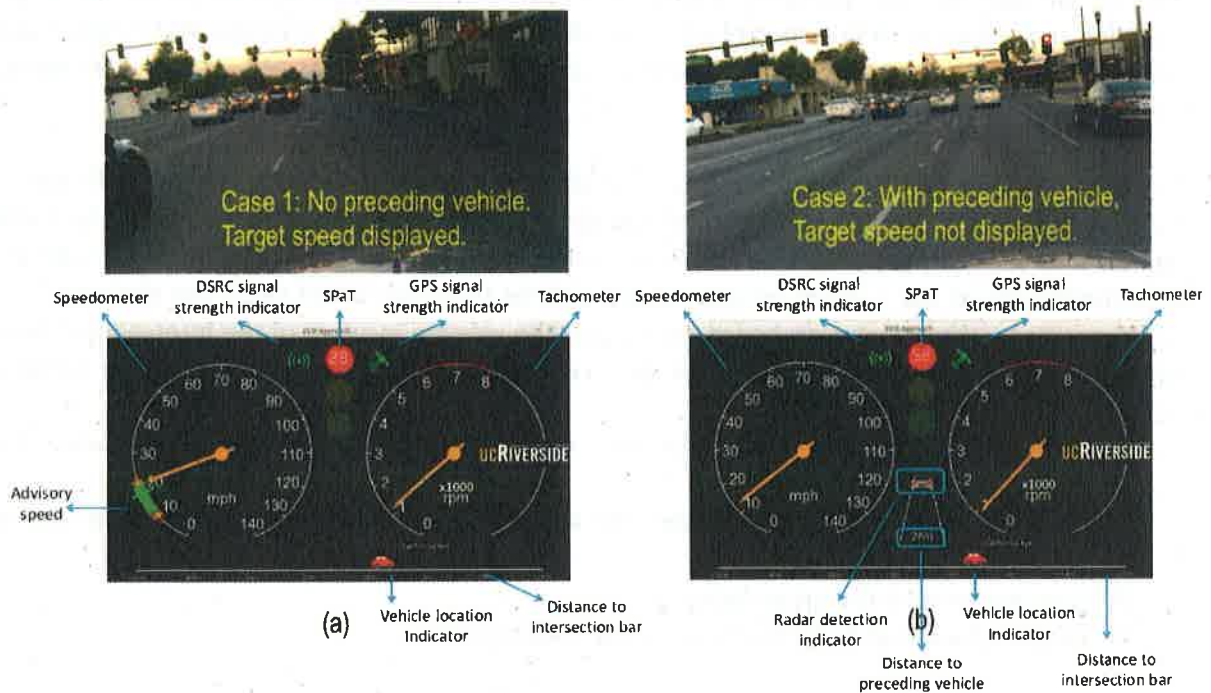


Figure 3: System displays when driving with and without preceding vehicle

3. Project Tasks

In this project, UCR shall perform nine tasks as described below. Then, Table 1 provides a summary of deliverables associated with each task and their due dates.

Task 1: Determine Demonstration Sites

UCR shall coordinate with LA Metro and other relevant agencies to identify up to 10 intersections to be used as the demonstration sites. The selection of the intersections shall take into consideration whether they are on major truck routes around the port, level of traffic, type of traffic signal control, geometric characteristics, etc. With assistance from the owner agencies, UCR shall evaluate traffic signal controllers at the selected intersections to identify equipment upgrade needs. Also, UCR shall survey the geographic coordinates of the selected intersections for use in the Eco-Drive calculation. UCR shall prepare a list of the selected intersections used as demonstration sites along with their equipment upgrade needs for each

intersection shall be prepared and submitted in coordination with PAI to the Harbor Department.

Task 2: Develop Traffic Signal Information Server

In coordination with the owner agencies, UCR shall purchase necessary supplies and perform the upgrade of the selected demonstration site traffic signal controllers in order for them to communicate SPaT information to the backend Traffic Signal Information Server (TSIS) in real time. UCR shall develop TSIS to receive, store, and disseminate the SPaT information, thus allow authorized users (e.g., Eco-Drive app on board a truck) to query such information in real time. At the end of this task, UCR, in coordination with PAI, shall prepare and submit to the Harbor Department a technical memorandum describing the traffic signal controller upgrade and the TSIS (SPaT server) development.

Task 3: Develop Eco-Drive Algorithms and Application for Trucks

In previous research efforts, UCR has developed Eco-Drive algorithms for passenger vehicles. In this project, UCR shall develop Eco-Drive algorithms specifically for drayage trucks, taking into account their unique dynamics and fuel consumption characteristics. The algorithms shall use SPaT information along with the information about the current position of the truck (from on-board GPS), the distance from the preceding vehicle (from on-board radar), and the relative location of the intersection (from on-board digital map) to determine the best course of action for passing through the intersection. UCR shall implement these algorithms as a mobile application (app) in the Android platform to be compatible with the FRATIS mobile app. UCR shall also design and implement the software architecture and graphical user interface of the app. The app shall be initially tested using a test vehicle and a test intersection at UCR facilities. Then, a technical memorandum that describes the work performed on Eco-Drive algorithms, application design, and software architecture shall be prepared and submitted in coordination with PAI to the Harbor Department.

Task 4: Test Eco-Drive Application

UCR shall perform additional tests of the Eco-Drive app at the actual demonstration sites near the port. These tests shall verify the proper communication of SPaT information from the intersection(s) to TSIS and the proper functioning of the Eco-Drive app when receiving SPaT information from TSIS in real time. UCR in coordination with PAI shall then prepare and submit to the Harbor Department a technical memorandum that describes the testing of the Eco-Drive mobile application and its outcome.

Task 5: Integrate Eco-Drive Application into Eco-FRATIS Framework

UCR shall provide support to the ITS Team in the integration of the Eco-Drive app with the FRATIS mobile app. After the integration, Eco-Drive shall become a feature in the integrated Eco-FRATIS app. UCR shall work with PAI to design concepts of operation of the integrated app and its software architecture. It is envisioned that the Eco-Drive feature shall run in the background and only be brought to the foreground when approaching the intersections in the demonstration sites.

Task 6: Support Eco-FRATIS Pilot Demonstration

UCR shall provide personnel to support the ITS Team in the demonstration of the Eco-Drive feature in the integrated app to stakeholders.

Task 7: Support Eco-FRATIS Deployment

UCR shall provide support to the ITS Team in the preparation of Eco-FRATIS demonstration on real drayage trucks. This includes conducting an experimental design for evaluating real-world impacts of the Eco-Drive feature and providing training to truck drivers on how to use the Eco-Drive feature. Specifically, UCR shall work with PAI to identify a subset of 20 trucks that shall have access to the Eco-Drive feature in Eco-FRATIS. UCR shall then instrument a radar and an on-board computing device on each of these 20 trucks. In addition, UCR shall provide personnel to support PAI during driver training sessions, especially on how to use the Eco-Drive feature in the Eco-FRATIS app.

Task 8: Collect and Analyze Data

UCR shall provide support to the ITS Team in the collection of vehicle operation data through the Eco-FRATIS app throughout the demonstration period. We shall also use the California Air Resources Board (CAR)'s Emission FACTor (EMFAC) model to estimate energy and emission reduction benefits of Eco-FRATIS based on the collected data. In the estimation, UCR shall attempt to differentiate the energy and emission reductions of the Eco-Drive feature from the other features.

Task 9: Prepare Final Report

UCR shall coauthor with PAI, Infomagnus, and Harbor Department the project Final Report by describing all aspects of UCR's work including the development, testing, demonstration, data collection, data analysis, and results of Eco-Drive.

Table 1. List of project tasks and the associated deliverables

Task	Deliverable	Due Date (Months from Start Date)
1. Determine Demonstration Sites	List of intersections to be used as the demonstration sites and list of equipment upgrades needed at each intersection	1
2. Develop Traffic Signal Information Server	Technical memorandum on traffic signal controller upgrade and SPaT server development	3
3. Develop Eco-Drive Algorithm and Application for Trucks	Technical memorandum of Eco-Drive algorithms, application design, and software architecture and demonstration of mobile application	9
4. Test Eco-Drive Application	Technical memorandum on testing of the Eco-Drive mobile application and test results	12
5. Integrate Eco-Drive Application into Eco-FRATIS Framework	Support of integrated application for testing	13

6. Support Eco-FRATIS Pilot Demonstration	Integrated application demonstration to stakeholders	15
7. Support Eco-FRATIS Deployment	Support of integrated application deployment and training	18
8. Collect and Analyze Data	Data collection support and analysis on environmental impact	30
9. Prepare Final Report	Contribution to Final Report	31

Exhibit D



Metro

Los Angeles County
Metropolitan Transportation Authority

One Gateway Plaza
Los Angeles, CA 90012-2952

213.922.2000 Tel
metro.net

October 4, 2016

Kerry Cartwright, P.E.
Port of Los Angeles
425 S. Palos Verdes Street
San Pedro, California 90733

**Subject: California Energy Commission – Freight Transportation Projects at California Seaports Grant:
Letter of Commitment**

Dear Mr. Cartwright,

The Los Angeles County Metropolitan Transportation Authority (Metro) is providing this letter of commitment for the Eco-FRATIS Drayage Truck Efficiency project. We are pleased to hear that the Port of Los Angeles (POLA) was selected by the California Energy Commission (CEC) for the Freight Transportation Projects at California Seaports Grant, and look forward to working with you to deploy intelligent transportation systems (ITS) solutions.

As part of the POLA's project, approximately \$1.0 million was funded for ITS and connected vehicle technology, which would provide a drayage solution that integrates and extends the capabilities and potential benefits of the Freight Advanced Travel Information System (FRATIS) project, Harbor Trucking Association (HTA)/Infomagnus Geostamp application, and University of California Riverside (UCR) Eco-Driving application.

In Metro's Letter of Support to the CEC for this grant application submittal, dated March 21, 2016, Metro committed to provide funding support in the form of hard match in the amount of \$240,000. In addition, Metro will provide staff support towards stakeholder coordination and development of ITS concepts identified in the Gateway Cities Technology Plan for Goods Movement. We will prepare the funding agreement between Metro and POLA, and forward it to your attention for review and approval.

We look forward to working with POLA and CEC to develop and deploy a success ITS pilot project. If you have any questions, please contact Metro's Project Manager, Ed Alegre, at 213-922-7902.

Sincerely,

Abdollah Ansari
Managing Executive Director

cc: Steve Gota, Deputy Executive Officer, Highway Program
Ernesto Chaves, Senior Director, Highway Program
Ed Alegre, Senior Manager, Highway Program

March 18, 2016

RE: Letter of support for the CEC grant GFO-15-604

To Whom It May Concern:

On January 7, 2016, the State of California Energy Commission (CEC) released a grant solicitation for Alternative and Renewable Fuel and Vehicle Technology Program for Freight Transportation Projects at California Seaports (GFO-15-604). The City of Los Angeles Harbor Department is submitting a \$5 million proposal under the MHD Vehicle Demonstration category to fund the deployment of twenty yard tractors utilizing the Cummins-Westport 9.0 liter near-zero emission liquefied natural gas and five zero-emission battery electric yard tractors to validate their technical or market viability prior to commercial vehicle or component production.

The Harbor Department also plans to apply for \$1 million to demonstrate intelligent transportation systems (ITS). The proposed ITS Demonstration will provide a drayage solution that integrates and extends the capabilities and potential benefits of three existing systems. One of these systems is one that we have developed here at UC Riverside. This "Eco-Drive" application uses traffic signal phase and timing information to optimize acceleration/deceleration of trucks that travel on signalized arterial corridors. This system was originally developed with funding from the United States Department of Transportation under a competitively solicited grant.

We will work with the other ITS team partners to perform the integration work, with assistance and coordination as necessary from Port staff and the Los Angeles County Metropolitan Transportation Authority. The integrated system will be designed based on the needs and capabilities of key stakeholders at the San Pedro Bay Complex (Port of Los Angeles and Port of Long Beach) aligned with the goals and objectives of the CEC. The goals of the ITS applications are to provide: 1) reduced truck fuel consumption and emissions to/from marine terminals, by using the most eco-friendly driving speeds; 2) increased marine terminal throughput, by optimizing truck dispatch time and arrival at the marine terminal; and 3) increased truck productivity and number of turns per truck, by optimizing drayage routes and sequence.

In support of the proposed ITS Demonstration, we will contribute a match share funding of \$86,538 for two graduate student researchers working on the Demonstration for one year. We will also contribute another match share funding of \$3,600 for 30 tablets to be used during the Demonstration. Therefore, our total match share contribution is \$90,138. We are pleased to be part of the ITS team in this proposal, and look forward to working with the team on this opportunity. Please contact me for any questions.

Sincerely,



Matthew Barth
Yeager Families Professor of Engineering
Director, Center for Environmental Research and Technology
University of California, Riverside



March 21, 2016

Letter of support and commitment for the California Energy Commission grant GFO-15-604

To Whom It May Concern,

The intent of this letter is to express our firm commitment to the Port of Los Angeles' application in response to the California Energy Commission's Freight Transportation Projects at California Seaports Grant Funding Opportunity Notice (GFO-15-604 for the Intelligent Transportation Systems and Technologies (ITS) category. Nearly \$18 million will be available statewide for this solicitation to: 1) demonstrate pre-commercial medium- and heavy-duty vehicle technologies (MHD Vehicle Demonstration); 2) demonstrate intelligent transportation systems and technologies (ITS Demonstration); and 3) deployment of commercially available natural gas vehicles (NGV). All projects must be for freight transportation projects connected a California seaport.

The Harbor Department also plans to apply for \$1 million to demonstrate ITS. The proposed ITS Demonstration will provide a drayage solution that integrates and extends the capabilities and potential benefits of three existing systems. These systems will leverage data from the Ports of Los Angeles and Long Beach terminals, which is captured by **GeoStamp**. The data to be integrated is turn-time feeds through a programmatic structure allowing for complex queries.

Integration work will be performed by InfoMagnus and the other ITS teams, with assistance and coordination as necessary from Port staff and the Los Angeles County Metropolitan Transportation Authority. The integrated system is designed based on the needs and capabilities of key stakeholders at the San Pedro Bay Complex (Port of Los Angeles and Port of Long Beach) aligned with the overall goals and objectives of California Energy Commission. The goals of the ITS is to provide: 1) reduced truck fuel consumption and emissions to/from marine terminals, by using the most eco-friendly truck routes; 2) increased marine terminal throughput, by optimizing truck dispatch time and arrival at the marine terminal; and 3) increased truck power productivity and number of turns per truck, by optimizing drayage routes and sequence.

Match share funding will be contributed in support of the project in the amount of \$37,628, this is for direct labor, Sal Manzo and Kaveh Mahjoob, will be providing for the duration of the project.

We look forward to working with the other ITS project teams and the Ports of Los Angeles and Long Beach on the deployment of **GeoStamp**.

Sincerely,
Sal Manzo

Sal Manzo.
Co-Founder

3/23/2016



Harbor
Trucking
Association

On January 7, 2016, the State of California Energy Commission (CEC) released a grant solicitation for Alternative and Renewable Fuel and Vehicle Technology Program for Freight Transportation Projects at California Seaports (GFO-15-604). Nearly \$18 million will be available statewide for this solicitation to: 1) demonstrate pre-commercial medium- and heavy-duty vehicle technologies (MHD Vehicle Demonstration); 2) demonstrate intelligent transportation systems and technologies (ITS Demonstration); and 3) deployment of commercially available natural gas vehicles (NGV). All projects must be for freight transportation projects connected a California seaport.

Projects that propose to enhance market acceptance and deployment of advanced vehicle technologies that will reduce greenhouse gas (GHG) emissions, reduce petroleum use and benefit disadvantaged communities (DAC) will be considered under this solicitation. The project must be in or near DAC to receive funding. There is also a 25 percent minimum funding match requirement that may be fulfilled through in-kind services, equipment purchases, labor costs, alternative fuel costs and electricity services during the term of the grant agreement. The grant application is due to the CEC on March 24, 2016. Preliminary grantee award selection will be made on April 7, 2016. All work must be scheduled for completion by no later than March 31, 2020.

The City of Los Angeles Harbor Department (Harbor Department) plans to apply for \$5 million under the MHD Vehicle Demonstration category to fund the deployment of twenty yard tractors utilizing the Cummins-Westport 9.0 liter near-zero emission liquefied natural gas and five zero-emission battery electric yard tractors to validate their technical or market viability prior to commercial vehicle or component production. The liquefied natural gas tractors will be fueled with renewable natural gas resulting in lower GHG footprint compared to pipeline natural gas. The Harbor Department also plans to apply for \$1 million to demonstrate ITS. The proposed ITS Demonstration will provide a drayage solution that integrates and extends the capabilities and potential benefits of the following three existing systems:

- Los Angeles Freight Advanced Traveler Information System (FRATIS) suite of applications developed and currently being demonstrated in the Ports of Los Angeles and Long Beach (POLA/POLB) by ProductivityApex on behalf of the United States Department of Transportation (USDOT) (see attached FRATIS description)
 - This system was developed, was initially demonstrated at the POLA YTI terminal, and is continuing to be demonstrated in the POLA/POLB via a USDOT competitively solicited grant
- Harbor Trucking Association (HTA)/Infomagnus Geostamp application, which entails the provision of real-time truck travel and terminal turn times via an automated mobile smart device application (i.e., real-time locator data via mobile smart device GPS)
 - Geostamp is presently being launched by the HTA, and is a user paid service; the Harbor Department will aggressively seek to leverage this grant to obtain a complementary subscription
 - The HTA selected Infomagnus via a competitive request for proposals
- University of California Riverside's ECO-Drive application, which entails using traffic signal timing information to optimize acceleration/deceleration of trucks
 - This system was developed and tested via a United States Department of Energy competitively solicited grant

These three IT providers will perform the integration work, with assistance and coordination as necessary from Port staff and the Los Angeles County Metropolitan Transportation Authority. The integrated system is designed based on the needs and capabilities of key stakeholders at the San Pedro Bay Complex (Port of Los Angeles and Port of Long Beach) aligned with the overall goals and objectives of California Energy Commission. The goals of the ITS is to provide: 1) reduced truck fuel consumption and emissions to/from marine terminals, by using the most eco-friendly truck routes; 2)

increased marine terminal throughput, by optimizing truck dispatch time and arrival at the marine terminal; and 3) increased truck power productivity and number of turns per truck, by optimizing drayage routes and sequence.

Sincerely,

A handwritten signature in black ink, appearing to read 'W. LaBar', with a long horizontal flourish extending to the right.

Weston LaBar
Executive Director

EXHIBIT E

SMALL/VERY SMALL BUSINESS ENTERPRISE PROGRAM AND LOCAL BUSINESS PREFERENCE PROGRAM

(1) SMALL/VERY SMALL BUSINESS ENTERPRISE PROGRAM

The City of Los Angeles Harbor Department is committed to creating an environment that provides all individuals and businesses open access to the business opportunities available at the Harbor Department in a manner that reflects the diversity of the City of Los Angeles. The Harbor Department's Small Business Enterprise (SBE) Program was created to provide additional opportunities for small businesses to participate in professional service and construction contracts. An overall Department goal of 25% SBE participation, including 5% Very Small Business Enterprise (VSBE) participation, has been established for the Program. The specific goal or requirement for each contract opportunity may be higher or lower based on the scope of work.

It is the policy of the Harbor Department to solicit participation in the performance of all service contracts by all individuals and businesses, including, but not limited to, SBEs, VSBEs, women-owned business enterprises (WBEs), minority-owned business enterprises (MBEs), and disabled veteran business enterprises (DVBEs). The SBE Program allows the Harbor Department to target small business participation, including MBEs, WBEs, and DVBEs, more effectively. It is the intent of the Harbor Department to make it easier for small businesses to participate in contracts by providing education and assistance on how to do business with the City, and ensuring that payments to small businesses are processed in a timely manner. **In order to ensure the highest participation of SBE/VSBE/MBE/WBE/DVBEs, all proposers shall utilize the City's contracts management and opportunities database, the Los Angeles Business Assistance Virtual Network (LABAVN), at <http://www.labavn.org>, to outreach to potential subcontractors.**

The Harbor Department defines a SBE as an independently owned and operated business that is not dominant in its field and meets criteria set forth by the Small Business Administration in Title 13, Code of Federal Regulations, Part 121. Go to www.sba.gov for more information. The Harbor Department defines a VSBE based on the State of California's Micro-business definition which is 1) a small business that has average annual gross receipts of \$3,500,000 or less within the previous three years, or (2) a small business manufacturer with 25 or fewer employees.

The SBE Program is a results-oriented program, requiring consultants who receive contracts from the Harbor Department to perform outreach and utilize certified small businesses.

Consultant shall be responsible for determining the SBE status of its subconsultants for purposes of meeting the small business requirement. Subconsultants must qualify as an SBE based on the type of services that they will be performing under the Agreement. All business participation will be determined by the percentage of the total amount of compensation under the agreement paid to SBEs. The Consultant shall not substitute an SBE firm without obtaining prior approval of the City. A request for substitution must be based upon demonstrated good cause. If substitution is permitted, Consultant shall endeavor to make an in-kind substitution for the substituted SBE.

(2) LOCAL BUSINESS PREFERENCE PROGRAM:

The Harbor Department is committed to maximizing opportunities for local and regional businesses, as well as encouraging local and regional businesses to locate and operate within the Southern California region. It is the policy of the Harbor Department to support an increase in local and regional jobs. The Harbor Department's Local Business Preference Program (LBPP) aims to benefit the Southern California region by increasing jobs and expenditures within the local and regional private sector.

The Harbor Department defines a LBE as:

- (a) A business headquartered within Los Angeles, Orange, Riverside, San Bernardino, or Ventura Counties; or
- (b) A business that has at least 50 full-time employees, or 25 full-time employees for specialty marine

contracting firms, working in Los Angeles, Orange, Riverside, San Bernardino, or Ventura Counties.

In order for Harbor Department staff to determine the appropriate LBE preference, Consultant shall complete, sign, notarize (where applicable) and submit the attached Affidavit and Contractor Description Form. The Affidavit and Contractor Description Form will signify the LBE status of the Consultant and subconsultants. Prior to contract award, the Harbor Department will verify the status of all LBEs.

Consultant shall complete, sign, notarize (where applicable) and submit as part of the executed agreement the attached Affidavit and Contractor Description Form. The Contractor Description Form, when signed, will signify the Consultant's intent to comply with the SBE and LBPP requirements. Prior to contract award, the Harbor Department will verify the status of all SBEs. In addition, prior to being awarded a contract with the Harbor Department, all contractors and subcontractors must be registered on LABAVN.

In the event of Consultant's noncompliance during the performance of the Agreement, Consultant shall be considered in material breach of contract. In addition to any other remedy available to City under this Agreement or by operation of law, the City may withhold invoice payments to Consultant until noncompliance is corrected, and assess the costs of City's audit of books and records of Consultant and its subconsultants. In the event the Consultant falsifies or misrepresents information contained in any form or other willful noncompliance as determined by City, City may disqualify the Consultant from participation in City contracts for a period of up to five (5) years.

AFFIDAVIT OF COMPANY STATUS

"The undersigned declares under penalty of perjury pursuant to the laws of the State of California that the following information and information contained on **the attached Contractor Description Form** is true and correct and include all material information necessary to identify and explain the operations of

Name of Firm

as well as the ownership thereof. Further, the undersigned agrees to provide either through the prime consultant or, directly to the Harbor Department, complete and accurate information regarding ownership in the named firm, any proposed changes of the ownership and to permit the audit and examination of firm ownership documents in association with this agreement."

(1) **Small/Very Small Business Enterprise Program:** Please indicate the ownership of your company. Please check all that apply. At least one box must be checked:

SBE VSBE MBE WBE DVBE OBE

- A Small Business Enterprise (SBE) is an independently owned and operated business that is not dominant in its field and meets criteria set forth by the Small Business Administration in Title 13, Code of Federal Regulations, Part 121.
- A Very Small Business Enterprise (VSBE) is 1) a small business that has average annual gross receipts of \$3,500,000 or less within the previous three years, or (2) a small business manufacturer with 25 or fewer employees.
- A Minority Business Enterprise (MBE) is defined as a business in which a minority owns and controls at least 51% of the business. A Woman Business (WBE) is defined as a business in which a woman owns and controls at least 51% of the business. For the purpose of this project, a minority includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, The Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- A Disabled Veteran Business Enterprise (DVBE) is defined as a business in which a disabled veteran owns at least 51% of the business, and the daily business operations are managed and controlled by one or more disabled veterans.
- An OBE (Other Business Enterprise) is any enterprise that is neither an SBE, VSBE, MBE, WBE, or DVBE.

Contractor Description Form

PRIME CONTRACTOR

Contract #: _____ Award Date: _____ Contract Term: _____
Contract Title: _____
Business Name: _____ Award Total: \$ _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email Address: _____

SUBCONTRACTOR

Business Name: _____ Award Total: \$ _____
Services to be provided: _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email Address: _____

SUBCONTRACTOR

Business Name: _____ Award Total: \$ _____
Services to be provided: _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email address: _____

Contractor Description Form

SUBCONTRACTOR

Business Name: _____ Award Total: \$ _____
Services to be provided: _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email Address: _____

SUBCONTRACTOR

Business Name: _____ Award Total: \$ _____
Services to be provided: _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email address: _____

SUBCONTRACTOR

Business Name: _____ Award Total: \$ _____
Services to be provided: _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email address: _____

EXHIBIT F - AFFIRMATIVE ACTION PROGRAM PROVISIONS

Sec. 10.8.4 Affirmative Action Program Provisions.

Every non-construction contract with or on behalf of the City of Los Angeles for which the consideration is \$100,000 or more and every construction contract with or on behalf of the City of Los Angeles for which the consideration is \$5,000 or more shall contain the following provisions which shall be designated as the AFFIRMATIVE ACTION PROGRAM provisions of such contract:

- A. During the performance of City contract, the contractor certifies and represents that the contractor and each subcontractor hereunder will adhere to an affirmative action program to ensure that in its employment practices, persons are employed and employees are treated equally and without regard to or because of race, religion, ancestry, national origin, sex, sexual orientation, age, disability, marital status, domestic partner status, or medical condition.
 - 1. This provision applies to work or services performed or materials manufactured or assembled in the United States.
 - 2. Nothing in this section shall require or prohibit the establishment of new classifications of employees in any given craft, work or service category.
 - 3. The contractor shall post a copy of Paragraph A hereof in conspicuous places at its place of business available to employees and applicants for employment.
- B. The contractor will, in all solicitations or advertisements for employees placed by or on behalf of the contractor, state that all qualified applicants will receive consideration for employment without regard to their race, religion, ancestry, national origin, sex, sexual orientation, age, disability, marital status, domestic partner status, or medical condition.
- C. As part of the City's supplier registration process, and/or at the request of the awarding authority or the Office of Contract Compliance, the contractor shall certify on an electronic or hard copy form to be supplied, that the contractor has not discriminated in the performance of City contracts against any employee or applicant for employment on the basis or because of race, religion, ancestry, national origin, sex, sexual orientation, age, disability, marital status, domestic partner status, or medical condition.
- D. The contractor shall permit access to and may be required to provide certified copies of all of its records pertaining to employment and to its employment practices by the awarding authority or the Office of Contract Compliance, for the purpose of investigation to ascertain compliance with the Affirmative Action Program provisions of City contracts, and on their or either of their request to provide evidence that it has or will comply therewith.

- E. The failure of any contractor to comply with the Affirmative Action Program provisions of City contracts may be deemed to be a material breach of contract. Such failure shall only be established upon a finding to that effect by the awarding authority, on the basis of its own investigation or that of the Board of Public Works, Office of Contract Compliance. No such finding shall be made except upon a full and fair hearing after notice and an opportunity to be heard has been given to the contractor.
- F. Upon a finding duly made that the contractor has breached the Affirmative Action Program provisions of a City contract, the contract may be forthwith cancelled, terminated or suspended, in whole or in part, by the awarding authority, and all monies due or to become due hereunder may be forwarded to and retained by the City of Los Angeles. In addition thereto, such breach may be the basis for a determination by the awarding authority or the Board of Public Works that the said contractor is an irresponsible bidder or proposer pursuant to the provisions of Section 371 of the Los Angeles City Charter. In the event of such determination, such contractor shall be disqualified from being awarded a contract with the City of Los Angeles for a period of two years, or until he or she shall establish and carry out a program in conformance with the provisions hereof.
- G. In the event of a finding by the Fair Employment and Housing Commission of the State of California, or the Board of Public Works of the City of Los Angeles, or any court of competent jurisdiction, that the contractor has been guilty of a willful violation of the California Fair Employment and Housing Act, or the Affirmative Action Program provisions of a City contract, there may be deducted from the amount payable to the contractor by the City of Los Angeles under the contract, a penalty of TEN DOLLARS (\$10.00) for each person for each calendar day on which such person was discriminated against in violation of the provisions of a City contract.
- H. Notwithstanding any other provisions of a City contract, the City of Los Angeles shall have any and all other remedies at law or in equity for any breach hereof.
- I. The Public Works Board of Commissioners shall promulgate rules and regulations through the Office of Contract Compliance and provide to the awarding authorities electronic and hard copy forms for the implementation of the Affirmative Action Program provisions of City contracts, and rules and regulations and forms shall, so far as practicable, be similar to those adopted in applicable Federal Executive Orders. No other rules, regulations or forms may be used by an awarding authority of the City to accomplish this contract compliance program.
- J. Nothing contained in City contracts shall be construed in any manner so as to require or permit any act which is prohibited by law.
- K. The Contractor shall submit an Affirmative Action Plan which shall meet the requirements of this chapter at the time it submits its bid or proposal or at the time it registers to do business with the City. The plan shall be subject to approval by the

Office of Contract Compliance prior to award of the contract. The awarding authority may also require contractors and suppliers to take part in a pre-registration, pre-bid, pre-proposal, or pre-award conference in order to develop, improve or implement a qualifying Affirmative Action Plan. Affirmative Action Programs developed pursuant to this section shall be effective for a period of twelve

months from the date of approval by the Office of Contract Compliance. In case of prior submission of a plan, the contractor may submit documentation that it has an Affirmative Action Plan approved by the Office of Contract Compliance within the previous twelve months. If the approval is 30 days or less from expiration, the contractor must submit a new Plan to the Office of Contract Compliance and that Plan must be approved before the contract is awarded.

1. Every contract of \$5,000 or more which may provide construction, demolition, renovation, conservation or major maintenance of any kind shall in addition comply with the requirements of Section 10.13 of the Los Angeles Administrative Code.
 2. A contractor may establish and adopt as its own Affirmative Action Plan, by affixing his or her signature thereto, an Affirmative Action Plan prepared and furnished by the Office of Contract Compliance, or it may prepare and submit its own Plan for approval.
- L. The Office of Contract Compliance shall annually supply the awarding authorities of the City with a list of contractors and suppliers who have developed Affirmative Action Programs. For each contractor and supplier the Office of Contract Compliance shall state the date the approval expires. The Office of Contract Compliance shall not withdraw its approval for any Affirmative Action Plan or change the Affirmative Action Plan after the date of contract award for the entire contract term without the mutual agreement of the awarding authority and the contractor.
- M. The Affirmative Action Plan required to be submitted hereunder and the pre-registration, pre-bid, pre-proposal or pre-award conference which may be required by the Board of Public Works, Office of Contract Compliance or the awarding authority shall, without limitation as to the subject or nature of employment activity, be concerned with such employment practices as:
1. Apprenticeship where approved programs are functioning, and other on-the-job training for non-apprenticeable occupations;
 2. Classroom preparation for the job when not apprenticeable;
 3. Pre-apprenticeship education and preparation;
 4. Upgrading training and opportunities;

5. Encouraging the use of contractors, subcontractors and suppliers of all racial and ethnic groups, provided, however, that any contract subject to this ordinance shall require the contractor, subcontractor or supplier to provide not less than the prevailing wage, working conditions and practices generally observed in private industries in the contractor's, subcontractor's or supplier's geographical area for such work;
 6. The entry of qualified women, minority and all other journeymen into the industry; and
 7. The provision of needed supplies or job conditions to permit persons with disabilities to be employed, and minimize the impact of any disability.
- N. Any adjustments which may be made in the contractor's or supplier's workforce to achieve the requirements of the City's Affirmative Action Contract Compliance Program in purchasing and construction shall be accomplished by either an increase in the size of the workforce or replacement of those employees who leave the workforce by reason of resignation, retirement or death and not by termination, layoff, demotion or change in grade.
- O. Affirmative Action Agreements resulting from the proposed Affirmative Action Plan or the pre-registration, pre-bid, pre-proposal or pre-award conferences shall not be confidential and may be publicized by the contractor at his or her discretion. Approved Affirmative Action Agreements become the property of the City and may be used at the discretion of the City in its Contract Compliance Affirmative Action Program.
- P. This ordinance shall not confer upon the City of Los Angeles or any Agency, Board or Commission thereof any power not otherwise provided by law to determine the legality of any existing collective bargaining agreement and shall have application only to discriminatory employment practices by contractors or suppliers engaged in the performance of City contracts.
- Q. All contractors subject to the provisions of this section shall include a like provision in all subcontracts awarded for work to be performed under the contract with the City and shall impose the same obligations, including but not limited to filing and reporting obligations, on the subcontractors as are applicable to the contractor. Failure of the contractor to comply with this requirement or to obtain the compliance of its subcontractors with all such obligations shall subject the contractor to the imposition of any and all sanctions allowed by law, including but not limited to termination of the contractor's contract with the City.

EXHIBIT G

SMALL/VERY SMALL BUSINESS ENTERPRISE PROGRAM AND LOCAL BUSINESS PREFERENCE PROGRAM

(1) SMALL/VERY SMALL BUSINESS ENTERPRISE PROGRAM

The City of Los Angeles Harbor Department is committed to creating an environment that provides all individuals and businesses open access to the business opportunities available at the Harbor Department in a manner that reflects the diversity of the City of Los Angeles. The Harbor Department's Small Business Enterprise (SBE) Program was created to provide additional opportunities for small businesses to participate in professional service and construction contracts. An overall Department goal of 25% SBE participation, including 5% Very Small Business Enterprise (VSBE) participation, has been established for the Program. The specific goal or requirement for each contract opportunity may be higher or lower based on the scope of work.

It is the policy of the Harbor Department to solicit participation in the performance of all service contracts by all individuals and businesses, including, but not limited to, SBEs, VSBEs, women-owned business enterprises (WBEs), minority-owned business enterprises (MBEs), and disabled veteran business enterprises (DVBEs). The SBE Program allows the Harbor Department to target small business participation, including MBEs, WBEs, and DVBEs, more effectively. It is the intent of the Harbor Department to make it easier for small businesses to participate in contracts by providing education and assistance on how to do business with the City, and ensuring that payments to small businesses are processed in a timely manner. **In order to ensure the highest participation of SBE/VSBE/MBE/WBE/DVBEs, all proposers shall utilize the City's contracts management and opportunities database, the Los Angeles Business Assistance Virtual Network (LABAVN), at <http://www.labavn.org>, to outreach to potential subcontractors.**

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(2) LOCAL BUSINESS PREFERENCE PROGRAM:

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The Harbor Department defines a LBE as:

- (a) A business headquartered within Los Angeles, Orange, Riverside, San Bernardino, or Ventura Counties; or
- (b) A business that has at least 50 full-time employees, or 25 full-time employees for specialty marine

contracting firms, working in Los Angeles, Orange, Riverside, San Bernardino, or Ventura Counties.

In order for Harbor Department staff to determine the appropriate LBE preference, Consultant shall complete, sign, notarize (where applicable) and submit the attached Affidavit and Contractor Description Form. The Affidavit and Contractor Description Form will signify the LBE status of the Consultant and subconsultants. Prior to contract award, the Harbor Department will verify the status of all LBEs.

Consultant shall complete, sign, notarize (where applicable) and submit as part of the executed agreement the attached Affidavit and Contractor Description Form. The Contractor Description Form, when signed, will signify the Consultant's intent to comply with the SBE and LBPP requirements. Prior to contract award, the Harbor Department will verify the status of all SBEs. In addition, prior to being awarded a contract with the Harbor Department, all contractors and subcontractors must be registered on LABAVN.

In the event of Consultant's noncompliance during the performance of the Agreement, Consultant shall be considered in material breach of contract. In addition to any other remedy available to City under this Agreement or by operation of law, the City may withhold invoice payments to Consultant until noncompliance is corrected, and assess the costs of City's audit of books and records of Consultant and its subconsultants. In the event the Consultant falsifies or misrepresents information contained in any form or other willful noncompliance as determined by City, City may disqualify the Consultant from participation in City contracts for a period of up to five (5) years.

AFFIDAVIT OF COMPANY STATUS

"The undersigned declares under penalty of perjury pursuant to the laws of the State of California that the following information and information contained on **the attached Contractor Description Form** is true and correct and include all material information necessary to identify and explain the operations of

Name of Firm

as well as the ownership thereof. Further, the undersigned agrees to provide either through the prime consultant or, directly to the Harbor Department, complete and accurate information regarding ownership in the named firm, any proposed changes of the ownership and to permit the audit and examination of firm ownership documents in association with this agreement."

(1) **Small/Very Small Business Enterprise Program:** Please indicate the ownership of your company. Please check all that apply. At least one box must be checked:

SBE VSBE MBE WBE DVBE OBE

- A Small Business Enterprise (SBE) is an independently owned and operated business that is not dominant in its field and meets criteria set forth by the Small Business Administration in Title 13, Code of Federal Regulations, Part 121.
- A Very Small Business Enterprise (VSBE) is 1) a small business that has average annual gross receipts of \$3,500,000 or less within the previous three years, or (2) a small business manufacturer with 25 or fewer employees.
- A Minority Business Enterprise (MBE) is defined as a business in which a minority owns and controls at least 51% of the business. A Woman Business (WBE) is defined as a business in which a woman owns and controls at least 51% of the business. For the purpose of this project, a minority includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin);
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish Culture or origin, regardless of race);
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, The Indian Subcontinent, or the Pacific Islands); and
 - (4) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).
- A Disabled Veteran Business Enterprise (DVBE) is defined as a business in which a disabled veteran owns at least 51% of the business, and the daily business operations are managed and controlled by one or more disabled veterans.
- An OBE (Other Business Enterprise) is any enterprise that is neither an SBE, VSBE, MBE, WBE, or DVBE.

(2) **Local Business Preference Program:** Please indicate the Local Business Enterprise status of your company.

Only one box must be checked:

LBE Non-LBE

- A Local Business Enterprise (LBE) is: (a) a business headquartered within Los Angeles, Orange, Riverside, San Bernardino, or Ventura Counties; or (b) a business that has at least 50 full-time employees, or 25 full-time employees for specialty marine contracting firms, working in Los Angeles, Orange, Riverside, San Bernardino, or Ventura Counties.
- A Non-LBE is any business that does not meet the definition of a LBE

Signature _____
Printed Name _____

Title _____
Date Signed _____

NOTARY

<p>STATE OF CALIFORNIA)) ss COUNTY OF LOS ANGELES)</p> <p>Place Notary Seal and/or Stamp Above</p>	<p>Subscribed and sworn to (or affirmed) before me on this _____ day of _____, 20__ by</p> <p>(1) _____ Name of Signer (1)</p> <p>Who proved to me on the basis of satisfactory evidence to be the person who appeared before me (.) (.)</p> <p>(and)</p> <p>(2) _____ Name of Signer (2)</p> <p>Who proved to me on the basis of satisfactory evidence to be the person who appeared before me.)</p> <p>Signature _____</p>
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OPTIONAL

Though this section is optional, completing this information can deter alteration of the document or fraudulent reattachment of this form to an unintended document.

Description of Attached Document

Title or Type of Document _____
Document Date _____ Number of Pages _____
Signers Other than Named Above: _____

Contractor Description Form

PRIME CONTRACTOR

Contract #: _____ Award Date: _____ Contract Term: _____
Contract Title: _____
Business Name: _____ Award Total: \$ _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email Address: _____

SUBCONTRACTOR

Business Name: _____ Award Total: \$ _____
Services to be provided: _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email Address: _____

SUBCONTRACTOR

Business Name: _____ Award Total: \$ _____
Services to be provided: _____
Owner's Ethnicity: _____ Gender _____ Group: SBE VSBE MBE WBE DVBE OBE
(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
Primary NAICS Code: _____ Average Three Year Gross Revenue: \$ _____
Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
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(Circle all that apply)
Local Business Enterprise: YES _____ No _____ (Check only one)
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Address: _____
City/State/Zip: _____
Telephone: () _____ FAX: () _____
Contact Person/Title: _____
Email address: _____

EXHIBIT H

Sec. 10.8.2.1. Equal Benefits Ordinance.

Discrimination in the provision of employee benefits between employees with domestic partners and employees with spouses results in unequal pay for equal work. Los Angeles law prohibits entities doing business with the City from discriminating in employment practices based on marital status and/or sexual orientation. The City's departments and contracting agents are required to place in all City contracts a provision that the company choosing to do business with the City agrees to comply with the City's nondiscrimination laws.

It is the City's intent, through the contracting practices outlined in this Ordinance, to assure that those companies wanting to do business with the City will equalize the total compensation between similarly situated employees with spouses and with domestic partners. The provisions of this Ordinance are designed to ensure that the City's contractors will maintain a competitive advantage in recruiting and retaining capable employees, thereby improving the quality of the goods and services the City and its people receive, and ensuring protection of the City's property.

(c) Equal Benefits Requirements.

(1) No Awarding Authority of the City shall execute or amend any Contract with any Contractor that discriminates in the provision of Benefits between employees with spouses and employees with Domestic Partners, between spouses of employees and Domestic Partners of employees, and between dependents and family members of spouses and dependents and family members of Domestic Partners.

(2) A Contractor must permit access to; and upon request, must provide certified copies of all of its records pertaining to its Benefits policies and its employment policies and practices to the DAA, for the purpose of investigation or to ascertain compliance with the Equal Benefits Ordinance.

(3) A Contractor must post a copy of the following statement in conspicuous places at its place of business available to employees and applicants for employment: "During the performance of a Contract with the City of Los Angeles, the Contractor will provide equal benefits to its employees with spouses and its employees with domestic partners." The posted statement must also include a City contact telephone number which will be provided each Contractor when the Contract is executed.

(4) A Contractor must not set up or use its contracting entity for the purpose of evading the requirements imposed by the Equal Benefits Ordinance.

(d) Other Options for Compliance. Provided that the Contractor does not discriminate in the provision of Benefits, a Contractor may also comply with the Equal Benefits Ordinance in the following ways:

(1) A Contractor may provide an employee with the Cash Equivalent only if the DAA determines that either:

a. The Contractor has made a reasonable, yet unsuccessful effort to provide Equal Benefits; or

b. Under the circumstances, it would be unreasonable to require the Contractor to provide Benefits to the Domestic Partner (or spouse, if applicable).

(2) Allow each employee to designate a legally domiciled member of the employee's household as being eligible for spousal equivalent Benefits.

(3) Provide Benefits neither to employees' spouses nor to employees' Domestic Partners.

(e) Applicability.

(1) Unless otherwise exempt, a Contractor is subject to and shall comply with all applicable provisions of the Equal Benefits Ordinance.

(2) The requirements of the Equal Benefits Ordinance shall apply to a Contractor's operations as follows:

a. A Contractor's operations located within the City limits, regardless of whether there are employees at those locations performing work on the Contract.

b. A Contractor's operations on real property located outside of the City limits if the property is owned by the City or the City has a right to occupy the property, and if the Contractor's presence at or on that property is connected to a Contract with the City.

c. The Contractor's employees located elsewhere in the United States but outside of the City limits if those employees are performing work on the City Contract.

(3) The requirements of the Equal Benefits Ordinance do not apply to collective bargaining agreements ("CBA") in effect prior to January 1, 2000. The Contractor must agree to propose to its union that the requirements of the Equal Benefits Ordinance be incorporated into its CBA upon amendment, extension, or other modification of a CBA occurring after January 1, 2000.

(f) Mandatory Contract Provisions Pertaining to Equal Benefits. Unless otherwise exempted, every Contract shall contain language that obligates the Contractor to comply with the applicable provisions of the Equal Benefits Ordinance. The language shall include provisions for the following:

(1) During the performance of the Contract, the Contractor certifies and represents that the Contractor will comply with the Equal Benefits Ordinance.

(2) The failure of the Contractor to comply with the Equal Benefits Ordinance will be deemed to be a material breach of the Contract by the Awarding Authority.

(3) If the Contractor fails to comply with the Equal Benefits Ordinance the Awarding Authority may cancel, terminate or suspend the Contract, in whole or in part, and all monies due or to become due under the Contract may be retained by the City. The City may also pursue any and all other remedies at law or in equity for any breach.

(4) Failure to comply with the Equal Benefits Ordinance may be used as evidence against the Contractor in actions taken pursuant to the provisions of Los Angeles Administrative Code Section 10.40, et seq., Contractor Responsibility Ordinance.

(5) If the DAA determines that a Contractor has set up or used its Contracting entity for the purpose of evading the intent of the Equal Benefits Ordinance, the Awarding Authority may terminate the Contract on behalf of the City. Violation of this provision may be used as evidence against the Contractor in actions taken pursuant to the provisions of Los Angeles Administrative Code Section 10.40, et seq., Contractor Responsibility Ordinance.