

INVITATION FOR BIDS

LAVTA TRANSIT SIGNAL PRIORITY UPGRADE AND EXPANSION PROJECT #2019-04

Livermore Amador Valley Transit Authority
1362 Rutan Court, Suite 100
Livermore, CA 94551

Date of Issuance:	October 24, 2019
Pre-Bid Meeting:	November 7, 2019 at 10:00 a.m.
Written Questions Due:	November 14 2019 at 4:00 p.m.
Answers to Questions Provided:	November 19, 2019
Bids Due:	December 6, 2019, at 2:00 p.m.
Contract Award (estimated):	January 6, 2020
Notice to Proceed (estimated):	Upon completion of all agreement requirements
Project Completion:	Within 120 Calendar Days of Notice to Proceed

Contact Info: Jennifer Yeaman
LAVTA Project Manager
(925) 455-7555
procurements@lavta.org

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NOTICE IS HEREBY GIVEN THAT sealed Bids will be received by the Administrative Services Department, of the Livermore Amador Valley Transit Authority (LAVTA) at its Administrative Offices, 1362 Rutan Court, Suite 100, Livermore, CA 94551, until **2:00 p.m. on December 6, 2019**, to provide for the Transit Signal Priority upgrade and expansion project, in accordance with requirements of the Solicitation Documents, at which time they will be read.

A non-mandatory Pre-Bid Conference will be held at **10:00 a.m on November 7, 2019**, at the **LAVTA Administrative Offices, located at 1362 Rutan Court in Livermore, CA**. At this Conference, members of the LAVTA staff will be available to answer questions pertaining to the Contract Documents and Specifications. The Conference should take no longer than an hour.

All questions during the solicitation phase of this project shall be directed to Jennifer Yeaman, Authority's Project Manager, at the address above. You may also fax your written requests to 925-443-1375 or email procurements@lavta.org. All questions concerning this project, and all requests for Approved Equals, **must be received in writing no later than 4:00 p.m. on November 14, 2019**. The LAVTA written Response to Questions shall be posted on the LAVTA website (www.wheelsbus.com) **on November 14, 2019**.

Only signed Addenda issued by LAVTA are binding. Bidders are required to acknowledge receipt of all Addenda with their Bids.

Whether mailed or personally delivered, Bids must be addressed to Tamara Edwards, Authority's Procurement Officer at Livermore Amador Valley Transit Authority, 1362 Rutan Court, Suite 100, Livermore, CA 94551, by the date and time set forth in the Solicitation Documents. **No late Bids will be accepted.**

Bids must be accompanied by a Bid Guaranty/Security in the form of a Certified or Cashier's Check, Bidder's Bond, or Irrevocable Standby Letter of Credit in the amount of at least ten percent of the total amount of the bid, as further defined in the Special Provisions. The Bid Guaranty/Security shall be retained by LAVTA and applied to any damages sustained by LAVTA in the event that the successful Bidder fails or refuses to enter into the Contract awarded to it.

Bidders bidding as the prime Contractor shall possess a valid California State Class C-10 Contractor's License at the time of Contract award and throughout the Contract term. The Invitation to Bid is available at www.wheelsbus.com or may be requested in hard copy format at the Authority's offices.

This is a Public Works Contract. In accordance with section 1720 et seq. of the Labor Code, the general prevailing wage rates as established by the Director of the California Department of Industrial Relations will apply. The prevailing wage rates established by the State Director of Industrial Relations can be viewed at LAVTA's offices, are available on the State of California's website at <http://www.dir.ca.gov/> or can be obtained by mail addressed to: Prevailing Wage Unit, Division of Labor Statistics and Research, Department of Industrial Relations, P.O. Box 603, San Francisco, CA 94101.

No Contractor or subcontractor may be listed on a bid proposal or awarded a contract for a public works project unless registered with Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5 at the time of bid. For federally funded projects, the Contractor and subcontractors must be registered at the time of contract award. (See Labor Code section 1771.1(a).)

Pursuant to California Civil Code Section 3247, the successful bidder shall furnish a payment bond if civil work exceeds twenty-five thousand dollars (\$25,000).

Bids will be examined and reported to the Board of Directors of LAVTA within 120 calendar days of the Bid opening. LAVTA reserves the right to reject any Bids or to waive any irregularity or informalities in any Bid or in the bidding procedure. No Bidder may withdraw its Bid for a period of 120 calendar days after the date of opening of the Bids. Each Bidder will be notified in writing of LAVTA's intent to award a Contract.

LAVTA hereby notifies all Bidders that it is the policy of LAVTA to ensure nondiscrimination on the basis of race, color, sex, national origin, religion, age, disability, ancestry, medical condition, sexual orientation, or

marital status in the award and administration of contracts that it awards. It is the intention of LAVTA to create a level playing field on which DBEs can compete fairly for contracts and subcontracts relating to LAVTA's construction, procurement, and professional service activities in accordance with LAVTA's DBE goals.

In connection with the performance of this Contract, full compliance with all applicable Safety and Health Standards and with all applicable laws and regulations concerning Equal Employment Opportunity will be required. The major provisions of LAVTA's policy are outlined in these Contract Specifications.

/s/ Tamara Edwards

Tamara Edwards
Procurement Officer

October 24, 2019

Date

The General Conditions and Instructions for Bidders (General Conditions) apply to all bidding except insofar as they may be modified by the Special Provisions, Federal Provisions, Davis-Bacon Act Wage Determinations, Technical Specifications, Bid Forms, or Addenda.

1. DEFINITION OF TERMS

Whenever in the bid or Solicitation Documents, the following terms or pronouns in place of them or abbreviations are used, the intent and meaning shall be interpreted as follows:

"Authority" or "LAVTA" means Livermore Amador Valley Transit Authority.

"Bid" means an offer submitted to the Authority in response to an Invitation for Bids (IFB) that is not subject to negotiation.

"Bid Documents" or "Solicitation Documents" or "Specifications" mean the Notice Inviting Bids, General Conditions and Instructions for Bidders, Special Provisions, Technical Specifications, Bid Forms, Bond Forms, Addenda, Exhibits, Drawings and Appendices, if any.

"Bid Form" means that part of the bid which contains the bid items, price, and other supporting information.

"Bidder" means the firm or individual submitting the bid.

"Board," "Directors," or "Board of Directors" means Livermore Amador Valley Transit Authority Board of Directors or members thereof.

"Contract" or "Agreement" is used interchangeably and means a binding understanding, enforceable by law, between two or more competent parties, obligating the seller to furnish the supplies or services and the buyer to pay for them.

"Contract Officer" means an employee or agent of the Authority responsible for the acquisition of supplies, materials, equipment, and services under the Contract.

"Contractor" means the successful Bidder to whom a Contract is awarded.

"Days" means calendar days unless otherwise indicated.

"Executive Director" means the Executive Director of the Livermore Amador Valley Transit Authority.

2. FORM OF BID AND SIGNATURE

The bid shall be made on the Bid Form(s) provided and shall be enclosed in a sealed envelope marked and addressed as required. If the Bidder is an individual, the bid shall be executed personally by the Bidder. If the Bidder is a co-partnership, it is desirable that the bid be executed by all of the partners, but it may be executed by one of them. If the Bidder is a corporation, it must be executed by two officers of the corporation consisting of (1) the chairman of the board, president or vice president; and (2) the secretary, assistant secretary, chief finance officer, assistant chief financial officer, treasurer, or assistant treasurer, or by a person authorized by the corporation to execute written bids on its behalf. If the Bid Form is executed by a person other than an officer, or by only one officer, there must be attached to the bid a certified copy of a resolution of the corporation authorizing such officer or person to execute written bids for and on behalf of the corporation. If the Bidder is a joint venture, the bid must be executed on behalf of each participating firm by officers or other individuals who have the full and proper authorization to do so. Bids submitted in any other form will be considered non-responsive and may be rejected.
No faxed or electronically-submitted bids or modifications will be considered.

3. BID FORM

Blank spaces on the Bid Form shall be properly filled in. The format and language of the Bid Form must not be changed and no additions shall be made to any of the items. Alteration by erasures or interlineations must be explained or noted on the Bid Form over the signature of the Bidder. If the unit price and the total amount named by the Bidder for any item do not agree, the unit price alone will be considered as representing the Bidder's intention. Any mathematical errors that appear on the face of the bid will be corrected by the Authority and the Authority will use the mathematically correct Grand Total Bid Price in determining the lowest monetary Bidder.

Unless otherwise stated in the Solicitation Documents, the Bidder shall include freight or delivery charges in the total price in its bid.

Submission of an alternative bid(s) except as specifically called for in the Solicitation Documents may render both bids non-responsive and may cause their rejection.

4. OR APPROVED EQUAL CLAUSE

In order to establish a basis of quality, certain materials, processes, or types of machinery and equipment may be specified in the Solicitation Documents by describing the process, by designating a manufacturer by name, brand, or product number, or by specifying a kind of material. It is not the intent of these Solicitation Documents to exclude other processes, equipment, or materials of equal value, utility, or merit which are approved by the Authority. Requests for approved equals are further detailed in the Special Provisions.

5. TAXES

The supplies, materials, or equipment called for in the Solicitation Documents will be used by the Authority in the performance of a governmental function and are exempt from taxation by the United States Government. The Authority will, if requested, furnish a tax exemption certificate and any and all affidavits and documents that may be necessary to establish such exemption. Unless otherwise specified in the Special Provisions or Bid Forms, unit prices shall not include state sales and use taxes. Contractors registered with the California Board of Equalization are required to facilitate payment of all sales and use taxes under the Contract. If a Contractor is not registered with the California Board of Equalization, the Authority will either require the Contractor to provide a receipt for all payments from the Authority separately itemizing the applicable sales or use taxes paid and forward all appropriate state taxes to the Board of Equalization, or assume responsibility for the payment of state sales and use taxes.

6. CASH DISCOUNT

The Bidder must state cash discount offered on Bid Form. The cash discount will not be considered in determining the lowest responsible and responsive Bidder. The Authority will not accept a cash discount with a term of less than ten days.

7. UNAUTHORIZED CONDITIONS

Unauthorized conditions, limitations, or provisions attached to a bid will render the bid non-responsive and may cause its rejection.

8. BIDDER'S SECURITY

Unless otherwise noted in the Special Provisions, each Bidder shall furnish and submit with its bid one of the following forms of Bidder's Security:

- a) Unconditional "certified check", "cashier's check", or "official check" drawn on a solvent bank payable to the order of Livermore Amador Valley Transit Authority;

- b) A Bidder's Bond using the form entitled "Bidder's Bond," provided with the Bid Forms, which is properly executed by the Bidder and an admitted surety insurer and is accompanied by the corporate surety's power of attorney. The surety's signature shall be notarized and the surety shall be acceptable to the Authority; or
- c) An Irrevocable Stand-by Letter of Credit, a sample of which is provided in the Bid Forms.

No personal or business checks will be accepted. The Bidder's Security shall be in the amount as specified in the Special Provisions.

Any condition or limitation placed upon the check or any alteration of the form of bond or Irrevocable Stand-by Letter of Credit, or imperfection in its execution will render it informal and may, at the option of the Authority, result in a rejection of the bid under which such check, bond, or Irrevocable Stand-by Letter of Credit is submitted. The Bidder's Security shall be a guarantee that the Bidder, if awarded the Contract, will execute the required Contract and bonds within 10 days after such Contract has been awarded to it or such additional time as may be allowed by the Authority. If the Bidder fails or refuses to execute the required Contract and bonds within that time, the money and proceeds from the Bidder's Security shall be applied towards payment of the resulting damage to the Authority of the delay and the necessity of accepting a higher or less desirable bid. The amount of the Bidder's Security shall not constitute a limitation upon the right of the Authority to recover for the full amount of such damage. The Bidder's Security shall remain in full force and effect until a written Contract is executed and all the required bonds are furnished.

The Bidder's Security of the successful Bidder and the next two lowest Bidders will be returned after execution of the Contract with the successful Bidder and the approval and acceptance on behalf of the Authority of all other Contract bonds and insurance requirements. The Bidder's Security of the other Bidders not one of the three lowest, will be returned promptly after the bids have been opened and reviewed by the Authority.

9. SUBMISSION OF BID

Prior to the time and date specified in the Notice Inviting Sealed Bids (Notice), Bidders shall deliver two counterparts of the bid (one original and one duplicate) to the Procurement Officer, at the address shown in the Notice. All bids shall be in a sealed envelope and properly marked with the Solicitation number and title and the Bidder's name. **Bids received after said time or date or at any other location than the place stated in the Notice will not be considered.**

10. WITHDRAWAL OF BID

A Bidder may withdraw its bid before the expiration of the bid due date and time without prejudice to itself, by submitting a written request for bid withdrawal to the Executive Director.

11. BID OPENING

At the due date and time specified in the Notice, the Executive Director or designee, will open, examine, and publicly read all bids received. Bidders, their representatives, and others interested, are invited to be present at the opening of bids. All bids will then be examined and reported to the Board usually within 90 to 120 days from receipt of bids. The Authority reserves the right to postpone the bid opening for any reason.

12. SOLE BID EVALUATION

In the event a single bid is received, the Authority may conduct a price and/or cost analysis of the bid to verify that the bid price is fair and reasonable. It should be recognized that a price analysis involves a comparison with other similar procurements and must be based on an established or competitive price for the products subject to the comparison. The comparison must be made with a purchase of similar volume and involving similar specifications. Where a difference exists, a detailed analysis must be made of the price differential and costs or reasons associated therewith.

Where it is impossible to obtain a valid price analysis, it may be necessary for the Authority to conduct a cost analysis of the bid price, which process entails examination and evaluation of the separate cost/profit elements of the bid quotation. The Bidder will be expected to cooperate in this process and to furnish the Authority with any and all requested documentation necessary to undertake the required analyses.

13. BIDDER'S WAIVER

The Bidder shall represent and warrant that it has sufficiently informed itself in all matters affecting the performance of the work or the furnishing of the labor, supplies, material, or equipment called for in the Specifications. The Bidder shall warrant that it has checked its bid for errors and omissions; that the prices stated in its bid are correct, and as intended by it, and are a complete and correct statement of its prices for performing the work or furnishing the labor, supplies, materials, or equipment required by the Solicitation Documents. The Bidder waives any claim for the return of its Bidder's Security if, on account of errors or omissions claimed to have been made by it in its bid, or for any other reason, it should refuse or fail to execute the Contract.

14. STATEMENT OF EXPERIENCE AND QUALIFICATIONS

The Bidder may be required, upon request of the Executive Director, to prove to the Authority's satisfaction that it has the necessary skill, experience, facilities, and ample financial resources to perform the Contract in a satisfactory manner and within the required time.

15. PENALTY FOR COLLUSION

If at any time it shall be found that the person, firm, or corporation to whom a Contract has been awarded has in presenting any bid or bids, colluded with any other party or parties, then the Contract so awarded shall be null and void and the Contractor and its sureties shall be liable to the Authority for all loss or damage which the Authority may suffer thereby; and the Board of Directors may re-award the Contract pursuant to appropriate procedures.

16. INTEREST OF AUTHORITY PERSONNEL

By submitting a bid, the Bidder represents and warrants that to the best of its knowledge, no director, officer or employee of the Bidder or Authority is in any manner interested directly or indirectly in the bid or in the Contract which may be made under it, or in any expected profits to arise therefrom, as set forth in Title 1, Division 4, Chapter 1, Article 4 (commencing with Section 1090) or Title 9 (commencing with Section 81000) of the Government Code of the State of California.

17. PROHIBITED INTEREST

No member, officer, or employee of the Authority, during his or her tenure or for one year after that tenure, shall have any interest, direct or indirect, in this Contract or the proceeds under this Contract, nor shall any such person act as an agent or attorney for, or otherwise represent, a Bidder or Contractor by making a formal or informal appearance, or any oral or written communication, before the Authority or any officer or employee of the Authority for a period of one year after leaving office or employment with the Authority if the appearance or communication is made for the purpose of influencing any action involving the issuance, amendment, award, or revocation of a Contract.

18. AWARD OR REJECTION OF BIDS

Award will be made or bids will be rejected by the Authority within the time specified in the Special Provisions or Bid Forms, or if not specified, within a reasonable time after bids have been opened. The Authority may reject any and all bids, and may reject a bid of any party who has been delinquent or unfaithful in any former Contract with the Authority. Also, the Authority reserves the

right to waive any irregularities or informalities in any bid or in the bidding procedure. If an award is made, it shall be made to the lowest responsive and responsible Bidder. All Bidders shall be notified of the award.

19. BID PROTEST PROCEDURES

The Authority maintains written procedures that must be followed for all bid protests. Copies of the complete bid protest procedures are available at the office of the Executive Director. **Failure to comply with any of the requirements set forth in the Authority's written bid protest procedures may result in rejection of the protest.**

Protests based upon restrictive specifications or alleged improprieties in the bidding procedure which are apparent or reasonably should have been discovered by the Bidder prior to the advertised bid due date, shall be filed in writing with the Executive Director, not later than five (5) calendar days prior to the bid due date. The protest must clearly specify in writing the grounds and evidence on which the protest is based. Staff shall respond to the protest with a written determination prior to the bid due date.

Protests based upon alleged improprieties that are not apparent or which could not have reasonably been discovered prior to the advertised bid due date or disputes over the staff recommendation for Contract award, shall be submitted in writing to the Executive Director, within five (5) days of postmark, faxed date, or other form of notification of the Authority's notice of Contract award recommendation. The protest must clearly specify in writing the grounds and evidence on which the protest is based. The Executive Director will respond to the protest, in writing, at least three (3) days prior to the meeting at which staff's recommendation to the Authority's Board of Directors will be considered.

Should the Bidder decide to appeal the response of the Executive Director and pursue its protest at the Board meeting, it will notify the Executive Director of its intention at least two (2) days prior to the scheduled meeting.

20. TIME FOR EXECUTION OF CONTRACT AND FILING BOND

The Bidder to whom award is made shall execute a written Contract with the Authority on the Authority's form of Contract and furnish the other bond(s) as required within 10 days of receiving the form of Contract and bond(s) for execution from the Authority.

If the Bidder to whom award is made fails to enter into the Contract as provided and furnish the required bond(s), the award may be annulled. An award may, at the discretion of the Board, be made to the Bidder whose bid is next most acceptable in the opinion of the Board and such Bidder shall fulfill every condition in the Solicitation Documents and form of Contract as if it were the party to whom the first award was made.

21. DOCUMENTS DEEMED PART OF CONTRACT

The Notice Inviting Sealed Bids, General Conditions and Instructions for Bidders, Special Provisions, Bid Forms, Technical Specifications, Appendices, Exhibits, Drawings and Addenda, if any, will be deemed parts of the Contract.

22. MANNER OF EXECUTION OF CONTRACT

If the Contractor is an individual, the Contract shall be executed personally by the Contractor. If the Contractor is a co-partnership, it is desirable that the Contract be executed by all of the partners, but it may be executed by one of them. If the Contractor is a corporation, it must be executed by two officers of the corporation consisting of (1) the chairman of the board, president, or vice president; and (2) the secretary, assistant secretary, chief finance officer, treasurer, or assistant treasurer, or by a person authorized by the corporation to execute written contracts on

its behalf. If the Contract is executed by a person other than an officer or by only one officer, there must be attached to the Contract a certified copy of a resolution of the corporation authorizing such officer or person to execute written contracts for and on behalf of the corporation. If the Contractor is a joint venture, the Contract must be executed on behalf of each participating firm by officers or other individuals who have the full and proper authorization to do so.

23. EFFECT OF EXTENSIONS OF TIME

Granting or acceptance of extensions of time to complete the work or furnish the labor, supplies, materials, or equipment required under the Contract will not release Contractor or the surety from Contractor's Performance Security.

24. LIQUIDATED DAMAGES

It is agreed by the parties to the Contract that TIME IS OF THE ESSENCE, and in the event of a delay in completion of the work or the delivery of the supplies, materials, or equipment beyond the date set forth in the Contract Documents, or authorized extensions, damage will be sustained by the Authority, and that it is or will be impracticable to determine the actual amount of the damage by reason of such delay. It is, therefore, agreed that the Authority shall be paid an amount as set forth in the Special Provisions as liquidated damages. If no amount is set forth, Contractor shall be liable for actual damages for each and every calendar day that performance of this Contract extends beyond the time herein specified, which sum or sums will be considered as liquidated damages in that the Authority will suffer by reason of delay or default.

25. DELIVERY

The Contractor shall prepare all equipment and materials for shipment in such a manner as to protect them from damage in transit, and shall be responsible for and repair all damaged parts or replace all losses incurred in the course of delivery of the equipment and materials to the Authority's facilities. When necessary, heavy parts shall be mounted on skids or crated, and all parts or materials that might otherwise be lost shall be boxed or wired in bundles. All parts shall be plainly marked for identification and destination.

26. MATERIAL AND WORKMANSHIP

All materials, parts, and equipment furnished by the Contractor shall be new, high grade and free from defects. Workmanship shall be in accordance with generally accepted industry standards. The Contractor shall establish and maintain quality assurance policies and procedures to insure compliance with these specifications. The Contractor shall extend full access to the Authority to its manufacturing facilities during normal working hours so that the Authority can inspect and monitor the Contractor's compliance with its established quality assurance procedures and the Authority's Specifications.

Any material or equipment not conforming to the requirement of these Solicitation Documents or found to be damaged or defective at the time of delivery shall be replaced by the Contractor without additional cost to the Authority.

If the Contractor shall fail to comply promptly with any order of the Executive Director to replace or repair damaged or defective material, equipment or work, the Executive Director, upon written notice to the Contractor, have the authority to deduct the cost of such replacement or repair from any compensation due or to become due to the Contractor.

Nothing in this section shall limit or restrict the provisions of the warranty of fitness as set forth in these General Conditions and Instructions for Bidders.

27. INSPECTION / ACCEPTANCE

Within 5 working days of delivery or work completion, the Authority shall inspect and test, to its own satisfaction, the material delivered or work completed to ensure Contract compliance. In the event that the material or work is in compliance with the Contract, the Authority shall accept the Services by processing the Contractor's invoice for payment in accordance with the procedures delineated in the Special Provisions.

If the Authority determines that there are any defects or deficiencies in the material or work, the Authority will send a rejection letter outlining any defects or deficiencies. The Contractor shall rectify these defects or deficiencies within five days of postmark, faxed date, or other form of notification, unless the Authority approves otherwise in writing. If the Contractor fails or refuses to rectify these defects or deficiencies to the Authority's satisfaction, the Authority may arrange to procure new material or correct the defective work at the Contractor's expense. The Authority may opt to deduct the amount for the new material or corrective work from any amounts due to the Contractor under this Contract.

28. WARRANTY OF TITLE

The Contractor shall warrant to the Authority, its successors and assigns, that the title to the material, supplies or equipment covered by the Contract, when delivered to the Authority or to its successor or assigns, is free from all liens and encumbrances.

29. WARRANTY

The Contractor guarantees and warrants that all work performed and items supplied under this Contract shall (1) conform to the Technical Specifications and all other requirements of this Contract; (2) fulfill its design functions and be fit for both its ordinary and intended purposes; (3) be free of all patent and latent defects in design, materials and workmanship; and (4) perform satisfactorily **for a minimum of one year following final acceptance.**

It is understood and agreed that by acceptance of this warranty and the acceptance of materials or supplies to be manufactured or assembled pursuant to these Specifications, the Authority does not waive any warranty, either expressed or implied in Sections 2312 to 2317, inclusive, of the Business and Professions Code of the State of California, or any products liability of the Contractor as determined by any applicable decisions of a court of the State of California or of the United States.

30. APPROVAL BY THE EXECUTIVE DIRECTOR

The Authority reserves the right to direct and supervise the work under this Contract through its Executive Director and his/her properly authorized agents on whose inspection all work shall be accepted or condemned. The Executive Director shall have full power to reasonably reject or condemn any materials furnished or work performed under the Contract which does not conform to the terms and conditions set forth in the Contract.

31. CONTRACTOR'S LIABILITY

The Contractor shall indemnify, keep and save harmless the Authority and its directors, officers, employees, and agents against all suits or claims that may be based on any injury to, or death of, any person or any damage to property that may occur, or that may be alleged to have occurred, arising from the performance of this Contract by the Contractor, whether or not it shall be claimed that the injury was caused through a negligent act or omission of the Contractor or its employees. The Contractor shall, at its own expense, pay all charges of attorneys and all costs and other expenses arising therefrom. If any judgment shall be rendered against the Authority in any such action, or if the Authority enters into a settlement to resolve the whole or a portion of such action, the Contractor shall at its own expense satisfy and discharge the same. Termination or expiration

of the Contract shall not affect the Contractor's duty to indemnify, keep and save harmless for suits or claims accruing during the Contract period.

32. CONTRACTOR'S INTELLECTUAL PROPERTY LIABILITY

The Contractor represents and warrants that its performance under this Contract, and all work, materials and equipment used in its performance of this Contract, will not infringe or misappropriate any intellectual property rights, such as patent, copyright, trademark or trade secret. In addition to the warranties and indemnities provided elsewhere in this Contract, the Contractor agrees that it will, at its own expense, indemnify, defend, and hold harmless the Authority and its directors, officers, employees, and agents against all demands, liabilities, damages, expenses, suits and proceedings that are based on any claim that the services, software, materials or equipment, or any part thereof, or any tool, article or process used in the manufacture thereof, or used in connection with the Contractor's work under this Contract, constitutes a violation, infringement, unauthorized use or misappropriation of any intellectual property of any third parties (including, without limitation, any trade secret, trademark, service mark, copyright, patent, process, method or device). If the institution or resolution of such a suit or proceeding requires the Authority to procure new non-infringing material or equipment, it may do so at the Contractor's expense.

The Authority will give the Contractor prompt notice in writing of the institution of the suit or proceeding. At no cost to the Authority and without diminishing the Contractor's duty to defend, the Authority shall have the right to control, monitor through counsel of its choosing, and participate in the defense (including, without limitation, selection of counsel) of any such demand, suit, or proceeding concerning matters relating to the Authority, none of which may be settled without the Authority's consent, which shall not be unreasonably withheld. The Authority, in its sole discretion, may permit the Contractor, through Contractor's counsel, to defend the same, and will give the Contractor all needed information, assistance, and authority to enable the Contractor to do so. If any third party files a claim or lawsuit against the Authority that impacts the Authority's ownership or use of work performed or materials or equipment supplied under this Contract, or any material components of this Contract, the Authority in its sole discretion may terminate this Contract for Contractor default. This indemnification shall survive the termination or expiration of this Contract.

33. CHANGES IN CONTRACT WORK REQUESTED BY THE AUTHORITY

If the Contractor, on account of conditions developing during performance of the Contract, finds it impracticable to comply with the Contract Specifications and applies in writing for a modification of requirements, such change may only be authorized by the Authority in writing.

The Authority may make additions or deletions at any time, by written supplement to the Agreement, within the Scope of Work and Services described in these Solicitation Documents. It is understood, however, that the amount of work, materials, or equipment required by the Contract may not be so increased or diminished as to substantially alter the general character or extent of the Contract.

The Executive Director, or his/her designee, will further authorize the Contractor to perform such additional work and furnish such additional materials or equipment at the Contractor's catalog prices, less discounts ordinarily allowed to users of such materials or equipment or at regular labor charges, less customary discount, or both. In the event that there are no such catalog prices or regular labor charges applicable to the change in the Contract work, the prices or charges shall be established by mutual agreement between the Authority and the Contractor.

If additional work, materials or equipment not mentioned, specified, indicated or otherwise provided for in the Solicitation Documents are requested by the Authority, the Contractor shall, if ordered by the Executive Director, or designee, undertake the performance of such additional work or the furnishing of such additional materials or equipment. The amount to be paid to the

Contractor shall be increased in an amount which the Executive Director, or designee, and the Contractor shall determine and mutually agree to be the reasonable value of such additional work, materials or equipment, and such determination and agreement shall be final and conclusive upon the Contractor.

In case any work, materials or equipment which are mentioned, specified, indicated or otherwise provided for in the Contract, or in the Specifications forming a part of the Contract, shall be required to be omitted from, in or about the work, the Contractor shall, if ordered by the Executive Director, or his/her designee, omit the performance of such work and the furnishing of such materials or equipment. There shall be deducted from the amount to be paid to the Contractor the amount which the Executive Director, and his/her designee, and the Contractor shall determine and mutually agree to be the reasonable value of such work, materials or equipment and such determination and agreement shall be final and conclusive upon the Contractor.

34. CHANGES TO CONTRACT WORK REQUESTED BY THE CONTRACTOR

If the Contractor encounters any unanticipated conditions or contingencies that may affect the Scope of Work or Services, or identifies any Authority conduct (including actions, inaction, and written or oral communications other than a formal Contract modification) that the Contractor regards as a change to the contract terms and conditions that may result in an adjustment in the amount of compensation specified herein, the Contractor shall so advise the Authority immediately upon notice of such condition, contingency or Authority conduct. The written notice shall explain the circumstances giving rise to the unforeseen condition or contingency and shall set forth the proposed adjustment in compensation.

In any event, such notification shall be made to the Executive Director, or designee, in writing and within not more than 10 calendar days from the date the Contractor encounters the unanticipated condition or contingencies, or identifies Authority conduct that would warrant a change to the Contract. This notice shall be given to the Authority prior to the time that Contractor performs any work or services or provides any item(s) related to the proposed adjustment in compensation. Failure to provide written notice and receive Authority approval for extra work, services, or item(s), prior to performing extra work, services or furnishing an item or items may, at the Authority's sole discretion, result in nonpayment of the invoices for the extra work, services, or item(s). The changes and negotiated equitable adjustment shall be expressed in a written modification to the Agreement, prior to implementation of such changes.

35. CLAIMS AND DISPUTES

The Contractor shall be solely responsible for providing timely written notice to the Authority of any claims for additional compensation and/or time in accordance with the provisions of the Contract. It is the Authority's intent to investigate and attempt to resolve any Contractor claims before the Contractor has performed any disputed work. In addition, the Authority desires to mitigate its responsibility (if any) for any Contractor claims before the disputed work is performed. Therefore, Contractor's failure to provide timely notice, as provided for in the Contract, shall constitute a waiver of Contractor's claims for additional compensation and/or time.

The Contractor shall not be entitled to the payment of any additional compensation for any cause, including any act, or failure to act, by the Authority, including the failure or refusal to issue a modification, or the happening of any event or occurrence, unless it has given the Authority due written notice of a potential claim. The potential claim shall set forth the reasons for which the Contractor believes additional compensation may be due, the nature of the costs involved, and the amount of the potential claim.

If based on an act or failure to act by the Authority, such notice shall be given to the Authority prior to the time that the Contractor has started performance of the work giving rise to the potential claim for additional compensation. In all other cases, notice shall be given within 10 days after the happening of the event or occurrence giving rise to the potential claim.

If there is a dispute over any potential claim, the Contractor shall continue to work during the dispute resolution process in a diligent and timely manner as directed by the Authority, and shall be governed by all applicable provisions of the Contract. The Contractor shall maintain cost records of all work which is the basis of any dispute.

If an agreement can be reached which resolves the Contractor's potential claim, the parties will execute a Contract modification to document the resolution of the potential claim. If the parties cannot reach an agreement with respect to the Contractor's potential claim, Contractor may file a claim pursuant to Special Provision 27 no later than 30 days after the Authority notifies the Contractor that an agreement cannot be reached regarding the potential claim.

36. EFFECT OF FAILURE TO COMPLETE CONTRACT

In case of failure on the part of the Contractor to complete this Contract within the specified time or within authorized extensions, the Authority may terminate the Contract and refuse to pay the Contractor or allow any further compensation for any labor, supplies, or materials furnished by it under the Contract. The Authority may proceed to complete such Contract either by reletting or otherwise, and the Contractor and its surety, when applicable, shall be liable to the Authority for any and all losses or damages which the Authority may suffer on account of the Contractor's failure to complete the Contract within such time.

37. ASSIGNMENT AND DELEGATION

The Contractor shall neither delegate any duties or obligations under this Contract nor assign, transfer, convey, sublet or otherwise dispose of the Contract or its right, title or interest in or to the same, or any part thereof, without previous consent in writing from the Executive Director.

38. SUBCONTRACTING

The Authority reserves the right to approve any subcontractor that is used under this Contract. The Contractor shall give its attention to, and be responsible for, the fulfillment of all terms of the Contract, and shall keep all Contract work under its control. Nothing in the Contract shall create any contractual relationship between the Authority and any subcontractor. The Contractor is fully responsible to the Authority for the acts and omissions of its subcontractors and persons either directly or indirectly employed by its subcontractors, just as it is for the acts and omissions of persons directly employed by the Contractor.

The Contractor shall not, without the prior written consent of the Executive Director, substitute any subcontractor in place of any previously-approved subcontractor. When a portion of the work which has been subcontracted by the Contractor is not being performed in a manner satisfactory to the Authority, the subcontractor shall be removed immediately upon the request of the Authority, and shall not be employed for any future work under the Contract.

39. TERMINATION OF CONTRACT

The Authority may terminate this Contract at any time by giving the Contractor 30 calendar days' written notice thereof. Notice of termination shall be sent by certified mail. Upon termination, the Authority shall pay the Contractor its allowable costs incurred to the date of termination and those costs deemed necessary by the Authority to effect termination.

In the event that the Contractor at any time during the entire term of this Contract breaches the requirements or conditions of the Contract, and does not within 10 calendar days of receipt of notice thereof from the Authority cure such breach or violation, the Authority may immediately terminate this Contract and shall pay the Contractor only its allowable costs to the date of termination. If the Contractor does cure the breach or violation, any subsequent breach or violation of any kind may be cause for immediate termination without notice.

40. NON-EMPLOYEE PICKETING

If an employee of the Contractor pickets the facilities of the Authority in connection with a labor dispute, the Authority may terminate or suspend the Contract immediately. In addition, the Contractor shall reimburse the Authority for expenses incurred by the Authority resulting from the picketing or Contract suspension or termination.

41. ENVIRONMENTAL, SAFETY AND HEALTH STANDARDS COMPLIANCE

The Contractor shall comply with applicable environmental statutes, regulations, and guidelines in performing the work under this Contract. The Contractor shall also comply with applicable Occupational Safety and Health Administration (OSHA) standards, regulations, and guidelines in performing the work under this Contract.

42. HAZARDOUS CHEMICALS AND WASTES

The Contractor shall bear full and exclusive responsibility for any release of hazardous or non-hazardous chemicals or substances during the course of its performance of this Contract. The Contractor shall immediately report any such release to the Authority's Project Manager, and Contractor shall be solely responsible for compliance with all applicable federal, State, and local laws and regulations regarding reporting of releases of hazardous chemical or substances to appropriate government agencies. The Contractor shall be solely responsible for all claims and expenses associated with the response to, removal and remediation of the release, including without limit, payment of any fines or penalties levied against the Authority by any agency as a result of such release and shall hold harmless, indemnify, and defend the Authority from any claims arising from such release. For purposes of this section only, the term "claims" shall include (1) all notices, orders, directives, administrative, or judicial proceedings, fines, penalties, fees, or charges imposed by any governmental agency with jurisdiction; and (2) any claim, cause of action, or administrative or judicial proceeding brought against the Authority, its directors, officers, employees or agents, or for any loss, cost (including reasonable attorneys' fees), damage or liability, sustained or suffered by any person or entity, including the Authority.

If in the performance of the work outlined in these Solicitation Documents the Contractor uses hazardous chemicals or substances or creates any hazardous wastes, as defined in federal and State law, all such resulting hazardous wastes shall be properly handled, stored and disposed of according to federal, State, and local laws, at the expense of the Contractor. The Contractor shall dispose of any and all such hazardous wastes under its own EPA Identification Number via a licensed hazardous waste transporter, at an appropriately permitted disposal facility selected by Contractor. In no event shall the Authority be identified as the generator of any such wastes. The Contractor shall determine whether any wastes generated during the performance of the work is hazardous waste, and shall notify the Project Manager if Contractor generates any hazardous wastes, and the Authority reserves the right to a copy of the results of any tests conducted on the wastes and, at Authority's cost, to perform additional tests or examine those wastes prior to disposition. The Contractor shall hold harmless, indemnify, and defend the Authority from any claims arising from the disposal of such hazardous wastes regardless of the absence of negligence or other malfeasance by Contractor.

43. ANTITRUST CLAIMS

The Contractor's attention is directed to California Government Code Section 4552, which shall be applicable to the Contractor and its subcontractors:

"In submitting a bid to a public purchasing body, the Bidder offers and agrees that if the bid is accepted, it will assign to the purchasing body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 12) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the

Bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the Bidder."

44. TITLE VI COMPLIANCE

During the performance of any Contract entered into pursuant to these Contract Documents, the Contractor, for itself, its assignees and successor in interest, agrees that it shall comply with Title VI of the Civil Rights Act of 1964 (42 U.S.C. Section 2000d) and the Regulations relative to nondiscrimination in federally assisted programs of the Department of Transportation, Title 49 CFR Part 21, as they may be amended from time to time, which are incorporated by reference and made a part of this Contract.

45. EQUAL EMPLOYMENT OPPORTUNITY

In connection with the performance of this Contract, the Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, citizenship, political activity or affiliation, national origin, ancestry, physical or mental disability, marital status, age, medical condition (as defined under California law), veteran status, sexual orientation, gender identity, gender expression, sex or gender (which includes pregnancy, childbirth, breastfeeding, or related medical conditions), taking or requesting statutorily protected leave, or any other characteristics protected under federal, state, or local laws. The Contractor shall take affirmative actions to ensure that applicants are employed, and that employees are treated during their employment, without regard to their race, religion, color, sex, disability, national origin, or any other characteristic protected under state, federal, or local laws. Such actions shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor further agrees to insert a similar provision in all subcontracts, except subcontracts for standard commercial supplies or raw materials.

46. ACCESS REQUIREMENTS FOR INDIVIDUALS WITH DISABILITIES

The Contractor agrees to comply with all applicable requirements of the Americans with Disabilities Act of 1990 (ADA), commencing at 42 U.S.C. Section 12101; Section 504 of the Rehabilitation Act of 1973, as amended, 29 U.S.C. Section 794; Section 16 of the Federal Transit Act, as amended; 49 U.S.C. Sections 5312 and 5332; and implementing regulations, as may be amended.

47. AUTHORITY'S WAIVER OF CONDITIONS

The waiver of any provision, term, or condition in these Solicitation Documents by the Authority on any particular occasion shall not constitute a general waiver of any other provision, term, or condition, nor a release from the Contractor's obligation to otherwise perform or observe any other provision, term, or condition of the Contract.

48. SEVERANCE

If any parts of the Solicitation Documents or Contract are declared invalid by a court of law, such decision will not affect the validity of any remaining portion, which shall remain in full force and effect.

49. ATTORNEYS' FEES

If any legal proceeding should be instituted by either of the parties to enforce the terms of this Contract or to determine the rights of the parties hereunder, the prevailing party in said proceeding shall recover, in addition to all court costs, reasonable attorneys' fees.

50. GOVERNING LAW

The Contract hereunder shall be governed by the laws of the State of California. The Contract must comply with all federal, State, and local laws, rules, and regulations applicable to the Contract and to the work to be done hereunder, including all rules and regulations of the Authority.

51. RIGHTS AND REMEDIES OF THE AUTHORITY

The rights and remedies of the Authority provided herein shall not be exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

52. PROHIBITION AGAINST CONTRACTING WITH DEBARRED SUBCONTRACTORS

Contractor is prohibited from performing work on a public works project with a subcontractor who is ineligible to perform work on the public works project pursuant to Section 1777.1 or 1777.7 of the Labor Code.

53. SECURITIES IN LIEU OF RETENTION

Pursuant to Public Contract Code Section 22300, the successful Bidder may submit Securities in lieu of retention payments by the Authority. Upon Contractor's request, the Authority will make payment of funds withheld from progress payments, pursuant to the requirements of California Public Contract Code Section 22300, if Contractor deposits in escrow with the Authority or with a bank acceptable to the Authority, securities eligible for investment under California Government Code Section 16430, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and the Authority, upon the following conditions:

(1) Contractor shall bear the expenses of the Authority and the escrow agent in connection with the escrow deposit made.

(2) Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amounts of retention to be paid to Contractor pursuant to this article.

(3) Contractor shall enter into an escrow agreement satisfactory to the Authority, which agreement shall be substantially similar to the form provided in California Public Contract Code Section 22300.

(4) Contractor shall obtain the written consent of the surety to such agreement.

54. EXAMINATION AND AUDIT OF RECORDS

Pursuant to Government Code Section 8546.7, Contractor must retain all project-related records for a period of 3 years after final payment on this Agreement, which will be subject to audit or inspection by the Authority or the State Auditor during this period.

Separate and apart from the obligations under Section 8546.7, the Authority will have the right to audit project records at Authority discretion under the following circumstances: (a) submission of a Public Records Act request regarding the project; (b) inability to resolve a disputed Agreement change order; or (c) submission of a construction claim.

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1. SCOPE OF CONTRACT

It is the intent of the Authority to award a Contract for the LAVTA Transit Signal Priority Upgrade and Expansion Project, in accordance with these specifications and as more particularly described in the Technical Specifications which are included herewith.

2. SCHEDULE OF ACTIVITIES

Listed below is the "Schedule of Activities" which outlines pertinent dates of which bidders should make themselves aware:

- A. Pre-Bid Conference -- **10:00 a.m. on November 7, 2019**. Please reference Special Provision 3.
- B. Requests for Clarification/Interpretation **must be in writing -- to be received by 4:00 p.m. on November 14, 2019**. Please reference Special Provision 6.
- C. Requests for Approved Equals -- **to be received by 4:00 p.m. on November 14, 2019**. Please reference Special Provisions 7 and 8.
- D. Authority's Response to Requests for Clarification/Interpretation and Requests for Approved Equals will be posted on the Authority's website at **www.wheelsbus.com on November 19, 2019**. Please reference Special Provision 6.
- E. Bid Opening – **2:00 p.m. on December 6, 2019**. Please reference Special Provision 13.

3. PRE-BID CONFERENCE

A Pre-Bid Conference will be held beginning at **10:00 a.m. on November 7, 2019**, at the LAVTA Administrative Offices, 1362 Rutan Court, Suite 100, Livermore, CA 94551. At this Conference, members of the Authority's staff will be available to answer questions pertaining to the Contract Documents and Specifications. The Conference should take approximately one-hour. Attendance is not mandatory, but encouraged to ensure Bidders are familiar with the Scope of Work, equipment, procedures, and to allow an opportunity to visit the job sites and take measurements.

4. QUALIFICATION OF BIDDERS

The Authority may reject the bid of any bidder deemed not to possess the minimum qualifications to perform the required work. In order to be deemed minimally qualified, a Bidder must, at the time of the bid opening:

- A. be a person or firm having the capabilities of performing the scope of work and securing specialty subcontractors who are properly licensed to perform the specialty work required for the types of services shown in the technical specifications; and
- B. have the equipment, materials, tools and labor force capable of performing the work within the required time frame; and
- C. be properly licensed in accordance with the laws of the State of California. **BIDDERS MUST POSSESS A VALID CLASS C-10 CONTRACTOR'S LICENSE** and shall maintain said license during the entire term of the Contract. Bidder must include on page B-3 of the bid its valid Class C-10 license number and

expiration dates. All subcontractors performing on the contract shall be properly licensed by the State of California to perform specialized trades.

Each bidder shall submit the form entitled "List of References," Pages B-8 through B-9, which is a list of five (5) firms for which it provides or has provided comparable services within the past two years.

No Contractor or subcontractor may be listed on a bid proposal or awarded a contract for a public works project unless registered with Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5 at the time of bid. For federally funded projects, the Contractor and subcontractors must be registered at the time of contract award. (See Labor Code section 1771.1(a).)

FAILURE TO PROVIDE INFORMATION REGARDING EXPERIENCE MAY RESULT IN REJECTION OF THE BID.

5. PERMITS AND INSPECTIONS

All Municipal, County, State and Federal laws, rules and regulations governing or related to any portion of this requirement are hereby incorporated into and made a part of these specifications. All permits, licenses and inspections required by Municipal, County and State authorities shall be obtained, maintained in force and paid for by the Contractor. Any tests required by such authorities shall be conducted in the presence of such authorities or their authorized representatives.

The Authority reserves the right to inspect the bidder's premises prior to Contract award or at any time during the Contract period. Requests by the Contractor for inspection of the Authority's facility will require a 24 hour advance notice to the Facility Contract Administrator.

6. QUESTIONS AND REQUESTS FOR CLARIFICATION

If any person contemplating submitting a bid for the proposed Contract is in doubt as to the true meaning of any provision of these Contract Documents, they shall submit a written request to the named Contract Officer at the address set forth in Special Provision 14, for an interpretation or clarification no later than **4:00 PM, November 14, 2019**. Prospective bidders may also submit written requests to the named Contract Officer by email to: jyeamans@lavta.org. The Authority will respond to such requests on **November 19, 2019**, by posting responses on the Authority's website at www.wheelsbus.com.

Any interpretation, change, or correction of these Contract Documents will be made by written Addendum that will be posted to the Authority's website. Upon such posting, such Addendum will become a part of the Contract Documents and binding on all bidders. The receipt of the Addendum by the bidder shall be acknowledged and so noted in the space provided for on the Bid Form. Oral explanations or instructions will not be binding on the Authority.

These Contract Specifications are intended to describe and provide for a completed work. In the event that there are inconsistencies or discrepancies between terms and conditions contained in the General Conditions, Special Provisions, and Technical Specifications, the terms and conditions contained in the Special Provisions and Technical Specifications shall govern over those included in the General Conditions.

7. APPROVED EQUAL REQUESTS

It is understood that specifying a brand name or specific types of components, equipment,

and/or processes in these specifications shall not relieve the Bidder from its responsibility to furnish the end product in accordance with the warranty and contractual requirements. The Bidder is responsible for notifying the Authority of any inappropriate brand names, or types of components, equipment, and/or process that may be called for in these specifications, and to propose a suitable substitute for consideration. Unless otherwise specifically provided in the specifications, reference to any equipment, material, article, or patented process by trade name, make or catalog number shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. A Bidder may, at its option, use any equipment, material, article, or process which, in the judgment of the Authority, is equal to that designated. To do so a Bidder shall furnish, at its own expense, all test results, technical data and background information required by the Authority in making the determination as to whether the proposed equipment, material or article or process, in the judgment of the Authority, is equal to that designated. This shall be submitted on Form B-13, Request for Approved Equals included in these Solicitation Documents.

The Authority shall be the sole judge as to the comparative quality and suitability of alternative equipment, articles, material, or process, and its decision shall be final.

8. APPROVED EQUAL PROCEDURES

- A. Prospective Bidders may discuss these specifications with the Authority's Contract Officer. This, however, will not relieve Bidders from the procedure of submitting written documented requests as required by Paragraph B below.
- B. Requests for Approved Equals must be received by the Authority, in writing, no later than **4:00 PM, November 14, 2019**. No such requests will be considered by the Authority if received after this date. Any request for an Approved Equal must be fully supported with technical data, test results, or other pertinent information as evidence that the substitute offered is equal to or better than the specification requirement. In addition, any test requirements in the specifications that pertain to an item under consideration for Approved Equal must be submitted with the request for Approved Equal. All requests for Approved Equals shall be addressed to the Contract Officer, Contracts and Procurement at the address set forth in Special Provision 13.

To be considered, all requests for approved equals must be in writing, separately identified and delineated for each Technical Specification, Special Provision, or other item, and must be submitted on Form B-13, Request for Approved Equals included in these Solicitation Documents.

A "denial" response from the Authority on a properly submitted written approved equals request or, in the absence of written requests for approved equals per the requirements and in the form set forth above, such submission or lack of submission thereof shall constitute a Bidder's acknowledgment and acceptance of all terms, conditions, specifications, and provisions contained in this solicitation.

- C. The Authority's reply to requests received pursuant to Paragraph B above will be posted on the Authority's Website at www.wheelsbus.com on **November 19, 2019**.

9. BID FORMS

Bids must be submitted on the bid forms provided. Bids submitted in any other form will be considered non-responsive and may be rejected. Any bid which is conditional in whole

or in part, which revises or omits any requirement or provision of the Contract Documents and Specifications, which is based on any substitution for an item specified in the Contract Documents and Specifications when such substitution has not received formal approval by the Authority, or which includes an escalation clause or any other requirements or provisions not contained in the Contract Documents and Specifications may be considered non-responsive, and for that reason rejected.

10. BID PRICES/COMPLETION OF BID FORM

It is the intention of the Authority to award one Contract to the lowest responsive and responsible bidder for performing the work specified in the Contract Specifications. The determination of award will be made based on the lowest, responsive and responsible bid based upon a comparison of the Grand Total Bid Price as indicated on the Bid Form.

No Contractor or subcontractor may be listed on a bid proposal or awarded a contract for a public works project unless registered with Department of Industrial Relations (DIR) pursuant to Labor Code section 1725.5 at the time of bid. For federally funded projects, the Contractor and subcontractors must be registered at the time of contract award. (See Labor Code section 1771.1(a).)

This Contract is subject to monitoring and enforcement by the DIR pursuant to Labor Code Section 1771.4. The Contractor must post Site notices, as prescribed by Title 8 California Code of Regulations Section 16451(d). The Contractor and all subcontractors shall furnish the records specified in Labor Code Section 1776 directly to the Labor Commissioner, monthly in a format prescribed by the Labor Commissioner.

11. PERFORMANCE OF WORK

Contractor shall commence work only upon the Authority's issuance of a written Notice to Proceed, and shall continue until project acceptance, unless terminated sooner pursuant to Special Provision 26. Refer to Special Provision 20 for required time to complete the Project.

12. BIDDER'S SECURITY

Each bidder shall submit with its bid a Bidder's Security in the amount of at least ten percent (10%) of the total amount of the bid in a form satisfactory to the Authority, and as more particularly specified in Section 8 of the General Conditions and Instructions for Bidders.

13. MARKING AND MAILING BIDS/BID OPENING

Two counterparts – comprised of one original, and one duplicate of each bid, together with all of the required bid documents, shall be securely sealed in an envelope.

All bids must be received by the Authority's Contracts & Procurement Department by **2:00 PM on December 6, 2019**, at which time they will be opened and read.

The envelope shall be clearly marked with the bid number and shall also include the name and address of the bidder. The bid submittal shall be mailed or personally delivered to:

Livermore Amador Valley Transit Authority
1362 Rutan Court, Suite 100
Livermore, CA 94551
Attention: Procurement Officer

BIDS RECEIVED AFTER THE TIME AND DATE SPECIFIED WILL BE RETURNED UNOPENED.

14. AWARD OF CONTRACT OR REJECTION OF BIDS

With regard to Section 18 of the General Conditions and Instructions for Bidders, the award of Contract, if any, will be made within (120) calendar days after bid opening to the lowest responsive, responsible bidder. No bidder may withdraw its bid during said time period of (120) days.

Each bidder must submit a price quotation for the Grand Total Bid Price on the Bid Form. In determining the lowest responsive and responsible bidder, the Authority shall compare and evaluate the submitted bids in their entirety and make a determination on the basis of the bid submittals. Notification of award of Contract shall be made in writing to all bidders.

The Authority reserves the right to accept or reject any and all bids, or any items thereof; or to waive any informality or irregularity in the bids or in the bidding procedures.

15. CONTRACT BONDS

A. PERFORMANCE BOND

The bidder to whom the Contract is awarded shall furnish a **Performance Bond**, in an amount not less than 100 percent of the Grand Total Bid price, to guarantee performance of the contract.

The Performance Bond shall be on the forms bound herewith and shall be executed as surety by a corporation authorized to issue surety bonds in the State of California, with a financial condition and record of service satisfactory to Authority.

B. PAYMENT BOND

The bidder to whom the Contract is awarded shall furnish a **Payment Bond**, in an amount not less than 100 percent of the Grand Total Bid price, to secure payment of all persons supplying labor or materials for the construction of the work. Should the actual contract value exceed the Grand Total Bid Price during the contract term, the Payment Bond shall be increased in an amount not less than 100% of the increased value.

The Payment Bond shall be on the forms bound herewith and shall be executed as surety by a corporation authorized to issue surety bonds in the State of California, with a financial condition and record of service satisfactory to Authority.

All alterations, extensions of time, extra and additional work and other changes authorized by the Contract Documents may be made without securing the consent of the surety or sureties on the Payment Bond.

16. INSURANCE

The insurance requirements specified in this section shall apply to Contractor and any subcontractors, suppliers, temporary workers, independent contractors, leased employees, or any other persons, firms or corporations that Contractor

authorizes to work under this Agreement (hereinafter collectively referred to as "Agents"). Contractor and all Agents are required to procure and maintain at their sole cost and expense the insurance coverages subject to all of the requirements set forth below. Such insurance shall remain in full force and effect throughout the term of this Agreement. To the extent that any Agent does not procure and maintain such insurance coverage, Contractor shall be responsible for said coverage and assume any and all costs and expenses that may be incurred in securing said coverage or in fulfilling Contractor's indemnity obligation as to itself or any of its Agents in the absence of coverage. In the event Contractor or its Agents procure excess or umbrella coverage to maintain certain requirements outlined below, these policies shall also satisfy all specified endorsements and stipulations, including provisions that the Contractor's insurance be primary without any right of contribution from the Authority. Prior to beginning work under this contract, Contractor shall provide the Authority with satisfactory evidence of compliance with the insurance requirements of this section.

A. Minimum Types and Scope of Insurance

1.) Workers' Compensation and Employers' Liability Insurance

- a. Workers' Compensation with Statutory Limits, as required by Section 3700 et seq of the California Labor Code, or any subsequent amendments or successor acts thereto governing the liability of employers to their employees.
- b. Employer's Liability coverage with minimum limits of \$1 million.
- c. Such insurance shall include the following endorsement as further detailed in the Endorsements Section below:
 - Waiver of Subrogation.

2.) Commercial General Liability Insurance

Commercial General Liability insurance for bodily injury and property damage coverage with a combined single limit for bodily injury and property damage of at least \$1 million per occurrence or claim and a general aggregate limit of at least \$2 million. Such insurance shall cover all of Contractor's operations both at and away from the project site.

- a. This insurance shall include coverage for, but not be limited to:
 - Premises and operations.
 - Products and completed operations.
 - Contractual liability.
 - Personal injury.
 - Advertising injury.
 - Explosion, collapse, and underground coverage (xcu).
 - Broad form property damage.
- b. Such insurance shall include the following endorsements as further detailed in the Endorsements Section below:
 - Additional Insured.
 - Cross Liability or Severability of Interests Clause.
 - Primary and Non-Contributory wording.

Products and completed operations insurance shall be maintained for three (3) years following termination of this Agreement.

3.) Business Automobile Liability Insurance

Business Automobile Liability insurance providing bodily injury and property damage with a combined single limit of at least \$1 million per occurrence.

- a. This insurance shall include coverage for, but not be limited to:
 - All Owned vehicles.
 - Non-owned vehicles.
 - Hired or rental vehicles.

- b. Such insurance shall include the following endorsements as further detailed in the Endorsements Section below:
 - Additional Insured.
 - Primary and Non-Contributory wording.
 - Waiver of Subrogation.

4.) Property Insurance

Property insurance with Special Form coverage including theft, but excluding earthquake, with limits at least equal to the replacement cost of the property described below.

- a. This insurance shall include coverage for, but not be limited to:
 - Contractor's own business personal property and equipment to be used in performance of this Agreement.
 - The Authority's interest in materials or property to be installed, if any.
 - Debris removal.
 - Builders risk for property in the course of construction.

- b. Such insurance shall include the following endorsement as further detailed in the Endorsements Section below:
 - Waiver of Subrogation.

B. ENDORSEMENTS

1.) Additional Insured

The referenced policies and any Excess or Umbrella policies shall include as Additional Insureds the Livermore Amador Valley Transit Authority and its directors, officers, employees, volunteers and agents while acting in such capacity, and their successors or assignees, as they now, or as they may hereafter be constituted, singly, jointly or severally.

2.) Waiver of Subrogation

The referenced policies and any Excess or Umbrella policies shall contain a waiver of subrogation in favor of the Livermore Amador Valley

contain a waiver of subrogation in favor of the Livermore Amador Valley Transit Authority and its officers, directors, employees, volunteers and agents while acting in such capacity, and their successors and assignees, as they now, or as they may hereafter be constituted, singly, jointly or severally.

3.) Primary Insurance

The referenced policies and any Excess and Umbrella policies shall indicate that they are primary to any other insurance and the insurance company(ies) providing such policy(ies) shall be liable thereunder for the full amount of any loss or claim, up to and including the total limit of liability, without right of contribution from any of the insurance effected or which may be effected by the Livermore Amador Valley Transit Authority.

4.) Severability of Interests or Cross Liability

The referenced policies and any Excess or Umbrella policies shall contain either a Cross Liability endorsement or Severability of Interests Clause and stipulate that inclusion of the Livermore Amador Valley Transit Authority as an Additional Insured shall not in any way affect Authority's rights either as respects any claim, demand, suit or judgment made, brought or recovered against the Contractor. Said policy shall protect Contractor and the Livermore Amador Valley Transit Authority in the same manner as though a separate policy had been issued to each, but nothing in said policy shall operate to increase the insurance company's liability as set forth in its policy beyond the amount or amounts shown or to which the insurance company would have been liable if only one interest had been named as an insured.

C. EVIDENCE OF INSURANCE

All Coverages

Prior to commencing work or entering onto the Property, Contractor shall provide the Contract Administrator of the Authority with a certificate evidencing coverage, and upon request, a certified duplicate original of the policy. The certificate shall also show that the Contractors' policy(ies) will not be cancelled or coverage altered without 30 days prior written notice to the Authority's Executive Director.

D. GENERAL PROVISIONS

1.) Notice of Cancellation

The policies shall provide that the Contractors' policies will not be cancelled or have limits reduced or coverage altered without 30 days prior written notice to the Authority's Executive Director.

2.) Acceptable Insurers

All policies will be issued by insurers acceptable to the Authority (generally with a Best's Rating of A- 10 or better).

3.) Self-insurance

Upon evidence of financial capacity satisfactory to the Authority and Contractor's agreement to waive subrogation against the Authority respecting any and all claims that may arise, Contractor's obligation

hereunder may be satisfied in whole or in part by adequately funded self-insurance.

4.) Failure to Maintain Insurance

All insurance specified above shall remain in force until all work to be performed is satisfactorily completed, all of Contractor's personnel and equipment have been removed from the Authority property, and the work has been formally accepted. The failure to procure or maintain required insurance and/or an adequately funded self-insurance program will constitute a material breach of this Agreement.

5.) Claims Made Coverage

If any insurance specified above shall be provided on a claim-made basis, then in addition to coverage requirements above, such policy shall provide that:

- a. Policy retroactive date coincides with or precedes the Contractor's start of work (including subsequent policies purchased as renewals or replacements).
- b. Contractor shall make every effort to maintain similar insurance for at least three (3) years following project completion, including the requirement of adding all named insureds.
- c. If insurance is terminated for any reason, Contractor agrees to purchase an extended reporting provision of at least three (3) years to report claims arising from work performed in connection with this Agreement.
- d. Policy allows for reporting of circumstances or incidents that might give rise to future claims.

6.) Deductibles and Retentions

Contractor shall be responsible for payment of any deductible or retention on Contractor's policies without right of contribution from the Authority.

E. PAYMENT OF WORKERS COMPENSATION

Pursuant to the requirements of Section 1860 of the California Labor Code, the Contractor will be required to secure the payment of workers' compensation to its employees in accordance with the provisions of Section 3700 of the Labor Code. By submitting a bid, the Contractor certifies the following:

"I am aware of the provisions of Section 3700 of the Labor Code which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this Contract."

17. LABOR CODE REQUIREMENTS

The work performed under this Contract is subject to Public Works requirements. To the extent applicable, Contractors shall comply with California Labor Code and Prevailing

Wage Laws. General Wage Determinations issued by the Director of Industrial Relations as applicable to the Livermore Amador Valley Transit Authority are available for inspection at the offices of the Authority.

Attention is directed to the following requirements of the Labor Code:

- A. Hours of Labor. Eight hours labor constitutes a legal day's work. The Contractor or subcontractor shall, as a penalty to the state or political subdivision on whose behalf the Contract is made or awarded, forfeit \$25 for each worker employed in the performance of the Contract by the Contractor or subcontractor under him for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of the Labor Code Section 1813. Notwithstanding the provisions of Sections 1810 to 1814, inclusive, of the Labor Code and notwithstanding any stipulation inserted in any contract pursuant to the requirements of these sections, work performed by employees of the Contractor or subcontractor in excess of 8 hours per day and 40 hours during any one week shall be permitted upon compensation for all hours worked in excess of 8 hours per day and in excess of 40 hours during any one week at not less than 1½ times the basic rate of pay, as provided for in Section 1815. In addition, contractor/subcontractor may be required to pay double the basic rate of pay for all hours worked in excess of 12 hours in any workday and under other circumstances. (See California Code of Regulations sections 16100(c)(6), 16200(a)(3)(F) and applicable prevailing wage determinations.)
- B. Prevailing Wages. The Contractor and any subcontractor shall comply with Labor Code Sections 1774 and 1775. Pursuant to Section 1775, the Contractor and any subcontractor shall, as a penalty, forfeit to the state or political subdivision not more than \$50 for each calendar day, or portion thereof, for each worker paid less than the prevailing rate as determined by the Director of Industrial Relations for the work or craft in which the worker is employed under the contract. The amount of this forfeiture shall be determined by the Labor Commissioner and shall be based on consideration of whether the failure to pay the correct rate of per diem wages was due to the Contractor's good-faith mistake, and on the previous record of the Contractor or subcontractor in meeting their respective prevailing wage obligations. In addition to said penalty, the difference between such prevailing wage rates and the amount paid to each worker for each calendar day or portion thereof for which each worker was paid less than the prevailing wage rate shall be paid to each worker by the Contractor or subcontractor. The Contractor shall make payroll records available upon request.

If a worker employed by a subcontractor on a public works project is not paid at least the general prevailing per diem wages by the subcontractor, the Contractor shall not be liable for the penalties described above unless the Contractor had knowledge of that failure of the subcontractor to pay the specified prevailing rate of wages to those workers or unless the Contractor fails to comply with all of the following requirements:

The contract executed between the Contractor and the subcontractor for the performance of work on the public works project shall include a copy of the provisions of Sections 1771, 1775, 1776, 1777.5, 1813, and 1815 of the Labor Code.

The Contractor shall monitor the payment of the specified general prevailing rate of per diem wages by the subcontractor to the employees, by periodic review of the certified payroll records of the subcontractor.

Upon becoming aware of the subcontractor's failure to pay at least the specified prevailing rate of wages to the subcontractor's workers, the Contractor shall diligently take corrective action to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the subcontractor for work performed on the public work project.

Prior to making final payment to the subcontractor for work performed on the public works project, the Contractor shall obtain an affidavit signed under penalty of perjury from the subcontractor that the subcontractor has paid at least the specified general prevailing rate of per diem wages to the subcontractor's employees on the public works project and any amount due pursuant to 1813 of the Labor Code.

Pursuant to Section 1775 of the Labor Code, the Division of Labor Standards Enforcement shall notify the Contractor on a public works project within 15 days of the receipt by the Division of Labor Standards Enforcement of a complaint of the failure of a subcontractor on that public works project to pay workers at least the general prevailing rate per diem wages.

Pursuant to the provisions of Section 1773 of the Labor Code, the Owner has obtained the general prevailing rate of wages applicable to categories of workers the Owner anticipates will be utilized for this project for straight time, overtime, Saturday, Sunday and holiday work. The holiday wage rate listed shall be applicable to all holidays recognized in the collective bargaining agreement of the particular craft, classification or type of workmen concerned, or if no collective bargaining agreement applies, those holidays identified in Government Code Section 6700. Prevailing wage rates for this project are available at the offices of the Authority. In the event that the Contractor intends to utilize categories of workers different from, or in addition to, those anticipated by the Owner, it shall be Contractor's responsibility to bring such categories of workers to the Owner's attention immediately, and to obtain the appropriate wage rate from the Department of Industrial Relations (with the Owner's assistance if necessary). (See Title 8 California Code of Regulations Section 16202.)

The Contractor shall post general prevailing wage rates at a prominent place at the site of the work.

Pursuant to Labor Code Section 1773.6 and Title 8 California Code of Regulations Section 16204, changes in general prevailing wage determinations shall apply to the project only if issued by the Director of Industrial Relations prior to the Owner's bid issuance date.

The Authority will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth in the Contract. The possibility of wage increases is one of the elements to be considered by the Contractor in determining its bid, and will not under any circumstances be considered as the basis of a claim against the Authority on the Contract.

- C. Payroll Records. Contractor and each subcontractor shall submit electronic certified payroll records to the California Labor Commissioner in the manner and format set forth in California Labor Code Section 1771.4. The Contractor's attention is directed to the following provisions of Labor Code Section 1776. The Contractor shall be responsible for compliance with these provisions by his subcontractors.

1. The Contractor and each subcontractor shall keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work.
2. The payroll records enumerated under subdivision (1) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:
 - (a) A certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his or her authorized representative on request.
 - (b) A certified copy of all payroll records enumerated in subdivision (1) shall be made available for inspection or furnished upon request to the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations.
 - (c) A certified copy of all payroll records enumerated in subdivision (1) shall be furnished to the Authority's Labor Compliance Officer at the time the Contractor invoices for authorized work.

A certified copy of all payroll records enumerated in subdivision (1) shall be made available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the Owner, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (b), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the Contractor, subcontractor and the entity through which the request was made. The public shall not be given access to such records at the principal office of the Contractor.
3. Contractor and each subcontractor shall file a certified copy of the records enumerated in subdivision (1) with the entity that requests such records within 10 days after receipt of a written request.
4. Any copy of records made available for inspection as copies and furnished upon request to the public or the Owner, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be redacted in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor shall not be redacted.
5. The Contractor shall inform the Owner of the location of records enumerated under subdivision (1), including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.

6. The Contractor shall have 10 days in which to comply subsequent to receipt of written notice requesting the records enumerated in subdivision (1). Failure to comply after such 10-day period will subject Contractor to a penalty to the state or the political subdivision on whose behalf the contract is made or awarded, in the amount of \$100 for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from progress payments then due.
 7. The penalties specified in subdivision (7) above for noncompliance with the provisions of said Section 1776 may be withheld from any monies due or which may become due to the Contractor.
 8. The Contractor and each subcontractor shall preserve their payroll records for a period of 3 years from the date of completion of the Contract.
- D. Apprentices. The Contractor shall fully comply with the requirements of Sections 1777.5 and 1777.6 of the California Labor Code and the regulations of the California Apprenticeship Council. In accordance with Section 1777.5, the Contractor shall secure the necessary certificates and shall contribute to the apprenticeship fund or funds, as provided for therein. The Contractor shall require each subcontractor who will perform work or labor or render service to the Contractor in or about the construction of the work to comply fully with Sections 1777.5 and 1777.6 of the Labor Code. Information relative to apprenticeship standards, wage schedules and other requirements may be obtained from the State Division of Apprenticeship Standards and its branch offices.

For information regarding labor classifications and rate determinations, please visit the California Department of Industrial Relations website at <http://www.dir.ca.gov>. Bidders may also contact the Authority's Procurement Officer with questions or submit their questions in writing pursuant to Special Provision 6.

18. SAFETY REQUIREMENTS

The Contractor shall promptly and fully comply with and carry out, and shall without separate charge to the Authority, enforce compliance with the safety and first aid requirements prescribed by applicable State and Federal laws and regulations, rules and orders, in an effort to ensure that work is done in a safe manner and that the safety and health of the employees and the people of local communities is safeguarded. Compliance with the provisions of this Section by subcontractors shall be the responsibility of the Contractor. All installed material, equipment and structures, without separate charge to the Authority, shall fully conform with all applicable State and Federal safety laws, rules, regulations and orders and it shall be the Contractor's responsibility to furnish only such material, equipment and structures, notwithstanding any omission in the Contract Documents related thereto or the indication of some other particular material, equipment or structure.

Upon the failure of the Contractor to comply with any of the requirements of this Section, the Project Manager shall have the authority, but not the duty, to stop any operations of the Contractor affected by such failure until such failure is remedied. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for increased costs or damages by the Contractor.

The Contractor shall, at all times, exercise reasonable precautions for the safety of persons engaged in the performance of the work under this Contract (“Work”) and those persons and property in the surrounding areas, utilizing signs and barriers as needed.

The Contractor shall provide such equipment and facilities as are necessary or required, in case of accident, for first aid service to any person who may be injured in the progress of the Work and shall have standing arrangements for the removal and hospital treatment of any employee who may be injured or who may become ill.

The Contractor shall keep records of all accidents in a bound book, including in such records such data as may be required by the laws and regulations of the State of California.

The Contractor must promptly report in writing to the Authority all accidents whatsoever, arising out of or in conjunction with the performance of the Work, whether on or adjacent to the site, which cause death, personal injury or property damages, giving full details and statements of witnesses. In addition, if death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone to the Authority.

If any claim is made by any third person against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the fact in writing to the Authority, giving full details of the claim.

19. SUBMITTALS

Within 10 days of the issuance of the NTP, and prior to any fabrication or other performance, the Contractor will present to the Authority Facilities Contract Administrator, a work schedule and a summary of materials to be used in the performance of this project.

20. TIME AND SCHEDULE FOR PERFORMANCE

Contract personnel will be allowed at the work site only during normal working hours (Monday through Friday, 8:00 AM thru 5:00 PM, City holidays excluded), unless otherwise authorized in writing by the Authority Contract Officer and the local agency in which the work is to be completed. Lane closures will be allowed Monday through Friday, 9:00 AM through 3:00 PM after approval of a traffic control plan by the Engineer. Liquidated Damages may be applied to any dated missed below. The work schedule will be as follows, with “days” meaning calendar days:

NTP	NTP issue date
NTP + 110 days	Work to be substantially completed, inspected, punch list finalized
NTP + 120 days	Work to be completed, inspected and approved

21. DESIGNATION OF SUBCONTRACTORS

Contractor shall not subcontract any work to be performed by it under this Contract without the prior written approval of the Authority. Contractor shall be solely responsible for reimbursing any subcontractors and Authority shall have no obligation to them. Attention is directed to the requirements of Sections 4100 to 4113, inclusive, of the California Public Contract Code which are applicable to this Contract. Each Contractor shall list the name and business address of each subcontractor to whom the Contractor proposes to subcontract a portion of the work in an amount in excess of one-half of one percent (.5%) of the Total Contract Price, along with a description of the portion of the work which shall be done by each subcontractor, as part of the “Designation of

Subcontractors and Sub-Bidders” form included in the Bid Forms. Contractors are prohibited from performing work on a public works project with a subcontractor who is ineligible to perform work on the public works project pursuant to Section 1777.1 or 1777.7 of the Labor Code.

The Contractor shall pay any subcontractors approved by LAVTA for work that has been satisfactorily performed no later than ten (10) days from the date of successful completion of such work. In the event Contractor does not make such payments to the subcontractors in accordance with the time periods in this section, Contractor will be subject to a charge of two percent (2%) per month on the untimely or improperly withheld payment.

22. DISADVANTAGED BUSINESS ENTERPRISE PROGRAM

The Authority, a recipient of federal financial assistance from the Federal Transit Administration (FTA), is committed to and has adopted a Disadvantaged Business Enterprise Program for contracts in accordance with federal regulations 49 CFR Part 26, issued by the U. S. Department of Transportation (U.S. DOT).

It is the policy of the Authority to ensure nondiscrimination in the award and administration of all contracts and to create a level playing field on which Disadvantaged Business Enterprises (DBEs) can compete fairly for contracts and subcontracts relating to the Authority's construction, procurement and professional services activities. To this end, the Authority has developed procedures to remove barriers to DBE participation in the bidding and award process and to assist DBEs to develop and compete successfully outside of the DBE Program.

Pursuant to 49 CFR §26.13, and as a material term of any agreement with the Authority, the Contractor hereby makes the following assurance and agrees to include this assurance in any agreements it makes with Subcontractors in the performance of this contract:

The Contractor or Subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of U.S. DOT-assisted contracts. Failure by the Contractor or Subcontractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the Authority deems appropriate.

The Contractor shall cooperate with the Authority in meeting its commitments and objectives with regards to insuring non-discrimination in the award and administration of Authority contracts and shall use its best efforts to insure that barriers to participation of Disadvantaged Business Enterprises (DBE) do not exist. To better help the Authority record and encourage DBE participation, all Bidders must complete, sign, and submit with their Bid the DBE/Subcontractor forms included in the Bid Forms.

By submitting a Bid, a Bidder is deemed to have made the foregoing assurance and to be bound by its terms.

23. FINAL ACCEPTANCE

The Contractor will schedule a preliminary inspection with the Authority Facilities Contract Administrator when work is substantially complete. This inspection will assess the work based on the contract specifications and related data as previously accepted by the

Authority. Punch list items will be clearly noted with copies provided for both parties. Within 5 days of the completion of the punch list work the Contractor will schedule a final inspection with the Authority Facilities Contract Administrator.

24. LIQUIDATED DAMAGES

TIME IS OF THE ESSENCE IN THIS CONTRACT. In accordance with General Condition 24, and pursuant to Government Code Section 53069.85, the Contractor shall pay to the Authority the sum of two thousand six-hundred dollars (\$2,600.00) per day for each and every calendar day that the Contractor fails to meet the schedule as specified in Special Provision 20.

The Contractor will be granted an extension of time and will not be assessed with liquidated damages for any delay beyond the time period specified in Special Provision 21 for delays caused by acts of God or of the public enemy, fire, floods, epidemics, quarantine, restrictions, strikes, labor disputes, shortage of materials and freight embargoes, or other causes deemed by the Authority to be beyond the reasonable control of the Contractor, provided Contractor notifies the Authority Contract Administrator in writing of the causes of delay within five (5) calendar days from the beginning of any such delay. The Authority Contract Administrator shall ascertain the nature of the delay and determine whether an extension of time is warranted, which determination shall be final and conclusive. Contractor has the burden of proof that the delay was beyond its control. The Contractor shall not be liable for any loss, damage, or delay as herein provided that is due to any cause beyond the Contractor's reasonable control.

25. PAYMENT AND INVOICING INSTRUCTIONS

The Authority will make a single lump sum payment to the Contractor, which shall include full compensation for furnishing all of the materials, labor, tools, equipment, warranty, bonding, and incidentals necessary to complete the work. No additional compensation will be allowed without the prior authorization from the Authority's Executive Director. The Authority will inspect all work prior to payment. Payment will be made at the lump sum Grand Total Bid Price amount included on contractor's bid form.

After Final Acceptance of the work the Contractor shall thereupon furnish to the Authority satisfactory evidence that all liens, claims and demands of Subcontractors, laborers and materialmen, arising out of such work, are fully satisfied, and that all of the work is fully released from all liens, claims and demands of whatever kind and nature and whether just or otherwise. The Authority shall thereupon record a notice of completion and Contractor may invoice the Authority for final payment. The Authority shall make payment to the Contractor within 30 days of receipt of proper statements or invoices for the completed work. If the Authority fails to make payment in a timely manner, it shall pay interest to the Contractor at the legal rate set forth in Section 685.010 (e) of the California Code of Civil Procedure.

The acceptance by the Contractor of the final payment, whether such payment be made pursuant to any judgment of any court, or otherwise, shall constitute and operate as a release to the Authority of any and all claims of the Contractor and liability to the Contractor for anything theretofore done or furnished for or relating to or arising out of this Contract and the work done hereunder, and for any prior act, neglect or default on the part of the Authority or any of its directors, officers, agents or employees excepting only a claims against the Authority for the amounts deducted or retained in accordance with the terms and provisions of this Contract by law.

Should the Contractor refuse to accept the final payment as tendered by the Authority, it shall constitute waiver of any right to interest thereon.

The Authority is exempt from the payment of Federal Excise and Transportation Taxes, so such taxes must not be included in proposed prices. Sales tax should not be included in the proposed prices and will not be considered for the purpose of the bid evaluation.

26. TERMINATION OF CONTRACT

The Authority may terminate this Contract at any time by giving the Contractor (30) calendar days' written notice. Notice of termination shall be by certified mail. Upon termination, the Authority shall pay the Contractor its allowable costs incurred to date of termination and those costs deemed necessary by Authority to effect termination. In the event that the Contractor at any time during the entire term of this Contract breaches the requirements or conditions of the Contract, and does not within ten (10) calendar days of receipt of notice from the Authority cure such breach or violation, the Authority may immediately terminate this Contract and shall pay the Contractor only its allowable costs to date of termination.

27. CLAIMS PROCEDURES

Compliance with all change order procedures is a prerequisite to filing a Public Contract Code Claim pursuant to this Section. Claims must be submitted no later than (a) 30 days after change order negotiations and procedures are complete as per Section 5 or (b) 30 days after the occurrence of the event giving rise to the claim.

In accordance with the procedures set forth in Public Contract Code Sections 9204 and 20104-20104.6, a Contractor may submit a claim by registered or certified mail with return receipt requested, for one or more of the following: (a) a time extension, including, without limitation, for relief from damages or penalties for delay assessed by LAVTA; (b) payment by LAVTA of money or damages arising from work done by, or on behalf of, the Contractor pursuant to this contract and payment for which is not otherwise expressly provided or to which the Contractor is not otherwise entitled; or (c) payment of an amount that is disputed by LAVTA.

The Contractor shall furnish reasonable documentation to support the claim, including but not limited to: 1) a clear, concise recital of the basis upon which the claim is asserted, including a designation of the provisions of the Contract upon which the claim is based, 2) a statement as to the amount of time and/or compensation sought pursuant to the claim; 3) whether the Contractor's claim arises from an ongoing occurrence, and if so a description of the specific Work activities affected by the claim, 4) a time impact analysis in the event that Contractor requests a time extension, 5) full and complete cost records supporting the amount of any claim for additional compensation, and 6) a notarized certification by the Contractor as follows: "Under the penalty of law for perjury or falsification and with specific reference to the California False Claims Act, Government Code Section 12650 et seq., the undersigned hereby certifies that the information contained herein is a true, accurate and complete statement of all features relating to the claim asserted." Failure by the Contractor to provide sufficient documentation will result in denial of the claim. LAVTA reserves the right to request additional documentation, or clarification of the documentation provided.

Upon receipt of a claim, LAVTA will conduct a reasonable review and provide a written statement to the Contractor identifying what portion of the claim is disputed and what portion is undisputed within 45 days of receipt of the claim. LAVTA and Contractor may, by mutual agreement, extend the 45 day time period. For any undisputed portion of a claim, LAVTA must make payment within 60 days of its issuance of the written statement.

If the Contractor disputes LAVTA's written statement, or if LAVTA fails to respond, the Contractor may demand an informal conference to meet and confer for settlement of the

issues in dispute. LAVTA will then schedule the meet and confer conference within 30 days of the demand. Within 10 business days following the meet and confer conference, LAVTA will provide a written statement identifying the portion of the claim that remain in dispute. Any payment due on an undisputed portion of the claim will be made within 60 days of the meet and confer conference.

After the meet and confer conference, any disputed portion of the claim shall be submitted to non-binding mediation. Alternatively, upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable. If mediation is unsuccessful, the parts of the claim that remain in dispute shall be subject to applicable procedures set forth below.

Failure of a public entity to respond to a claim within the time periods described above shall result in the claim being deemed rejected in its entirety. Additionally, amounts not paid in a timely manner shall bear interest at 7 percent per year.

In the event that the mediation is unsuccessful, Contractor must file a government claim pursuant to Government Code Sections 910 et seq. in order to initiate a civil action.

In any civil action filed to resolve claims, the court shall submit the matter to nonbinding mediation within 60 days following the filing or responsive pleading, provided that the parties have not already participated in mediation of the claim as outlined above. If the matter remains in dispute after nonbinding mediation, the court shall submit the matter to judicial arbitration pursuant to Code of Civil Procedure Section 1141.10 et seq. If the matter remains in dispute after judicial arbitration, LAVTA or the Contractor may request a trial de novo.

28. TECHNICAL ASSISTANCE

The Contractor shall make available to the Authority, upon request, technical assistance for the purpose of assisting the Authority in resolving any problems that may arise in connections with the provision of any of the services called for under this Contract.

29. PROTECTION OF PROPERTY

The Contractor shall exercise every precaution to insure that no injury or damage occurs to Authority property or any existing structure as a result of its operations. Should any existing structure be damaged by or through any of the Contractor's operations, such injury or damage shall be replaced or repaired immediately by the Contractor, at Contractor's sole cost, in a manner satisfactory to the Authority.

30. DISQUALIFICATION QUESTIONNAIRE

Bidders shall complete and submit, under penalty of perjury, a standard form of questionnaire inquiring whether such prospective Bidder, any officer of such Bidder, or any employee of such Bidder who has a proprietary interest in such Bidder, has ever been disqualified, removed or otherwise prevented from Bidding on, or completing a federal, state or local government project because of a violation of law or safety regulation, and if so, to explain the circumstances.

A Bid may be rejected on the basis of a Bidder, any officer of such Bidder, or any employee of such Bidder who has a proprietary interest in such Bidder, having been disqualified, removed or otherwise prevented from Bidding on, or completing a federal, state, or local project because of a violation of law or a safety regulation.

All Bids shall be accompanied by an executed Disqualification Questionnaire as required by Public Contract Code Section 10162, on the form provided in the Bid Forms, see B-11.

31. AUTHORITY LOCATION

The facility where the work is to be performed is
Various signalized intersections
Dublin, Pleasanton, and Livermore, CA

32. NON-COLLUSION DECLARATION

Pursuant to Public Contract Code section 7106, Contractor shall execute a Non-Collusion Declaration, in a form provided by the Authority, which is attached and incorporated herein.

33. ASSIGNMENT OF CLAIMS

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the Contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the Contractor, without further acknowledgement by the parties.

34. THIRD-PARTY CLAIMS

- A. Pursuant to Public Contracts Code Section 9201, the Authority shall have full authority to compromise or otherwise settle any claim relating to the Contract at any time.
- B. The Authority shall provide for timely notification to the Contractor of the receipt of any third-party claim, relating to the contract. Notice shall be in writing and will be provided within thirty (30) days.
- C. The Authority shall be entitled to recover its reasonable costs incurred in providing the notification required by subdivision B.

35. UTILITY RELOCATION

Pursuant to California Government Code Section 4215, if during the course of the work the Contractor encounters utility installations which are not shown or indicated in the contract plans or in the specifications or which are found in a location substantially different from that shown, and such utilities are not reasonably apparent from visual examination of the work site, then it shall promptly notify LAVTA in writing. Where necessary for the work of the Contract, LAVTA will amend the contract to adjust the scope of work and the compensation to allow the Contractor to make such adjustment, rearrangement, repair, removal, alteration, or special handling of such utility, including repair of the damaged utility. If the Contractor fails to give the notice specified above and thereafter acts without instructions from LAVTA, then it shall be liable for any or all damage to such utilities or other work of the Contract which arises from its operations subsequent to the discovery, and it shall repair and make good such damage at its own cost.

36. EXCAVATION

In accordance with state law (Public Contract Code Section 7104), with respect to any work involving digging trenches or excavations that extend deeper than four feet, the Contractor shall notify LAVTA promptly in writing of any of the following conditions: (a) material that the Contractor believes may be hazardous waste, as defined in California Health and Safety Code Section 25117, that is required to be removed to a Class I, Class II or Class III disposal site in accordance with provisions of existing law; (b) subsurface or latent physical conditions at the site differing from those indicated; (c) unknown physical conditions at the site of any unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents. Contractor shall notify LAVTA of such conditions prior to disturbing them, and shall await direction from LAVTA as to how to proceed.

37. TRENCH SAFETY

For all contracts over \$25,000, excavation for any trench 5 feet or more in depth shall not begin until the Contractor has received approval from LAVTA, of the Contractor's detailed plan for worker protection from the hazards of caving ground during the excavation of such trench. Such plan shall be submitted at least 5 days before the Contractor intends to begin excavation for the trench and shall show the details of the design of shoring, bracing, sloping or other provisions to be made for worker protection during such excavation. No such plan shall allow the use of shoring, sloping or a protective system less effective than that required by the Construction Safety Orders of the Division of Industrial Safety; and if such plan varies from the shoring system standards established by the Construction Safety Orders, the plan shall be prepared and signed by an engineer who is registered as a Civil or Structural Engineer in the State of California. Attention is directed to the provisions of Section 6705 of the Labor Code concerning trench excavation safety plans.

38. HAZARDOUS CHEMICALS AND WASTE

The Contractor shall exercise every reasonable precaution to protect channels, storm drains, and bodies of water from pollution and shall conduct and schedule his operations so as to minimize or avoid muddying and silting of said channels, drains, and waters. Water pollution control work shall consist of constructing those facilities which may be required to provide prevention, control, and abatement of water pollution.

The Contractor shall bear full and exclusive responsibility for any release of hazardous or nonhazardous chemicals or substances during the course of the Work. The Contractor shall immediately report any such release to the Owner. The Contractor shall be solely responsible for all claims and expenses associated with the response to, removal and remediation of the release, including, without limit, payment of any fines or penalties levied against the Authority by any agency as a result of such release and shall hold harmless, indemnify and defend the Authority from any claims arising from such release. For purposes of this section only, the term "claims" shall include:

1. all notices, orders, directives, administrative or judicial proceedings, fines, penalties, fees or charges imposed by any governmental agency with jurisdiction, and
2. any claim, cause of action, or administrative or judicial proceeding brought against the Authority, its directors, employees, and agents for any loss, cost (including reasonable attorney's fees), damage or liability, sustained or suffered by any person or entity, including the Authority.

If the performance of the Work creates any hazardous wastes, those wastes shall be properly disposed of according to federal, state and local laws, at the expense of the Contractor. The Contractor shall dispose of the wastes under its own EPA Generator Number. In no event shall the Authority be identified as the generator. The Contractor shall notify the Authority of any such hazardous wastes, and the Authority reserves the right to a copy of the results of any tests conducted on the wastes and, at its cost, to perform additional tests or examine those wastes, prior to its disposition. The Contractor shall hold harmless, indemnify and defend the Authority from any claims arising from the disposal of the hazardous wastes, regardless of the absence of negligence or other malfeasance by Contractor.

39. PROMPT PAYMENT TO PRIME CONTRACTOR

As required by CA Public Contract Code, Section 20104.50:

- A. Should the Authority fail to make any payment within 30 days after receipt of an undisputed and properly submitted payment request from the Contractor, then the Authority will pay interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure.
- B. Upon receipt of a payment request, the Authority will act in accordance with both of the following:
 - 1. Each payment request will be reviewed by the Authority as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request.
 - 2. Any payment request determined not to be a proper payment request suitable for payment will be returned to the Contractor as soon as practicable, but not later than seven (7) days, after receipt. A request returned pursuant to this Section will be accompanied by a document setting forth in writing the reasons why the payment request is not proper.
- C. The number of days available to the Authority to make a payment without incurring interest pursuant to this article shall be reduced by the number of days by which the Authority exceeds the seven (7) day return requirement set forth above.
- D. For purposes of this Section:
 - 1. A "progress payment" includes all payments due the Contractor, except that portion of the final payment designated by the Contract as retention earnings. This project will not include progress payments, as Contractor will receive a lump sum payment upon issuance of Final Acceptance by LAVTA.
 - 2. A payment request shall be considered properly executed if funds are available for payment of the request, and payment is not delayed due to an audit inquiry by the financial officer of the Authority.

40. PROMPT PAYMENT TO SUBCONTRACTORS

- A. The Contractor shall pay any subcontractors for work that has been satisfactorily performed no later than seven (7) days from the date of Contractor's receipt of payments by the Authority. The Authority may require Contractor to provide documentation satisfactory to the Authority of Contractor's compliance with this requirement as a condition of final payment and release of contract retention.

- B. Within seven (7) days of receipt of retention by the original Contractor, Contractor shall release any applicable retention payments withheld to the subcontractor.

In the event Contractor does not make progress payments or release retention to the subcontractors in accordance with the time periods in this section, Contractor may be subject to a charge of two percent (2%) per month on the untimely or improperly withheld payment.

41. FEDERAL TRANSIT ADMINISTRATION REQUIRED CONTRACT CLAUSES

A. FLY AMERICA REQUIREMENTS.

The Contractor agrees to comply with 49 U.S.C. 40118 (the "Fly America Act") in accordance with the General Services Administration's regulations at 41 CFR Part 301 - 10, which provide that recipients and subrecipients of Federal funds and their consultants are required to use U.S. flag air carriers for U.S. Government-financed international air travel and transportation of their personal effects or property to the extent such service is available, unless travel by foreign air carrier is a matter of necessity as defined by the Fly America Act. The Contractor shall submit, if a foreign air carrier was used, an appropriate certification or memorandum adequately explaining why service by a U.S. flag air carrier was not available or why it was necessary to use a foreign air carrier and shall, in any event, provide a certificate of compliance with the Fly America requirements, if used. The Contractor agrees to include the requirements of this Section in all subcontracts that may involve international air transportation.

B. CARGO PREFERENCE REQUIREMENTS.

The Contractor agrees: (a) to use privately owned United States Flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this Contract by ocean vessels to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels; (b) to furnish within 20 working days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, "on-board" commercial ocean bill-of-lading in English for each shipment of cargo described in the preceding paragraph to the Division of National Cargo, Office of Market Development, Maritime Administration, Washington, DC 20590 and to the Authority (through the Contractor in the case of a subcontractor's bill-of-lading); and (c) to include these requirements in all subcontracts issued pursuant to this Contract when the subcontract may involve the transport of equipment, Material, or commodities by ocean vessel.

C. BUY AMERICA REQUIREMENTS.

The Contractor agrees to comply with 49 U.S.C. 5323(j) and 49 CFR Part 661, which provide that Federal funds may not be obligated unless steel, iron, and manufactured products used in FTA-funded projects are produced in the United States, unless a waiver has been granted by FTA or the product is subject to a general waiver.

All proposers must submit the appropriate Buy America certification to the Authority with their bids, except those subject to a general waiver. Bids or offers that are not accompanied by a completed Buy America certification must be rejected as nonresponsive. This requirement does not apply to lower tier subcontractors.

D. ENERGY CONSERVATION.

The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Federal Energy Policy and Conservation Act, 42 U.S.C. §§ 6321 et seq.

E. RECYCLED PRODUCTS.

The Contractor agrees to provide a preference for those products and services that conserve natural resources, protect the environment, and are energy efficient by complying with and facilitating compliance with Section 6002 of the Resource Conservation and Recovery Act, as amended, 42 U.S.C. § 6962, and U.S. Environmental Protection Agency (U.S. EPA), "Comprehensive Procurement Guideline for Products Containing Recovered Materials," 40 C.F.R. part 247.

F. CLEAN WATER AND AIR REQUIREMENTS.

The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Federal Water Pollution Control Act, as amended, 33 U.S.C. 1251 et seq., and the Clean Air Act, as amended, 42 U.S.C. 7401 et seq. The Contractor agrees to report each violation to the Authority and understands and agrees that the Authority will, in turn, report each violation as required to assure notification to the FTA and the appropriate EPA regional office.

The Contractor also agrees to include these requirements in each subcontract exceeding \$150,000 financed in part or in whole with federal assistance provided by the FTA.

G. LOBBYING.

Contractor shall file the certification required by 49 CFR Part 20, "New Restrictions on Lobbying." Contractor shall certify that it will not and has not used Federally appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, officer or employee of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352. Contractor shall also disclose the name of any registrant under the Lobbying Disclosure Act of 1995 who has made lobbying contacts on its behalf with non-Federal funds with respect to that Federal contract, grant or award covered by 31 U.S.C. 1352. Such disclosures shall be forwarded to the Authority. Contractor shall ensure that all of its subcontractors/subconsultants under this Contract shall certify the same. The Authority is responsible for keeping the certification of the Contractor, who is in turn responsible for keeping the certification forms of subcontractors/subconsultants.

The Bidder shall complete Standard Form SF-LLL, "Disclosure of Lobbying Activities," which is included with the Bid Documents, including instructions for completion.

H. ACCESS TO RECORDS AND REPORTS.

Contractor shall provide all authorized representatives of the Authority, the FTA Administrator, the State Auditor and the Comptroller General of the United States access to any books, documents, papers and records of the Contractor which are directly pertinent to this Contract for the purposes of making audits, copies, examinations, excerpts and transcriptions. Contractor also agrees to maintain all books, records, accounts and reports required under this Contract for a period of not less than three years after the date of termination or expiration of this Contract, except in the event of litigation

or settlement of claims arising from the performance of this Contract, in which case Contractor agrees to maintain the same until the Authority, the FTA Administrator, the Comptroller General, or any of their duly authorized representatives, have disposed of all such litigation, appeals, claims or exceptions related thereto.

I. FEDERAL CHANGES.

Contractor shall at all times comply with all applicable FTA regulations, policies, procedures and directives, including without limitation those listed directly or by reference in the Agreement (Form FTA MA (25) dated October 1, 2019) between the Authority and the FTA, as they may be amended or promulgated from time to time during the term of this Contract. Contractor's failure to so comply shall constitute a material breach of this Contract.

J. NO GOVERNMENT OBLIGATION TO THIRD PARTIES.

The Authority and Contractor acknowledge and agree that, notwithstanding any concurrence by the Federal Government in or approval of the solicitation or award of the underlying contract, absent the express written consent by the Federal Government, the Federal Government is not a party to this Contract and shall not be subject to any obligations or liabilities to the Authority, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

The Contractor agrees to include the above clause in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the clause shall not be modified, except to identify the subcontractor/subconsultant who will be subject to its provisions.

K. PROGRAM FRAUD AND FALSE OR FRAUDULENT STATEMENTS AND RELATED ACTS.

The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 et seq. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 CFR Part 31, apply to its actions pertaining to this Project. Upon execution of the underlying contract, the Contractor certifies or affirms the truthfulness and accuracy of any statement it has made, it makes, it may make, or causes to be made, pertaining to the underlying contract or the FTA assisted project for which this Contract work is being performed. In addition to other penalties that may be applicable, the Contractor further acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification, the Federal Government reserves the right to impose the penalties of the Program Fraud Civil Remedies Act of 1986 on the Contractor to the extent the Federal Government deems appropriate.

The Contractor also acknowledges that if it makes, or causes to be made, a false, fictitious, or fraudulent claim, statement, submission, or certification to the Federal Government under a contract connected with a project that is financed in whole or in part with Federal assistance originally awarded by FTA under the authority of 49 U.S.C. § 5307, the Government reserves the right to impose the penalties of 18 U.S.C. § 1001 and 49 U.S.C. § 5307 on the Contractor, to the extent the Federal Government deems appropriate.

The Contractor agrees to include the above two clauses in each subcontract financed in whole or in part with Federal assistance provided by FTA. It is further agreed that the

clauses shall not be modified, except to identify the subcontractor/subconsultant who will be subject to the provisions.

L. GOVERNMENT-WIDE DEBARMENT AND SUSPENSION.

This contract is a covered transaction for purposes of 2 CFR Parts 180. As such, the Contractor is required to verify that none of the Contractor, its principals, as defined at 2 CFR 180.995, or affiliates, as defined at 2 CFR 180.905, are excluded or disqualified as defined at 2 CFR 180.940 and 180.935.

The Contractor is required to comply with 2 CFR Part 180, Subpart C and must include the requirement to comply with 2 CFR Part 180, Subpart C in any lower tier covered transaction it enters into.

By signing and submitting its bid or proposal, Bidder certifies as follows:

The certification in this clause is a material representation of fact relied upon by the Authority. If it is later determined that the proposer knowingly rendered an erroneous certification, in addition to remedies available to the Authority, the Federal Government may pursue available remedies, including but not limited to suspension and/or debarment.

The bidder or proposer agrees to comply with the requirements of 2 CFR Part 180, Subpart C while this offer is valid and throughout the period of any contract that may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions.

M. CIVIL RIGHTS REQUIREMENTS.

The following requirements apply to the underlying contract:

1. Nondiscrimination - In accordance with Title VI of the Civil Rights Act, as amended, 42 U.S.C. § 2000d, section 303 of the Age Discrimination Act of 1975, as amended, 42 U.S.C. § 6102, section 202 of the Americans with Disabilities Act of 1990, 42 U.S.C. § 12132, and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees that it will not discriminate against any employee or applicant for employment because of race, color, creed, national origin, sex, age, or disability. In addition, the Contractor agrees to comply with applicable Federal implementing regulations and other implementing requirements FTA may issue.
2. Equal Employment Opportunity - The following equal employment opportunity requirements apply to the underlying contract:
 - (a) Race, Color, Creed, National Origin, Sex - In accordance with Title VII of the Civil Rights Act, as amended, 42 U.S.C. § 2000e, and Federal transit laws at 49 U.S.C. § 5332, the Contractor agrees to comply with all applicable equal employment opportunity requirements of U.S. Department of Labor (U.S. DOL) regulations, "Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor," 41 CFR Parts 60 et seq., (which implement Executive Order No. 11246, "Equal Employment Opportunity," as amended by Executive Order No. 11375, "Amending Executive Order 11246 Relating to Equal Employment Opportunity," 42 U.S.C. § 2000e note), and with any applicable Federal statutes, executive orders, regulations, and Federal policies that may in the future affect construction activities undertaken in the course of the Project. The Contractor agrees to take affirmative action to ensure that applicants are employed, and that employees are

treated during employment, without regard to their race, color, creed, national origin, sex, or age. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer, recruitment or recruitment advertising, layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

- (b) Age - In accordance with section 4 of the Age Discrimination in Employment Act of 1967, as amended, 29 U.S.C. § 623 and Federal transit law at 49 U.S.C. § 5332, the Contractor agrees to refrain from discrimination against present and prospective employees for reason of age. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
 - (c) Disabilities - In accordance with section 102 of the Americans with Disabilities Act, as amended, 42 U.S.C. § 12112, the Contractor agrees that it will comply with the requirements of U.S. Equal Employment Opportunity Commission, "Regulations to Implement the Equal Employment Provisions of the Americans with Disabilities Act," 29 CFR Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.
3. The Contractor also agrees to include these requirements in each subcontract financed in whole or in part with Federal assistance provided by FTA, modified only if necessary to identify the affected parties.

N. SAFE OPERATION OF MOTOR VEHICLES.

The Contractor is encouraged to adopt and promote on-the-job seat belt use policies and programs for its employees and other personnel that operate company-owned vehicles, company-rented vehicles, or personally operated vehicles. The terms "company-owned" and "company-leased" refer to vehicles owned or leased either by the Contractor or the Authority. The Contractor agrees to adopt and enforce workplace safety policies to decrease crashes caused by distracted drivers, including policies to ban text messaging while using an electronic device supplied by an employer, and driving a vehicle the driver owns or rents, a vehicle Contractor owns, leases, or rents, or a privately-owned vehicle when on official business in connection with the work performed under this agreement.

O. DAVIS-BACON ACT REQUIREMENTS.

A. Minimum wages

- 1. All laborers and mechanics employed or working upon the site of any qualifying construction work under the Contract (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3)), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics.

Contributions made or costs reasonably anticipated for bona fide fringe benefits under section I (b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of Subsection (A)(4) of this Section; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period are deemed to be constructively made or incurred during such weekly period. Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein, provided that the employer's payroll records accurately set forth the time spent in each classification in which such work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (A)(4) of this section) and the Davis-Bacon poster (WH- 1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

2. Whenever the minimum wage rate prescribed in the Contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

3. If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

4. (a) The contracting officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the Contract shall be classified in conformance with the wage determination. The contracting officer shall approve an additional classification and wage rate and fringe benefits therefor only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is utilized in the area by the construction industry;
and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by the contracting officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, Washington, DC 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(c) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer shall refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination with 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to Subsections (A)(4)(b) or (c) of this Section, shall be paid to all workers performing work in the classification under this Contract from the first day on which work is performed in the classification.

B. Withholding

The Authority shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the Contractor under this Contract or any other Federal contract with the Contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements which is held by the Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the Contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the Contract, the Authority may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

C. Payrolls and basic records

1. Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

2. (a) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Authority for transmission to the Federal Transit Administration. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR 5.5(a)(3)(i), except that full social security numbers and home addresses shall not be included on weekly transmittals. Instead the payrolls shall only need to include an individually identifying number for each employee (e.g., the last four digits of the employee's social security number). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division Web site at <http://www.dol.gov/esa/whd/forms/wh347instr.htm> or its successor site. The Contractor is responsible for the submission of copies of payrolls by all subcontractors. Contractors and subcontractors shall maintain the full social security number and current address of each covered worker, and shall provide them upon request to the Authority if the agency is a party to the contract, but the agency is not such a party, the contractor will submit them to the applicant, sponsor, or owner, as the case may be, for transmission to the (write in name of agency), the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or audit of compliance with prevailing wage requirements. It is not a violation of this section for a prime contractor to require a subcontractor to provide addresses and social security numbers to the prime contractor for its own records, without weekly submission to the sponsoring government agency (or the applicant, sponsor, or owner).

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the Contract and shall certify the following:

(i) That the payroll for the payroll period contains the information to be provided under §5.5(a)(3)(ii) of Regulations, 29 CFR Part 5, the appropriate information is being maintained under §5.5(a)(3)(i) of Regulations, 29 CFR Part 5, and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the Contract during the payroll period has been paid the full weekly wages earned, without rebate either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in Regulations, 29 CFR Part 3;

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the Contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph (C)(2)(b) of this Section.

(d) The falsification of any of the above certifications may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

3. The Contractor or subcontractor shall make the records required under paragraph (3)(i) of this Section available for inspection, copying, or transcription by authorized representatives of the Federal Transit Administration or the Department of Labor, and shall permit such representatives to interview employees during working hours

on the job. If the Contractor or subcontractor fails to submit the required records or to make them available, the Federal agency may, after written notice to the Contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

D. Apprentices and trainees

1. Apprentices - Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where Contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journey hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator of the Wage and Hour Division of the U.S. Department of Labor determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

2. Trainees - Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and

Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

3. Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

E. Compliance with Copeland Act requirements

The Contractor shall comply with the requirements of 29 CFR Part 3, which are incorporated by reference in this Contract.

F. Subcontracts

The Contractor or subcontractor shall insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as the Federal Transit Administration may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Contractor shall be responsible for the compliance by any subcontractor or lower subcontractor with all the contract clauses in 29 CFR 5.5.

G. Contract termination: Debarment

A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the Contract and for debarment as a Contractor and a subcontractor as provided in 29 CFR 5.12.

H. Compliance with Davis-Bacon and Related Act requirements

All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this Contract.

I. Disputes Concerning Labor Standards

Disputes arising out of the labor standards provisions of this Contract shall not be subject to the general disputes clause of this Contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

J. Certification of eligibility

1. By entering into this Contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm

ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

2. No part of this Contract shall be subcontracted to person or firm ineligible for an award of a government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

3. The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

P. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT.

A. Overtime Requirements – Neither the Contractor nor its subcontractors may permit any laborer or mechanic in any workweek in which he or she is employed on such work under this Contract to work in excess of forty (40) hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek.

B. Violation, Liability for Unpaid Wages, Liquidated Damages – In the event of any violation of the clause set forth in paragraph A of this Section, the Contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. In addition, Contractor and subcontractor shall be liable to the United States for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in paragraph A of this Section in the sum of \$25.0010.00 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty (40) hours without payment of the overtime wages required by the clause set forth in paragraph A of this Section.

C. Withholding for Unpaid Wages and Liquidated Damages – Authority shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from any moneys payable on account of work performed by Contractor under any such contract or any other Federal contract with Contractor or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by Contractor, such sums as may be determined to be necessary to satisfy any liabilities of Contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph B of this Section.

D. Subcontracts – The Contractor shall insert in any subcontract the clauses set forth in this Section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in this Section.

E. Payrolls and Basic Records – Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of three (3) years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5(a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section

1(b)(2)(B) of the Davis-Bacon Act, the Contractor shall maintain records that show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and shall also maintain records that show the costs anticipated or the actual cost incurred in providing such benefits. Should the Contractor employ apprentices or trainees under approved programs, it shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

F. Occupational Safety and Health Act – The Contractor agrees to comply with Section 107 of the Contract Work Hours and Safety Standards Act, 40 U.S.C. Section 333, and applicable DOL regulations, “Safety and Health Regulations for Construction”, 29 CFR Part 1926. Among other things, the Contractor agrees that it will not require any laborer or mechanic to work in unsanitary, hazardous, or dangerous surroundings or working conditions.

G. The Contractor also agrees to include the requirements of this Subsection F in each subcontract. The term “subcontract” under this Subsection is considered to refer to a person who agrees to perform any part of the labor or material requirements of a contract for construction, alteration or repair. A person who undertakes to perform a portion of a contract involving the furnishing of supplies or materials will be considered a “subcontractor” under this Section if the work in question involves the performance of construction work and is to be performed: (1) directly on or near the construction site, or (2) by the employer for the specific project on a customized basis. Thus, a supplier of materials that will become an integral part of the construction is a “subcontractor” if the supplier fabricates or assembles the goods or materials in question specifically for the construction project and the work involved may be said to be construction activity. If the goods or materials in question are ordinarily sold to other customers from regular inventory, the supplier is not a “subcontractor.” The requirements of this Section do not apply to contracts or subcontracts for the purchase of supplies or materials or articles normally available on the open market.

Q. INCORPORATION OF FEDERAL TRANSIT ADMINISTRATION (FTA) TERMS.

The preceding provisions include, in part, certain Standard Terms and Conditions required by U.S. DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by the U.S. DOT, as set forth in FTA Circular 4220.1F, dated November 1, 2008 as may be amended, are hereby incorporated by reference. Anything to the contrary herein notwithstanding, all FTA mandated terms shall be deemed to control in the event of a conflict with other provisions contained in this Contract. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any the Authority requests which would cause the Authority to be in violation of the FTA terms and conditions.

42. UNFORSEEN CONDITIONS

As required by California Public Contract Code, Section 7104:

- A. The Contractor shall promptly, and before the following conditions are disturbed, notify the Authority, in writing, of any:
1. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of the existing law.

2. Subsurface or latent physical conditions at the site differing from those indicated.
 3. Unknown physical conditions as the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the nature of the work, provided for in the Contract.
- B. The Authority shall promptly investigate the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work shall issue a work modification order under the procedures described in the Contract.
- C. In the event that a dispute arises between the Authority and the Contractor whether the conditions materially differ, or involve hazardous waste or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the work, the Contractor shall not be excused from any scheduled completion date provided for by the Contract, but shall proceed with all work to be performed under the Contract. The Contractor shall retain any and all rights provided either by Contract or by law which pertain to the resolution of disputes and protests between the contracting parties.

43. ANTI-TRUST CLAIM ASSIGNMENT

The Bidder is required to comply with Public Contract Code Section 7103.5(b), which addresses assignment of antitrust actions.

44. BID PACKAGE

Required documents that must be submitted at the time of the bid opening are:

- A. Bid Forms and Acknowledgment of Terms and Conditions, pages B-1 B-2 & B-3 (Special Provision 9 & 10)
- B. Bidder's Bond, page B-5; or Irrevocable Standby Letter of Credit, sample page B-7; or Certified Cashiers Check, (General Condition 8, Special Provision 12)
- C. List of References, pages B-9 & B-10 (Special Provision 4)
- D. Non-Collusion Declaration, page B-11 (Special Provision 32)
- E. Disqualification Questionnaire, page B-12 (Special Provision 30)
- F. DBE Questionnaire, page B-15 & B-16 (Special Provision 22)
- G. Designation of Subcontractors and Sub-Bidders, page B-17 & B-18 (Special Provision 21)
- H. Lobbying Certification For Contracts Grants, Loans And Cooperative Agreements, pages B-19,B-20, & B-21. Instructions on page B-21 (Special Provision 41)
- I. Buy America Certification, page B-23 (Special Provision 41)

Required documents that must be completed by the successful bidder are listed below:

- A. Agreement
- B. Performance Bond (Special Provision 15)
- C. Payment Bond (Special Provision 15)
- D. Certificate of Insurance (Special Provision 16)

Samples of the Agreement, Certificate of Insurance and Payment Bond and Performance Bond are attached hereto.

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**LIVERMORE-AMADOR VALLEY TRANSIT AUTHORITY (LAVTA)
TSP UPGRADE AND EXPANSION SYSTEM IMPROVEMENTS
CONTRACT NO. 2019-04**

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DIVISION 1 – GENERAL REQUIREMENTS

SECTION 01100

SUMMARY

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Contract description.
- B. Definitions.
- C. Work by Owner.
- D. Contractor's use of site and premises.
- E. Future work.
- F. Work sequence.

1.2 CONTRACT DESCRIPTION

LAVTA intends to upgrade the existing Transit Signal Priority (TSP) system that is currently operating under the Rapid Bus Transit service in the Cities of Dublin, Pleasanton and Livermore, California. The objective of this deployment is to provide the infrastructure and components necessary to implement an upgrade to the existing TSP system.

The LAVTA Route TSP Upgrade and Expansion consists of installing and upgrading existing equipment to implement a Transit Signal Priority System (TSP) and Queue Jump (QJ) for transit vehicles along the project intersections. The objectives of the TSP and QJ system are to minimize delays for the Rapid Bus Vehicles and maintain a consistent headway between the vehicles.

The TSP and QJ systems will provide the following functionality:

1. The TSP shall work with the existing or new Opticom Emergency Vehicle Pre-emption System Low Priority channels installed on traffic signal standards.
2. The TSP shall request priority based on a user defined schedule adherence basis. The TSP system shall request priority if the bus is behind a user defined schedule to provide priority for the Rapid buses based on direction, vehicle and route/pattern.
3. The headway parameter can be set, by day of week and time of day.
4. The QJ system shall activate an early green phase by providing a right-overlap, exclusive phase, to allow queue clearance and a transit phase. The overlap phase shall be sufficient duration to clear the rights pocket. The Overlap Phase shall be user settable. The phase duration for all subsequent phases after the QJ phase shall be reduced equally after the call.
5. The TSP/QJ shall meet all applicable California MUTCD requirements.

6. The TSP/QJ system shall maintain a log of all TSP requests and activations, including amount of early green or extension of green periods, and transmit the information on a daily basis from the central signal control system to LAVTA office via an ftp file to LAVTA.

This equipment consists of intersection equipment that recognizes vehicle ID information emitted from applicable buses, determines whether to grant a transit signal priority (TSP) or bus queue-jump (QJ) early-green or green extension based on pre-determined parameters (e.g., vehicle access privileges, time since previous controller action) and acts accordingly. All requests and controller responses are recorded by the local agency signal system server and daily reports are emailed to LAVTA by each agency for system monitoring.

The following work for providing the above system shall conform to the provisions in Section 86, "Signals, Lighting and Electrical Systems," of the State Standard Specifications and these special provisions:

- Installation of agency-furnished TSP equipment
- Installation of agency-furnished TSP cables and connectors
- Installation of agency-furnished TSP phase selectors
- Installation of agency-furnished TSP auxiliary panels
- Installation of agency-furnished TSP card racks
- Upgrading and installation of local traffic controller license key to accommodate TSP operations.
- Testing (TSP and QJ intersection operations)

Unless shown otherwise, locations of cabinets, standards, foundations, lighting fixtures, conduits, pull boxes, appurtenances and other similar electrical equipment are approximate and may be changed to suit field conditions or as directed by the ODR. Portions of the work are within the right-of-way of the following jurisdictions:

- City of Dublin
- City of Livermore
- City of Pleasanton

The Contractor shall need to coordinate and comply with requirements of these jurisdictions, including, but not limited to, hours of work and traffic control.

1.3 DEFINITIONS

- A. Architect/Engineer of Record: Kimley-Horn and Associates, Inc. Team, design professional under contract to the Owner.

1.4 CONTRACTOR'S USE OF SITE AND PREMISES

- A. Access to Contractor's Staging Area: Limited to the existing driveways.
- B. Work Hour Restrictions: Work shall be restricted to between the hours of 9:00 am to 3:30 pm each day, Monday through Friday. Work shall not be allowed on Saturday or Sunday unless approved in advance by the ODR. Upon approval from the Cities, work hours may be extended to between the hours of 7:00 am to 5:00 pm each day, Monday through Friday, as long as traffic flow is not impacted. Contractor shall submit requests for extending the working hours to the ODR in writing for approval. Contractor shall refer to

Lane Closure Requirements provided in Section 01570, "Traffic Control System" of these Special Provisions for restrictions on closing travel lanes.

1.5 FUTURE WORK

- A. The Contractor shall be aware that other projects may be under construction in the project area during the construction of the Work. The Contractor shall be responsible for coordinating construction activities with other work, as necessary, and no delay or additional compensation will be allowed. The Contractor shall determine the nature and general timeframe for construction of other projects that may be under construction by the local agencies during the pre-construction meeting and include provisions in the CPM schedule as necessary as determined by the ODR. Other projects that may be under construction, include, but are not necessarily limited, to the following:

1.6 WORK SEQUENCE

- A. Order of work shall conform to the provisions in Section 5-1.05, "Order of Work" of the Standard Specifications. Attention is directed to Section 1570, "Traffic Control System" of Division 1; and Section 8-1.10, "Utility and Non-Highway Facilities" and Section 86-1.03, "Cost Breakdown" of the State Standard Specifications.
- B. The first order of work shall include coordination with LAVTA on the furnishing of the field equipment to be installed under this contract.
- C. The second order of work shall include coordination with local agency traffic signal control system vendor and Caltrans to arrange for controller license key upgrades to arrange for the upgrade submittals for review by the ODR. The Contractor shall not order the upgrades until the ODR has received and approved the Submittals. The final order of work will be determined at the pre-construction conference. Contractor shall coordinate and complete work as identified in the CPM schedule as submitted to the ODR and with the required submittals as indicated in Section 01323, "Network Analysis Schedules" of these Special Provisions.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

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SECTION 01200

PRICE AND PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Schedule of values.
- B. Applications for payment.
- C. Defect assessment.

1.2 RELATED SECTIONS

- A. Section 01330 - Submittal Procedures.

1.3 SCHEDULE OF VALUES

- A. Submit Schedule of Values in duplicate within 15 days after date of Owner-Contractor Agreement.
- B. Obtain the ODR's approval of the Schedule of Values before any partial payment for lump sum items will be made.
- C. Format: Identify each line item with number and title of bid item along with an additional sub-number or letter and description.
- D. Breakdown each bid item into unit descriptions of work with quantity, unit price, and subtotal. Determine quantities required to complete the work indicated on the Contract Drawings. Contractor shall be responsible for accuracy of quantities and subtotals submitted for approval on the Schedule of Values.
- E. No adjustment in compensation will be made in the Contract lump sum prices paid due to any difference between the quantities shown in the Schedule of Values furnished by the Contractor and the quantities required to complete the Work.
- F. The sum of the amounts (subtotals) of the units of work listed for each lump sum item shall be equal the Contract lump sum price bid for the work. Include a direct proportional amount of Contractor's overhead, profit, and all other expenses in each individual unit listed in the Schedule of Values.
- G. Approved Schedule of values will be used to determine partial payments during the progress of the Work.
- H. Identify bonds and insurance.
- I. Include in each line item, the amount of Allowances, if any, specified in this section. For unit cost Allowances, identify quantities taken from Contract Documents multiplied by the unit cost to achieve the total for the item.
- J. Revise schedule to list approved Change Orders, with each Application For Payment.

1.4 STORED MATERIAL

- A. Invoice for Stored Materials: Partial payments for Contractor-furnished materials not yet installed will be made only after such materials have been furnished and stored for use in the Work, provided they are stored in an area approved by the ODR. All such material shall be covered by insurance. Said invoice may include the amount and value of such acceptable material as has been furnished and delivered to the site, and such acceptable material as has been furnished and stored for use in the Work, provided it is stored within the San Francisco Bay Area and is segregated and designated for exclusive use of the Owner.
- B. Invoices from suppliers shall be furnished to substantiate the cost.

1.5 APPLICATIONS FOR PAYMENT

- A. Submit each application on the form provided by the ODR.
- B. Content and Format: Utilize Schedule of Values for listing items in Application for Payment.
- C. Payment Period: Submit application for payment monthly prior to the tenth day of the subsequent month.
- D. Submit with transmittal letter in a form acceptable to the ODR.
- E. Substantiating Data: Submit substantiating information, as required by the ODR, including the following with the application:
 - 1. Current construction photographs specified in Section 01330.
 - 2. Conditional release of liens from major subcontractors and vendors.
 - 3. Submit certification signed by the Contractor and verified by the ODR that Record Documents, as specified in Section 01700, are being kept current with construction activities.
 - 4. Affidavits and invoices attesting to off-site stored products.
 - 5. Construction progress schedules, revised and current as specified in Section 01300, Administrative Requirements.
 - 6. Certified payroll records to support compliance with Prevailing Wages requirements.
 - 7. Copies of the following logs: Requests for Information; Quality and Non-Conformances; submittals and shop drawings and Change Orders.
 - 8. Copies of subcontractor and vendor invoices.
 - 9. Copies of safety briefing notes and inspections.
- F. No Progress Payments will be allowed for the following Bid Items until satisfactory completion of the work as approved by the ODR:

1. TSP/QJ Equipment Installation
2. Field Equipment Testing
3. Final System Integration and Testing

1.6 DEFECT ASSESSMENT

- A. Replace the Work, or portions of the Work, not conforming to specified requirements.
- B. If, in the opinion of the ODR, it is not practical to remove and replace the work, the ODR will direct an appropriate remedy or adjust payment.
- C. If the ODR determines that the defective work may remain or if, the ODR allows defective work to remain and requires that the defective Work be partially repaired, the Contract Price will be adjusted to a new sum at the discretion of the Owner.
- D. The individual specification sections may modify these options or may identify a specific formula or percentage sum reduction.
- E. The authority of the Owner to assess the defect and identify payment adjustment is final.
- F. Non-Payment For Rejected Products: Payment will not be made for rejected products for any of the following. Products are used in this paragraph include materials, products, and completed items of work.
 1. Products wasted or disposed of in a manner that is not acceptable.
 2. Products determined as unacceptable before or after placement.
 3. Products not completely unloaded from the transporting vehicle.
 4. Products placed beyond the lines and levels of the required Work.
 5. Products remaining on hand after completion of the Work.
 6. Loading, hauling, and disposing of rejected products.
 7. Work installed and not passing inspections.
 8. Products with incomplete certifications (for which certifications are specified or otherwise required).

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

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SECTION 01300

ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Submittals
- B. Coordination and project conditions.
- C. Preconstruction meeting.
- D. Progress meetings.
- E. Preinstallation meetings.
- F. Equipment electrical characteristics and components.
- G. Construction progress documentation.

1.2 SUBMITTALS

- A. Submit City of Livermore, City of Dublin and City of Pleasanton Encroachment Permit Applications and required Traffic Control and Pedestrian Access Plans within ten (10) working days of the Notice to Proceed.
- B. Submit Field Equipment Test Plan including procedures and tests for a successful installation of Contractor installed equipment and materials (agency furnished) within ten (10) working days prior to installation of any field equipment.
- C. Submit progress photographs (electronic and hard copies) with application for payment.

1.3 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of the various sections of the specifications to ensure efficient and orderly sequence of installation of interdependent construction elements, with provisions for accommodating items installed later.
- B. Verify utility requirements and characteristics of operating equipment are compatible. Coordinate work of various sections having interdependent responsibilities for installing, connecting to, and placing in service, such equipment.
- C. Coordinate space requirements, supports, and installation of work that are indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit, as closely as practicable; place runs parallel with property lines.
- D. Coordinate completion and clean-up of work of separate Sections in preparation for Substantial Completion.
- E. After Owner occupancy of premises, coordinate access to site for correction of defective Work and Work not in accordance with Contract Documents, to minimize disruption of Owner's activities.

- F. Coordinate activities included in various Sections to assure efficient and orderly installation of each component. Coordinate operations included under different Sections that are dependent on each other for proper installation and operation.

1.4 PRECONSTRUCTION MEETING

- A. The ODR will schedule a meeting after Notice of Award, and after execution Owner-Contractor Agreement, and submission of executed bonds and insurance certificate.
- B. Attendance Required: ODR, Architect/Engineer of Records, and Contractor.
- C. Preconstruction Requirements:
 - 1. Introduce parties, roles, and responsibilities and review communications protocols.
 - 2. Distribution of Contract Documents.
 - 3. Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
 - 4. Designation of personnel representing the parties in Contract and the ODR.
 - 5. Procedures and processing of field decisions, submittals, substitutions, applications for payments, proposal request, Change Orders, and Contract closeout procedures.
 - 6. Submittal and approval of Baseline Schedule.
 - 7. Scheduling activities of Owner-hired testing laboratory.
 - 8. Environmental requirements and procedures (if any)
- D. ODR will prepare meeting report and distribute copies within five days after meeting to participants. Contractor shall distribute copies to Contractor's team members affected by decisions made.
- E. ODR will issue Notice to Proceed.
- F. Contractor shall not mobilize on site until satisfying the Preconstruction Requirements listed above.

1.5 PROGRESS MEETINGS

- A. Attend progress meetings throughout progress of the Work at minimum weekly intervals or as required by the ODR.
- B. Attendance Required: Job superintendent, major subcontractors and suppliers, as appropriate to agenda topics for each meeting.
- C. Agenda:
 - 1. Review minutes of previous meetings.

2. Review of Work progress.
 3. Field observations, problems, and decisions.
 4. Identification of problems which impede planned progress.
 5. Review of Request for Information Log and Non-conformance Log.
 6. Review of submittals schedule and status of submittals.
 7. Review of off-site fabrication and delivery schedules.
 8. Review of Change Order Log and proposed changes
 9. Review of baseline progress schedule.
 10. Corrective measures to regain projected schedule.
 11. Planned progress during succeeding work period.
 12. Coordination of projected progress.
 13. Review environmental requirements and procedures. Review status of Solid Waste Management.
 14. Other business relating to Work.
- D. ODR will prepare meeting report and distribute copies within five days after meeting to participants. Contractor shall distribute copies to Contractor's team members affected by decisions made.

1.6 PREINSTALLATION MEETING

- A. When required in individual specification sections, convene a preinstallation meeting at the site prior to commencing work of the section.
- B. Require attendance of parties directly affecting, or affected by, Work of the specific section.
- C. Notify ODR four days in advance of meeting date.
- D. Prepare agenda and preside at meeting:
 1. Review conditions of installation, preparation and installation procedures.
 2. Review coordination with related work.
- E. Record minutes and distribute copies within five days after meeting to participants, with two copies to ODR, Owner, participants, and those affected by decisions made.

1.7 CONSTRUCTION PROGRESS DOCUMENTATION

A. Progress Photographs:

1. Photographically document site conditions prior to start of construction operations.
2. Take weekly photographs throughout entire project. Photographs shall be provided for unrestricted use by Owner. Indicate photographs demonstrating environmental procedures.
3. Submit minimum 20 photographs on CD and 5 by 7 inch hard copies with each application for payment. Organize photographs by date and description. Format CD to be compatible with Owner's computer software.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01323

NETWORK ANALYSIS SCHEDULES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. References.
- B. Quality assurance.
- C. Format.
- D. Schedules.
- E. Submittals.
- F. Review and evaluation.
- G. Updating schedules.
- H. Distribution.

1.2 RELATED SECTIONS

- A. Section 01100 - Summary.
- B. Section 01300 - Administrative Requirements.
- C. Section 01330 - Submittal Procedures.

1.3 REFERENCES

- A. The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry, Washington, D.C., The Associated General Contractors of America (AGC).

1.4 CONTRACTOR'S SCHEDULING PERSONNEL AND THEIR QUALIFICATIONS

- A. Schedule shall be prepared and maintained by Contractor personnel specializing in CPM scheduling.
- B. Scheduler: Contractor's personnel specializing in CPM scheduling shall possess a two years minimum experience in scheduling construction work of a complexity comparable to this Project, and having use of computer facilities capable of delivering a detailed graphic printout within 48 hours of request.
- C. Contractor's Administrative Personnel assisting in CPM scheduling shall possess two years minimum experience in using and monitoring CPM schedules on comparable projects.

1.5 FORMAT

- A. Listings: Reading from left to right, in ascending order for each activity. Identify each activity with the applicable specification section number.
- B. Diagram Sheet Size: 24 inches high by 36 inches wide.
- C. Scale and Spacing: To allow for notations and revisions.
- D. In Microsoft Project Bar chart Format.

1.6 SCHEDULES

- A. Prepare network analysis diagrams and supporting mathematical analyses using the Critical Path Method, under concepts and methods outlined in AGC's "The Use of CPM in Construction - A Manual for General Contractors and the Construction Industry".
- B. Include sufficient level of detail to identify the critical path, major milestones and inspection hold points.
- C. Illustrate order and interdependence of activities and sequence of work; how start of a given activity depends on completion of preceding activities, and how completion of the activity may restrain start of subsequent activities.
- D. Illustrate complete sequence of construction by activity, identifying work of separate stages. Provide dates for submittals including those for Owner furnished items and return of submittals; dates for procurement and delivery of critical products; and dates for installation and provision for testing. Provide legend for symbols and abbreviations used.
- E. Mathematical Analysis: Tabulate each activity of detailed network diagrams, using calendar dates, and identify for each activity:
 - 1. Preceding and following event numbers.
 - 2. Activity description.
 - 3. Estimated duration of activity, in maximum 15 day intervals.
 - 4. Earliest start date.
 - 5. Earliest finish date.
 - 6. Actual start date.
 - 7. Actual finish date.
 - 8. Latest start date.
 - 9. Latest finish date.
 - 10. Total and free float; float time shall accrue to the Owner and to the Owner's benefit.

11. Monetary value of activity, keyed to Schedule of Values.
 12. Percentage of activity completed.
 13. Responsibility.
- F. Analysis Program: Capable of compiling monetary value of completed and partially completed activities, of accepting revised completion dates, and recomputation of all dates and float.
- G. Required Sorts: List activities in sorts or groups:
1. By preceding work item or event number from lowest to highest.
 2. By amount of float, then in order of early start.
 3. By responsibility in order of earliest possible start date.
 4. In order of latest allowable start dates.
 5. In order of latest allowable finish dates.
 6. Contractor's periodic payment request sorted by Schedule of Values listings.
 7. Listing of basic input data which generates the report.
 8. Listing of activities on the critical path.
- H. Provide sub-schedules for each stage of Work identified in Section 01100.
- I. Coordinate contents with schedule of values in Section 01330.

1.7 SUBMITTALS

- A. Within 10 days after date established in Notice to Proceed, submit proposed preliminary network diagram defining planned operations for the first 60 days of Work, with a general outline for remainder of Work.
- B. Participate in review of preliminary and complete network diagrams jointly with ODR.
- C. Within 20 days after joint review of proposed preliminary network diagram, submit draft of proposed complete network diagram (draft Baseline Schedule) for review. Include written certification that major Subcontractors have reviewed and accepted proposed schedule.
- D. Within 10 days after joint review, submit complete network analysis consisting of network diagrams and mathematical analysis (Baseline Schedule).
- E. Submit with submittal of draft Baseline Schedule, Baseline Schedule, and with each submittal of Updated Schedule, a Narrative Report.
- F. Submit updated network schedules (Update Schedule) and narrative with each Application for Payment.

- G. Submit the number of opaque reproductions the Contractor requires, plus two copies that will be retained by ODR.
- H. Submit schedule as Microsoft Word file on CD.
- I. Submit under transmittal letter form specified in Section 01330.
- J. Submit a 3-week daily activity schedule each week on Mondays outlining the daily site activities by each trade for the upcoming three weeks.

1.8 REVIEW AND EVALUATION

- A. Participate in joint review and evaluation of network diagrams and analysis with ODR at each submittal.
- B. Evaluate project status to determine work behind schedule and work ahead of schedule.
- C. After review, revise as necessary as result of review, and resubmit within 10 days.

1.9 UPDATING SCHEDULES

- A. Maintain schedules to record actual start and finish dates of completed activities.
- B. Indicate progress of each activity to date of revision, with projected completion date of each activity. Update diagrams to graphically depict current status of Work.
- C. Identify activities modified since previous submittal, major changes in Work, and other identifiable changes.
- D. Indicate changes required to maintain Completion Time.
- E. Submit sorts required to support recommended changes.

1.10 NARRATIVE REPORT

- A. Initial Narrative Reports: Provide narrative report defining critical path, key milestones, and critical activities.
- B. Update Schedule Narrative Reports: Provide narrative report to explain changes to the critical path, key milestones, and critical activities. Report shall also define problem areas, anticipated delays, and their impact on the schedule. Report corrective action taken or proposed and its effect including the effects of changes on schedules of separate contractors.

1.11 DISTRIBUTION

- A. Following joint review, distribute copies of updated schedules to Contractor's project site file, to Subcontractors, suppliers, ODR, Owner, and other concerned parties.
- B. Instruct recipients to promptly report, in writing, problems anticipated by projections shown in schedules.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

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SECTION 01330
SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Progress schedules.
- C. Submittal schedule.
- D. Proposed products list.
- E. Product data.
- F. Shop drawings.
- G. Samples.
- H. Design data.
- I. Test reports.
- J. Certificates.
- K. Manufacturer's instructions.
- L. Manufacturer's field reports.

1.2 RELATED SECTIONS

- A. Section 01700 - Execution and Closeout Requirements.

1.3 SUBMITTAL PROCEDURES

- A. Make submittals to the ODR. Submittals of product data, shop drawings, and samples are for approval unless otherwise noted; submittal of manufacturer's instructions, qualifications, certifications, and test reports are for the ODR's information unless otherwise noted.
- B. Coordination: Coordinate preparation and processing of submittals with performance of construction activities. Transmit all submittals within 20 working days of the Notice to Proceed and sufficiently in advance of performance of related construction activities to avoid delay.
 - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, or other submittals and related activities that require sequential activity.

2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
 - a. The ODR reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.
- C. Transmit each submittal with form included at the end of this Section.
- D. Number the transmittal form in the following format: XXXXX-#A, as follows:
 1. XXXXX: Five or six-digit number reflecting section to which submittal belongs.
 2. #: Numerical sequence number for submittals received in that section. Begin serial order with # 01.
 3. A: Revise submittals with original number and a sequential alphabetic suffix for how many times this submittal has been resubmitted, with "A" indicating the first resubmittal.
 4. Assign individual number to each submittal. Do not combine several items from one trade or subcontractor into one submittal without prior approval of ODR.
- E. Identify Project, Contractor, subcontractor, supplier; manufacturer; pertinent drawing number, detail references, and specification section number, as appropriate.
- F. Apply Contractor's stamp, signed or initialed certifying that review, approval, verification of products required, field dimensions, work of other trades, adjacent construction Work, and coordination of information is in accordance with the requirements of the Work and Contract Documents. Submittals without Contractor's stamp will be returned without action.
- G. Schedule submittals to expedite the Project, and deliver to address indicated in the Preconstruction Meeting. Coordinate submission of related items.
- H. For each submittal for review, allow 15 days for initial review excluding delivery time to and from Contractor. Allow additional time if processing must be delayed to permit coordination with subsequent submittals.
- I. Identify variations and deviations from Contract Documents and identify product or system limitations which may be detrimental to successful performance of the completed Work.
- J. Provide space for Contractor and ODR review stamps.
- K. When revised for resubmission, identify all changes made since previous submission.
- L. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report any inability to comply with requirements.
- M. Submittals not requested will not be recognized or processed. Duplication of Contract Documents or portions of Contract Documents for purpose of submittals will not be recognized or processed.

- N. Where a submittal involves engineering computations or original design work is depicted, show the name, the California state registration number, seal, and signature of the Professional Engineer hired by the Contractor certifying that such computations or design work are correct and in conformance with standards, codes, and acceptable engineering practice.

1.4 SUBMITTAL REVIEW

- A. Submittals will be reviewed for conformance with requirements of the Contract Documents. Review of a separate item will not constitute review of an assembly in which the item functions. Review will not relieve the Contractor from Contractor's responsibility for accuracy of submittals; for conformity of submittals to requirements of Contract Documents; for coordinating Work with that of other trades; for compatibility of described product with contiguous products and the rest of the system; for conforming and correlating quantities and dimensions; for selecting fabrication processes and techniques of construction; for performing Work in a safe and satisfactory manner; and for prosecution and completion of the Contract in accordance with the Contract Documents.
- B. It shall be understood that the provisions herein apply to ODR's review, A/E's review, Owner review, and review by other Owner representatives.
- C. Review is only for the limited purpose of checking for general conformance with the information given and the design concept expressed in the Contract Documents.
1. Review is not conducted for the purpose of determining the accuracy and completeness of details such as dimensions and quantities, or for substantiating instructions of installation or performance. Compliance with specified characteristics is the Contractor's responsibility. Submittals which do not include the Contractor's certification that the information complies with the Contract Documents will be returned without action.
 2. Review of submittals does not authorize variation from Contract Documents unless approval of proposed variation has been expressly requested and specifically noted as a variation on the submittal.
 3. Review is only for items to be furnished by the submitting supplier and does not constitute approval of any assemblage of which the submitted item is a component nor approval of construction sequence or method.
- D. The ODR will indicate its reviews of submittals and the action taken by means of its review stamp. The review stamp will be affixed by the ODR, the action block will be marked, and the stamp will be signed and dated. The review-stamp action-block marks will have the following meanings:
1. The mark FURNISH AS SUBMITTED – NO EXCEPTIONS TAKEN is an acceptance, and means that every illustration and description appears to conform to the respective requirements of the Contract Documents; that fabrication, assembly, manufacture, installation, application, and erection of the illustrated and described product may proceed; and that the submittal need not be resubmitted.
 2. The mark FURNISH AS CORRECTED - RESUBMISSION NOT REQUIRED is an acceptance, and means that every illustration and description appears to conform to the respective requirements of the Contract Documents upon

incorporation of the reviewer's corrections, and that fabrication, assembly, manufacture, installation, application, and erection of the illustrated and described product may proceed. Submittals so marked need not be resubmitted unless the Contractor challenges the reviewer's exception.

3. The mark REVISE AND RESUBMIT - RESUBMISSION REQUIRED WITHIN ____ DAYS is an acceptance, and means that every illustration and description appears to conform to the respective requirements of the Contract Documents, and that fabrication, assembly, manufacture, installation, application, and erection of the illustrated and described product may proceed after incorporation of the reviewer's corrections and verification by the ODR that the reviewer's corrections have been properly incorporated in the submittal. Resubmission within the time period specified is also required if the Contractor challenges the reviewer's corrections.
4. The mark SUBMIT SPECIFIED ITEM or REJECTED is a disapproval, and means that the submittal does not comply with Contract Documents or is deficient to the degree that the reviewer cannot correct the submittal with a reasonable degree of effort, has not made a thorough review of the submittal, and that the submittal needs revision and is to be corrected and resubmitted. Do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Contractor shall make a new submittal. Submittals stamped SUBMIT SPECIFIED ITEM or REJECTED are not to be used and not permitted on the job site.

1.5 PROGRESS SCHEDULE

- A. Submit progress schedules in accordance with Section 01324, Network Analysis Schedules.
- B. Submit Update Schedule monthly with Narrative Report.

1.6 SUBMITTAL SCHEDULE

- A. In conjunction with the development of the Contractor's construction schedule, prepare a complete schedule of submittals.
 1. Coordinate submittal schedule with the list of subcontracts, and the list of products, as well as the Contractor's construction schedule.
 2. Prepare the schedule in chronological order. Provide the following information:
 - a. Scheduled date for the first submittal.
 - b. Related Section number.
 - c. Submittal category.
 - d. Name of subcontractor.
 - e. Description of the part of the Work covered.
 - f. Scheduled date for resubmittal.

- g. Scheduled date the ODR's final release or approval.
- B. Distribution: Following response to initial submittal, print and distribute copies to the ODR, subcontractors, and other parties required to comply with submittal dates indicated.
- C. Update submittal schedule, if necessary.

1.7 PRODUCT DATA

- A. Submit for review for the limited purpose of checking for conformance with information given and the design concept expressed in the contract documents. Provide copies and distribute in accordance with Article entitled "Submittal Procedures" herein and for record documents purposes described in Section 01700, Execution and Closeout Requirements.
- B. Submit the number of copies which Contractor requires, plus four copies which will be retained by ODR.
- C. Mark each copy to identify applicable products, models, options, and other data. Cross out provisions that are not applicable. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. When specified in individual specification sections, submit printed instructions (manufacturer's instructions or installation instructions) for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.
- F. After review distribute in accordance with the Submittal Procedures article above and provide copies for record documents described in Section 01700 – Execution and Closeout Requirements.

1.8 SHOP DRAWINGS

- A. Submit for review for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. Produce copies and distribute in accordance with Article entitled "Submittal Procedures" herein and for record documents purposes described in Section 01700.
- B. Submit the number of copies which Contractor requires, plus four copies which will be retained by ODR.
- C. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- D. Submit newly prepared information, drawn to accurate scale. Do not reproduce Contract Documents or copy standard information as the basis for shop drawings. Standard information prepared without specific reference to the Project is not considered shop drawings.
- E. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:

1. Shop drawings shall be drawn to scale sufficient for clarity and coordination, shall show necessary working and erection dimensions and necessary details, section, plans and elevations, shall be properly cross-referenced, as necessary, by specific reference to the appropriate Section, paragraphs and pages of the Specifications and Drawings to clearly delineate arrangement, construction and connection with other work and shall illustrate work contiguous to and having a bearing on work shown.
2. Identification of products and materials included.
3. Compliance with specified standards.
4. Notation of coordination requirements.
5. Notation of dimensions established by field measurement.
6. Highlight, encircle, or otherwise clearly indicate deviations from the Contract Documents.
7. Sheet Size: Except for templates, patterns and similar full-size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 30" x 42".
8. Initial Submittal: Unless otherwise indicated, submit opaque reproductions for the ODR's review; if one of the copies is submitted as a reproducible transparency, it will be one of the copies returned to the Contractor.
9. Do not use shop drawings without an appropriate final submittal review stamp indicating action taken in connection with construction.
10. Final Submittal: From the reproducible print returned with the initial or intermediate submittals, make prints for the Final Submittal. Mark the prints "Final Submittal". Produce copies and distribute in accordance with Article entitled "Submittal Procedures" herein and for record documents purposes described in Section 01700.

1.9 SAMPLES

- A. Submit for review for limited purpose of checking for conformance with information given and design concept expressed in Contract Documents. Produce duplicates and distribute in accordance with Article entitled "Submittal Procedures" herein and for record documents purposes described in Section 01700.
- B. Samples for Selection as Specified in Product Sections:
 1. Submit for aesthetic, color, or finish selection.
 2. For Color Selection: Submit samples of finishes from the full range of manufacturers' standard colors, textures, and patterns for ODR selection.
 3. For ODR Approval of Specified Color: Submit samples of finish in selected standard or custom color as specified for ODR review and approval.

4. After review, produce duplicates and distribute in accordance with Article entitled “Submittal Procedures” herein and for record documents purposes described in Section 01700.
- C. Submit samples to illustrate functional and aesthetic characteristics of product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- D. Include identification on each sample, with full Project information.
- E. Submit number of samples (no fewer than two) specified in individual specification sections; one of which will be retained by ODR.
- F. Reviewed samples which may be used in the Work are indicated in individual specification sections.
- G. Samples will not be used for testing purposes unless specifically stated in specification section.

1.10 DESIGN DATA

- A. Submit design data for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.

1.11 TEST REPORTS

- A. Submit test reports for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.

1.12 CERTIFICATES

- A. When specified in individual specification sections, submit certification by the manufacturer, installation/application subcontractor, or Contractor to ODR, in quantities specified for Product Data.
- B. Submit certificates for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.
- C. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- D. Certificates may be recent or previous test results on material or product, but must be acceptable to ODR.

1.13 MANUFACTURER’S INSTRUCTIONS

- A. When specified in individual specification sections, submit printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, to ODR for delivery to Owner in quantities specified for Product Data.
- B. Submit manufacturer’s instructions for information for the limited purpose of assessing conformance with information given and the design concept expressed in the Contract Documents.

- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.14 MANUFACTURER'S FIELD REPORTS

- A. Submit report in duplicate within 15 days of observation to ODR for information.
- B. Submit manufacturer's field reports for information for the limited purpose of assessing conformance with information given and the design concept expressed in Contract Documents.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SUBMITTAL REVIEW TRANSMITTAL

TO: Attn:	RECEIVED BY DISTRICT: (stamp here)	SUBMITTAL NO: (filled in by Contractor) PREVIOUS SUB. NO: (filled in by Contractor)
PROJECT NUMBER AND NAME:		
CONTRACTOR/SUPPLIER: (Name/address/phone & fax no.) DATE SENT: SIGNATURE:	REVIEWED BY: (CM or designee) DATE RETURNED: (assigned by construction admin dept after review)	ACTION: 1 For Information Only 2 Furnish as Submitted - No Exceptions Noted 3 Furnish as Corrected - Resubmission Not Required 4 Revise and Resubmit - Resubmission Required Within _____ Days 5 Submit Specified Item or Rejected

We are sending you these items via:

SPECIFICATION SECTION NUMBER AND TITLE:				
ITEM NO: (based on sub. schedule)	NO. OF COPIES:	DESCRIPTION:	ACTION: (assigned by CM)	IDENTIFICATION NO: (CM log no.)
REMARKS: Corrections and comments made on the shop drawings during this review do not relieve Contractor from compliance with requirements of the Drawings and Specifications. This check is only for review of general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. The Contractor is responsible for: conforming and correlating quantities and dimensions; selecting fabrication processes and techniques of construction; coordinating Work with that of other trades; and performing Work in a safe and satisfactory manner.				

Shaded areas reserved for ODR's use.

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SECTION 01400

QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Quality control and control of installation.
- B. Tolerances
- C. Testing and inspection services.
- D. Manufacturers' field services.

1.2 RELATED SECTIONS

- A. Section 01200 - Price and Payment Procedures.
- B. Section 01330 - Submittal Procedures.

1.3 REFERENCED STANDARDS

- A. Section 6, "Control of Materials" of the State Standard Specifications
- B. ASTM E329 Standard Specifications for Agencies Engaged in the Testing and/or Inspection of Materials used in Construction

1.4 QUALITY CONTROL AND CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality. Material and equipment to be incorporated into the Work shall be new and unused unless otherwise approved and shall bear the manufacturer's stamp or marking. In case a reference is not clear as to which of several grades is desired, the highest quality material shall be used.
- B. Where articles or materials are specified by brand or trade name, alternate materials or articles equal to those specified may be approved provided the request for approval is in writing accompanied by supporting data, in ample time as determined by the ODR to permit investigations without delaying the Work. Unless substitutions are approved, no deviation from the standards will be allowed. (See Section 00700, "General Conditions, Part 3.10.B and Section 01600, "Product Requirements", Part 1.8.)
- C. Comply with manufacturers' instructions, including each step in sequence.
- D. Should manufacturers' instructions conflict with Contract Documents, request clarification from ODR before proceeding.
- E. Comply with specified standards as minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.

- F. Perform Work by persons qualified to produce required and specified quality, under competent supervision and in a manner to the ODR’s complete satisfaction as specified in Section 5-1.06, “Superintendance,” and Section 5-1.12, “Character of Workers,” of the State Standard Specifications.
- G. Verify that field measurements are as indicated on Shop Drawings or as instructed by the manufacturer.
- H. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
- I. Make arrangements with permitting agencies and special inspections agency for required inspections and tests. Inform ODR at least 24 hours before event to allow witnessing of inspection or test.

1.5 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers’ tolerances. Should manufacturers’ tolerances conflict with Contract Documents, request clarification from ODR before proceeding.
- C. Adjust products to appropriate dimensions; position before securing products in place.

1.6 TESTING AND INSPECTION SERVICES – CONTRACTOR-HIRED TESTING AGENCY

- A. Contractor shall employ and pay for services of an independent testing agency or laboratory acceptable to the Owner to perform all testing and inspections including inspections and tests which are required as conditions for permits. All costs for testing shall be included in various items of work and no additional payment will be allowed therefore. Wherever testing is required, it shall be performed by Contractor-Hired Testing Agency unless specifically specified as performed by Owner-Hired Testing Agency.
 - 1. Prior to start of Work, submit testing laboratory name, address, and telephone number, and names agency contacts.
 - 2. Submit evidence that testing agency complies with the recommended requirements of ASTM E329. Testing agency shall be acceptable to Owner and permitting agency.
- B. The independent firm shall perform tests, inspections and other services specified in individual specification sections and as required by the ODR and jurisdictional authority. Tests and special inspections to be paid by the CONTRACTOR shall include the following, but not be limited to the list below.

<u>Section</u>	<u>Material Tests</u>

<u>Section</u>	<u>Special Inspection</u>

- C. Testing, inspections and source quality control may occur on or off the project site. Perform off-site testing as required by the ODR or the Owner.
- D. Four copies of reports shall be submitted by the independent firm to the ODR, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents. Copies of reports shall be wet stamped by authorized representative of testing agency.
- E. Testing and employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work in accordance with requirements of Contract Documents.
- F. Notify the ODR or notify the ODR and permitting agency, if applicable, prior to each scheduled test.
- G. Re-testing or re-inspection required because of non-conformance to specified requirements shall be performed by the same independent firm on instructions by the ODR.
- H. Testing Agency Responsibilities:
 - 1. Test samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at site. Cooperate with ODR and Contractor in performance of services.
 - 3. Perform specified sampling and testing of products in accordance with specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify ODR and Contractor of observed irregularities or non-conformance of Work or products.
 - 6. Perform additional tests required by ODR.
 - 7. Attend pre-construction meetings and progress meetings.
- I. Testing Agency Reports: After each test, promptly submit copies of report to ODR, as specified herein. When requested by ODR, provide interpretation of test results. At minimum, include the following in reports:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Name of inspector.

4. Date and time of sampling or inspection.
 5. Identification of product and specifications section.
 6. Location in the Project.
 7. Type of inspection or test.
 8. Date of test.
 9. Results of tests.
 10. Conformance with Contract Documents.
- J. Limits On Testing Agency's Authority:
1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 2. Agency or laboratory may not approve or accept any portion of the Work.
 3. Agency or laboratory may not assume any duties of Contractor.
 4. Agency or laboratory has no authority to stop the Work.

1.7 MANUFACTURERS' FIELD SERVICES

- A. When specified in individual specification sections, require material or product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, and adjust and balance of equipment as applicable, and to initiate instructions when necessary.
- B. Submit qualifications of observer to ODR 30 days in advance of required observations. Observer subject to approval of Owner.
- C. Report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Refer to Section 01330 - Submittal Procedures, Article entitled "Manufacturers' Field Reports".

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that existing site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.

- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual specification sections.
- D. Verify that utility services are available, of the correct characteristics, and in the correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer required or recommended substrate primer, sealer, or conditioner prior to applying any new material or substance in contact or bond.

END OF SECTION

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SECTION 01423

REFERENCED STANDARDS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Specifications for construction industry standards of industry associations, trade associations, societies, organizations, and regulatory agencies as they are invoked and used in these Specifications.

1.2 REFERENCE STANDARDS

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B. The effective date of referenced standards is stated in the General Conditions.
- C. Contractor shall have access to the reference standards. Referenced standards shall be made readily available, when requested, for use by the ODR in carrying out the quality assurance and quality control programs specified in the Contract Documents, and to assure compliance with the requirements of the codes, specifications, test methods, practices, and other standards referenced in the Contract Documents.
- D. Should specified reference standards conflict with other Contract Document requirements, request clarification from the ODR before proceeding.
- E. References to State Standard Specifications, City of Livermore, City of Dublin, and City of Pleasanton Standard Specifications (City SS): Where the State or City SS are referenced, Engineer shall be understood to mean the Owner's Designated Representative. Referenced Sections of the State or City SS include other Sections which are referenced within the referenced Sections with the exception that City SS Division 1 does not apply to the Work.

1.3 ABBREVIATIONS

- A. Wherever in the Contract Documents an organization's abbreviation or acronym is used, it shall be understood to mean the full name of the respective organization, as specified in the various Specification Sections, and as follows:

AASHTO	American Association of State Highway and Transportation Officials
ABAG	Association of Bay Area Governments
ACI	American Concrete Institute
ACP	Abestos Cement Pipe
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute

ASA	American Standards Association
ASTM	American Society for Testing and Materials (Also known as ASTM International)
AWWA	American Water Works Association
BASMAA	Bay Area Storm Water Management Agencies Association
BMP	Best Management Practices
CSA	Canadian Testing Association
C	Celsius (temperature)
Caltrans	State of California, Department of Transportation
CPM	Critical Path Method
CTS	Copper Tube Size
DOHS	Department of Health Services
DOT	United States Department of Transportation
F	Fahrenheit (temperature)
FTA	Federal Transit Administration
IEEE	Institute of Electrical and Electronics' Engineers
ITE	Institute of Traffic Engineers
MSDS	Material Safety Data Sheets
NEC	National Electrical Code
NEMA	National Electrical Manufacturers Association
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PG&E	Pacific Gas and Electric Company
PS	U. S. Product Standard
PSI	Pounds per Square Inch
PVC	Polyvinyl Chloride
QJ	Queue Jump

RWQCB	Regional Water Quality Control Board – State of California
SDR	Standard Dimension Ratio
TSP	Transit Signal Priority
UBC	Uniform Building Code of the International Conference of Building Officials
UL	Underwriters Laboratories
USA	Underground Service Alert
VCP	Vitrified Clay Pipe
Zone 7	Alameda County Flood Control and Water Conservation District, Drainage Area 7-1

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

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SECTION 01500

TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Construction Facilities:
 - 1. Progress cleaning and waste removal; cleaning requirements during construction operations.
- B. Temporary Controls:
 - 1. Water Quality Control Plan
 - 2. Dust, Erosion, and Sediment Control – Specific Measures
 - 3. Water control.
 - 4. Noise control.
- C. Removal of temporary facilities, and controls.

1.2 RELATED SECTIONS

- A. Section 01570 – Traffic Control System.

1.3 REGULATORY REQUIREMENTS

- A. Refer to requirements for Water Quality Control Plan and implementation in this Section.

1.4 SUBMITTALS

- A. Submit traffic control plans to the ODR and City Engineering Department and obtain approval prior to commencement of work on site. Submit a copy of the approved plans to the ODR.

1.5 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Collect and remove waste materials, debris, and rubbish from site weekly and dispose off-site.

1.6 WATER QUALITY CONTROL PLAN

- A. The Contractor shall comply with all appropriate Best Management Practices and applicable design recommendations of the City Water Resources Division and Regional Water Quality Control Board (RWQCB) for preventing and removing pollutants, specifying

erosion control measures, including sedimentation basins, infiltration basins, and re-vegetation of graded slopes.

1. If requested by the Engineer, the Contractor shall submit a Water Quality Control Plan that identifies the specific facilities and slopes to be protected, BMP's to be implemented, and meets all NPDES requirements. The cost associated with preparation and submittal of the Water Quality Control Plan, installation, maintenance and removal WPCP facilities and materials shall be included in the price paid for various items of work, and no additional payment will be allowed therefore.

B. Construction water quality control measures shall include the following:

1. Existing vegetation shall be retained where possible,
2. Grading activities will be limited to the immediate area required for construction,
3. Erosion control measures such as silt fences, staked straw bales, and temporary re-vegetation shall be employed for disturbed areas to prevent soil, dirt and debris from entering the storm drain system;
4. No disturbed surfaces shall be left without erosion control measures in place during the winter and spring months; Sediment shall be retained onsite by a system of sediment basins, traps, or other appropriate measures;
5. Measures shall be taken to ensure proper collection and disposal of all pollutants handled or produced on the site during construction, including sanitary wastes, cement, and petroleum products;
6. All storm water conveyance and discharge facilities that will be the responsibility of the City shall be designed and constructed in accordance with City Standard Specifications and Details.
7. Periodically inspect earthwork to detect evidence of erosion and sedimentation; promptly apply corrective measures.

C. If groundwater is encountered during construction activity, the Contractor shall comply with the provisions of the RWQCB's General Permit for Dewatering and Other Low Threat Discharges to Surface Waters. Compliance shall include preparation of a monitoring and reporting program and implementation of Best Management Practices associated with the dewatering activities.

1.7 DUST, EROSION, AND SEDIMENT CONTROL - SPECIFIC MEASURES

- A. Dust control measures shall be implemented in accordance with Bay Area Air Quality Management District (BAAQMD) standards, relevant sections of the various City standard specifications, and Section 10, "Dust Control," of the State Standard Specifications.

1.8 WATER CONTROL

- A. Prevent surface ponding anywhere on site during and after construction.

- B. Grade site to drain. Maintain excavations free of water. Provide, operate, and maintain pumping equipment, as required.
- C. Protect site from puddling or running water.

1.9 NOISE CONTROL

- A. Provide methods, means, and facilities to minimize noise from noise produced by construction operations.
- B. Comply with noise regulations of jurisdictional authorities, including the following:
 - 1. Chapter 9.04 of the City of Pleasanton Municipal Code.

1.10 REMOVAL OF TEMPORARY FACILITIES, AND CONTROLS

- A. Remove temporary equipment, facilities, materials, prior to Substantial Completion inspection.
- B. Remove underground installations to a minimum depth of 2 feet. Grade site as indicated.
- C. Clean and repair damage caused by installation or use of temporary work.
- D. Restore existing and permanent facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

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SECTION 01505

MOBILIZATION

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. The work under this Bid Item consists of preparatory work including, but not limited to, work necessary for the mobilizing and furnishing at the site, equipment, materials, supplies and incidentals; for the establishment of all offices, buildings and other temporary facilities necessary for work on the project; cost for pre-paid bonds and insurances; obtaining necessary encroachment permits from local agencies; and for all other work and operations which must be performed or costs incurred to begin work on the various Bid Items at the project site. Compensation for mobilization includes, but is not limited to, the following principal items:
1. Moving onto the site of all Contractor's equipment required for operations.
 2. Installing temporary construction power and wiring.
 3. Developing and installing construction water supply.
 4. Providing all on-site communication facilities, including telephones.
 5. Providing on-site sanitary facilities and potable water facilities
 6. Arranging for and erection of Contractor's work and storage yard(s).
 7. Obtaining and paying for all required bonds and insurances including the bond required by Article 2.4 of the Public Works Code.
 8. Posting all OSHA-required notices and establishing safety programs.
 9. Having the Contractor's superintendent at the job site full time, whenever construction is in progress.
 10. Submitting preconstruction submittals, including
 - a. Construction Schedule as specified in Section 01323, Network Analysis Schedules.
 - b. Traffic Control and Pedestrian Access Plan as specified in Section 01570, Traffic Routing Work.
 - c. Obtaining and paying for encroachment permits from local agencies and complying with local requirements.
- B. Contractor is alerted to the condition that the maximum amount to be listed for mobilization Work of this Section under the Bid Item – "Mobilization" shall not exceed five percent (5%) of the appropriate bid price sub-total, excluding the Mobilization bid item itself.

1.2 RELATED SECTIONS

- A. Division 0 – General Requirements and Supplemental General Provisions
- B. Section 01020 – Allowances
- C. Section 01330 – Submittals
- D. Section 01500 – Temporary Construction Facilities and Controls

1.3 PAYMENT PROCEDURES

- A. The Bid Item “Mobilization” will be paid as a Lump Sum over the course of the project based on percent completion of the work.

% Bid Item Mobilization Payment	% Project Completion
25%	2%
50%	5%
75%	10%
100%	20%

- B. Any extension of the contract time that may be granted will not of itself constitute grounds for a claim for additional payment under the Bid Item “Mobilization.”

PART 2 - PRODUCTS

Not Used

PART 3 - EXECUTION

Not Used

END OF SECTION

SECTION 01570

TRAFFIC CONTROL SYSTEM

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. This Section sets forth the minimum requirements for traffic routing and traffic control under Contract Documents.
- B. The Contractor (having C-10 license issued by the State of California Contractors State License Board) may perform the traffic routing work utilizing his/her own forces, or may engage a subcontractor to perform the traffic routing work. If the Contractor intends to engage a subcontractor to perform this work, the subcontractor must possess a C-31 Construction Zone Traffic Control license issued by the State of California Contractors State License Board, and said subcontractor shall be listed on the list of Subcontractors to be submitted as part of the sealed bid.
- C. If the Contractor does not have a proper license (Contractor's C-10), he shall have C-31 Construction Zone Traffic Control License issued by the State of California, Contractors Licensing Board to perform any Traffic Routing Work or shall engage a subcontractor who has C-31 license issued by the State of California to perform Traffic Routing work, and said subcontractor shall be listed on the list of Subcontractors to be submitted as part of the sealed bid.
- D. The Contractor shall provide for the protection of the traveling public, pedestrians, bicyclists, and workers within the area covered by the limits of construction, at all times when the area is affected by his/her construction facilities or activities. The Contractor attention is directed to Section 7-1.09, "Public Safety", of the State Standard Specifications. Nothing in these Special Provisions shall be construed as relieving the Contractor from his responsibility as provided in said Section 7-1.09.
- E. The Contractor shall so conduct his/her operations as to cause the least possible obstruction and inconvenience to the public and area residents, and shall have under construction no greater length or amount of work, than set forth in the specifications, and that he can prosecute properly with due regard to the rights of the public and area residents. The Contractor attention is directed to Section 7-1.08, "Public Convenience", of the State Standard Specifications.
- F. The Contractor shall furnish, install, relocate to provide for lane shifting, remove, store, maintain (including covering and uncovering as required), move to new locations, replace when damaged or missing and dispose of all traffic signs and traffic control devices and features necessary for safety and convenience of the general public and area residents, and for safeguarding the workers and the work, where, and as required by conditions at the site of the work, and in addition to the requirements specified herein, including but not limited to the following:
 - 1. Traffic signs and parking prohibition signs
 - 2. Barricades with flashers
 - 3. Delineators

4. High level warning devices
5. Solar-powered flashing arrow signs
6. Pedestrian barricades
7. Temporary striping and reflective markers, overlay markers, for both construction and interim re-alignments of traffic lanes, cross-walks prior to final striping
8. Providing certified flag persons
9. Responding to requests and complaints from local merchants and residents regarding traffic related complaints.

The Contractor attention is directed to Section 12, "Construction Area Traffic Control Devices", of the State Standard Specifications and the latest edition of the California Manual on Uniform Traffic Control Devices.

- G. The Contractor shall provide traffic lanes and routing of vehicular and pedestrian traffic, as specified herein, in a manner that will be safe and will minimize traffic congestion and delays during construction.

1.2 APPLICABLE STANDARDS

- A. In addition to compliance with this specification, the Contractor shall comply with all applicable requirements of the latest editions of the following:
1. *California Vehicle Code.*
 2. Other Applicable Government Regulations.
 3. Section 015526; Temporary Traffic Control Systems of the *Standard Specifications for the City of Livermore.*
 4. Section 10-1.05; Maintaining Existing and Temporary Electrical Systems of the *Standard Specifications for the City of Dublin.*
 5. Section 2; Traffic Control of the *Standard Specifications for the City of Pleasanton.*
 6. Section 12, "Traffic Control," of the *State Standard Specifications*, Department of Transportation, State of California (Caltrans Standard Specifications) except as modified herein.
 7. *California Manual of Uniform Traffic Control Devices*, Department of Transportation, State of California.
 8. *Manual of Traffic Controls for Construction and Maintenance Work Zones*, Department of Transportation, State of California.
 9. *Work Area Traffic Control Handbook*, BNI Books.

1.3 SUBMITTALS

The Contractor shall make the following submittals and get them approved by the ODR before starting any work in the streets:

- Traffic Control Plans and Pedestrian Access Plans
- Storage and Parking Plan
- Schedule of Construction
- Resume and Certification of two Flag Persons
- Truck Routes

1.3.1 Traffic Control Plans

- A. Revised traffic control and pedestrian access plans shall be required for any deviation from the approved traffic control and pedestrian access plans as furnished by the Contractor and must be approved by the ODR. A separate set of traffic control and pedestrian access plans shall be required for working and non-working hours. The plans shall include an affidavit signed by the licensed engineer who prepared them attesting that he/she has personal knowledge of the traffic conditions in the work areas, understands the impacts the work will have on vehicular, pedestrian, and other modes of transportation, and that the traffic plans comply fully with all ADA requirements and all City requirements related to providing path of travel through construction zones.
- B. Complete traffic control, pedestrian access, and detour plans shall be submitted within 15 calendar days following Notice To Proceed. The Contractor shall allow twenty-one (21) calendar days for City to review and approve the traffic control plans. A submittal shall consist of one (1) reproducible vellum, plus four (4) Xerox copies on white paper or blue prints of each drawing. Maximum drawing size shall be 36" X 24". The traffic control plans shall be drawn to a scale of 1 inch = 50 feet. The Contractor shall submit the plans to the Traffic Engineer, through the ODR for approval. No work shall be allowed on the streets without the approved traffic control plans. The Contractor shall use the existing striping plans as a base to prepare the traffic control plans.
- C. Submit construction plans/spec and traffic control and pedestrian access plans with each Local Agency encroachment permit application. Allow at least 2 weeks for review and processing. Fees will be charged at issuance of permit.
- D. Each traffic control and pedestrian access plan shall show the following minimum applicable information, as required by the ODR:
 1. Street and traffic lane layout (width of sidewalk, street and lanes etc.); outline of the work under construction (i.e., limits of excavation), location of construction barricades, location of trench protection devices, location of major construction equipment and the ingress and egress routes of trucks hauling materials to and from the construction site.
 2. Sequence of construction and traffic lane transitions.
 3. Crosswalk and sidewalk closures.
 4. Existing striping, pavement markings and traffic signs, and description of what is to be removed prior to installation of temporary striping and signage, and what will be restored after the construction is completed.

5. Location and spacing of "Tow-Away No Stopping" signs.
6. Location and description of temporary striping, pavement markings, signs, and other traffic control devices necessary to provide and maintain the adequate number and width of traffic lanes specified herein, and to provide and maintain passage and protection for pedestrians.
7. Location and description of traffic control devices proposed for the protection of the work area, excavation, etc.
8. Other proposed changes and provisions for removal, relocation, or temporary installation of:
 - a. Traffic signs
 - b. Transit stops
 - c. Barricades
 - d. Solar operated flashing arrow signs
 - e. Traffic Signals
9. The Contractor shall make their own arrangements to find a location for their office/trailer(s). The City will not provide a location. The trailer(s) shall be located away from intersections in order not to block traffic control devices (STOP signs, signals etc.), hydrants, bus stops, or driveways.
10. Location of detour signs for vehicular, truck, and pedestrian traffic.
11. Truck Routes: Contractor shall submit truck routes for the approval of the ODR.

1.3.2 Storage and Parking Plans

The Contractor shall submit plans for materials storage and equipment parking, for each area of the work, along with the traffic control plans.

Storage, stockpiling or placement shall not in any way obstruct any lane or passageway intended for vehicular or pedestrian traffic.

Storage, stockpiling, or placement of any equipment, materials or supplies within the area of any public street or alley, including the sidewalks thereof, will be allowed only with approved storage and parking plans by the ODR.

If the ODR determines that such storage, stockpiling or placement causes a violation of the foregoing or of any law or order of any regulatory body having jurisdiction, the Contractor shall cease or modify the storage, stockpiling or placement as necessary to comply with the specifications, laws and orders.

1.3.3 Schedule of Construction

The Contractor shall submit a copy of the schedule of construction to the ODR for review and approval.

PART 2 – PRODUCTS

2.1 GENERAL

- A. All traffic signs, barricades, delineators, flashing arrow signs and other traffic control devices shall conform to the requirements of the "Manual of Traffic Controls for Construction and Maintenance Work Zones", published by the State of California, Department of Transportation, and to the requirements of the State Standard Specifications, except as specified herein.
- B. All special construction traffic signs shall be reflectorized with black messages/symbols having 6" (15 cm) and/or 8" (20 cm) high series D letters on orange colored aluminum plate. The message and size of the letters shall be determined by the ODR through the Traffic Engineer. Any changes on any signs shall be made with appropriate decals.
- C. All barricades shall have flashers. The flashers shall be maintained in good operating condition at all times by the Contractor.
- D. Temporary Asphalt, Temporary Wood Ramp, 4-foot wide minimum walking surface with running slope not to exceed eight (8) percent.
- E. Barricade materials: Delineators, A-Frames, Barrier Caution Tape, Fencing Material
- F. Any equipment that does not operate properly or any device that is not in good operating condition shall be removed from the job site immediately at the contractor's expense.

2.2 DELINEATORS

Delineators for lane taper areas for the separation of traffic from other work, shall be either reflectorized traffic cones minimum 28 inches (71 cm) high, or reflectorized portable tubular delineators minimum 36 inches (91 cm) high, with orange posts and yellow/white reflectors. Reflector units shall be 3"x 12" (8 cm x 30 cm) minimum.

2.3 PLATING

Metal plating and any metal bridging shall be coated with non-skid and rust-inhibitive product. Plating shall be installed and maintained in such a manner as to provide a non-skid surface with no edges or corners sticking up, and with non-bouncing or shifting.

PART 3 - EXECUTION

3.1 VEHICULAR AND PEDESTRIAN TRAFFIC

- A. Traffic Control System for Lane Closure

A traffic control system shall consist of closing traffic lanes and ramps in accordance with the details shown on State Standard Plans T-11, T-12 and T-14, the provisions of Section 12, "Construction Area Traffic Control Devices," of the State Standard Specifications, the provisions under "Traffic Routing Work" elsewhere in these Special Provisions.

The provisions in this section will not relieve the Contractor from the responsibility to provide additional devices or take measures as may be necessary to comply with the provisions in Section 7-1.09, "Public Safety," of the State Standard Specifications.

Each vehicle used to place, maintain and remove components of a traffic control system on multilane roads shall be equipped with a Type II flashing arrow sign which shall be in operation when the vehicle is being used for placing, maintaining, or removing the components. Vehicles equipped with a Type II flashing arrow sign not involved in placing, maintaining, or removing the components when operated within a stationary type lane closure shall only display the caution display mode. The sign shall be controllable by the operator of the vehicle while the vehicle is in motion.

If any component in the traffic control system is displaced, or ceases to operate or function as specified, from any cause, during the progress of the work, the Contractor shall immediately repair the component to its original condition or replace the component, and shall restore the component to its original location.

When lane closures are made for work periods only, at the end of each work period, all components of the traffic control system, except portable delineators placed along open trenches or excavations adjacent to the traveled way, shall be removed from the traveled way and shoulder. If the Contractor so elects, the components may be stored at selected central locations, approved by the ODR.

The Contractor shall provide the tabulated lanes to satisfactorily accommodate vehicular traffic. Vehicular/ pedestrian access to properties along the project site shall be maintained at all times. Bicycle lanes shall be maintained by the Contractor at all times during construction. Appropriate warning signs designed for bicyclists shall be used by the Contractor, as necessary, so bicyclists can safely traverse the construction zone.

Traffic Lane Requirements

The full width of traveled way shall be open for use by public traffic before 9:00 AM and after 3:30 PM, and on weekends and holidays.

The full width of the traveled way in the City of Pleasanton shall be open for use by public traffic before 8:30 AM and after 4:00 PM on weekdays when school is in session.

The following minimum number of lanes, in each direction of travel, shall be maintained by the Contractor for the traffic control plan.

Traffic Lane Requirements For Each Direction Of Travel

Number of lanes available	Number of lanes open to public traffic			
	Monday - Friday	Monday - Friday	Monday – Friday	Monday – Sunday
	9 AM – 11 AM	11 AM – 1 PM	1 PM – 3 PM	All Other Times
1	1	1	1	ALL
2	1	1	1	ALL
3 or more	2	1	2	ALL

If these requirements cannot be met, the Contractor shall notify the ODR in writing of the reasons therefor and propose modifications to the lane closure requirements for the ODR's review. The ODR will make the final determination on any modified lane closure requirements in writing.

The Contractor shall follow the local lane closure requirements included in **Appendix A**.

B. Maintaining Pedestrian Access

The Contractor shall provide a continuous, accessible and safe path of travel around or through construction work zones for pedestrians. The Contractor shall use temporary asphalt or wood ramps, signs, cones, barricades, flashers, and flaggers to direct and channel pedestrians during construction. Advance warning shall be provided to pedestrians of the present sidewalk construction site. Means for temporary access for pedestrians with disabilities, such as temporary ramps, boardwalks, barriers, etc., shall be in compliance with applicable Americans with Disabilities Act Accessibility Guidelines (ADAAG) and Americans with Disabilities Act (ADA) regulations.

Placement:

Temporary ramps shall be constructed so installation and removal will not damage existing pavement, curb and/or gutter.

Ramps shall have a minimum 4-foot wide walking surface and a running slope not to exceed 8 percent.

Ramps shall meet existing surfaces without gaps. When required for drainage, a Schedule 40 PVC pipe minimum 2-inch diameter shall be installed under or through ramp in gutter or flow line.

Transitions between ramps and the street or sidewalk surfaces shall be smooth.

Sides of the ramp shall be protected where drop-offs exceed 6 inches.

Maintenance of a Clear and Accessible Pedestrian Corridor:

The Contractor shall maintain an accessible corridor that provides at least one safe path of travel for all pedestrians at all times for the duration of the project. Conversely, if a safe path of travel is not available, the Contractor shall post the sidewalk as being closed. Signage shall be placed at the location of closure as well as the next intersection in both directions.

Installation of Barricades:

Barricades, which will provide protection for pedestrians from traffic or construction operations, shall be installed in the following locations:

Between the pedestrian access route and any adjacent construction site

Between the alternate circulation path and any adjacent construction site

Between the alternate circulation path and the vehicular way, if the alternate circulation path is diverted into the street

Between the alternate circulation path and any protruding objects, drop-offs, or other hazards to pedestrians

At the down curb ramp of an intersection, if opposite up curb ramp is temporarily or completely blocked, and no adjacent alternative circulation path is provided.

Surfacing of Pedestrian Corridors:

During construction, tripping hazards and barriers for people with mobility impairments must be removed to maintain an accessible pedestrian corridor.

Identification of Safe Path of Travel:

If alternate circulation routes are provided for pedestrians to bypass the construction site, the route shall be clearly defined and advance warning shall be provided to clearly delineate the alternate circulation route. Any change of level in a path of travel that is over ¼ inch (1/2" maximum) height must be beveled a 45 degrees to provide a smooth, non- tripping transition. The City Traffic Engineer shall review and approve any pedestrian access limitations and notification requirements for pedestrians with mobility or vision impairments.

Public Convenience and Safety:

All trenches shall be backfilled at the end of the day or temporary covers shall be maintained during non-working hours to avoid any safety issues for pedestrians walking on the project areas.

The Contractor shall contact the property owners 24-hours prior to any disruption to driveway. Closure for driveways or access to the private property shall be minimized.

The Contractor shall make all arrangements with the property owners for the use of private land for detours and for any other purpose and shall make the Owner and Cities free from any liability incurred through the use or non-use of such private property.

Warning Signs:

The Contractor shall provide warning signs for temporary ramps and barricades. Warning signs shall be located at both the near side and the far side of the intersection preceding a temporarily completely blocked pedestrian way.

Restoration of Pedestrian Routes:

After construction, the site shall be restored to its former condition, or new condition as required.

Full compensation for providing, installing, removing and maintaining devices for "Maintaining Pedestrian Access" shall be considered as included in the contract lump sum price paid for "Traffic Control System" and no separate payment will be allowed therefore.

3.2 SPECIAL INSTRUCTIONS

Contractor shall comply with all traffic control requirements as specified in the encroachment permit for each City. Attention is directed to Appendix A, "Local Agency Encroachment Permit Requirements" of these Special Provisions.

3.3 NO PARKING SIGNS

The Contractor will furnish and post "No Parking" signs, as necessary, not less than 72 hours in advance of scheduled work that will restrict parking. If the work is not performed during the timeframe indicated on the "No Parking" signs, the work will be rescheduled with at least five (5)

working days advance notice. The Contractor shall leave the streets open to traffic until just prior to starting the work, and will provide all barricades, signs and traffic control necessary to protect the work. The Contractor will perform all re-posting of "No Parking" signs and re-notification occasioned by his failure to meet the posted schedule.

"No Parking" signs shall indicate time, day, and date and the statement "Violators will be Towed at Owner's Expense - CVC 22651 For info on Towed Vehicles call **[Contractor to coordinate with Local Agency Inspector for appropriate contact phone number for towed vehicles]**"

The Contractor shall furnish and place, spaced every **50 feet**, where approved by the ODR. The Contractor shall maintain the signs on a continual basis and shall replace damaged or missing signs daily, and shall remove the signs immediately after they are no longer needed.

3.4 TEMPORARY CONSTRUCTION AND TRAFFIC SIGNS

- A. The Contractor shall be familiar with the latest edition of California Department of Transportation's "Manual of Traffic Controls for Construction and Maintenance Work Zones", and the Special Provisions of the Contract.
- B. The Contractor, before starting any work which will affect the normal flow of traffic, shall furnish, install where and as necessary, or directed, and maintain, temporary signs, mounted on barricades or other suitable supports as necessary.
- C. The Contractor shall, as a minimum, furnish and make available to the site the following signs and equipment in sufficient quantities to maintain required traffic routing:
 - 1. Barricades, as required by Section 21,400 of the State of California *Vehicle Code* and as specified in the State of California's Department of Transportation "Manual of Traffic Controls, for Construction and Maintenance Work Zones", dated 1990, in sufficient amount to safeguard the public and the work.
 - 2. "NO PARKING" signs as herein specified.
 - 3. Traffic cones and/or delineators and/or temporary reflectorized removable tape of 3M Series 5710 (white), Series 5711 (yellow) or equal, no known equal, to delineate traffic lanes as required to guide and separate traffic movements, as directed by the ODR.
 - 4. High level warning flag units, in advance of traffic approaching the work, each displaying three (3) flags mounted at a height of 8 feet (2.4 m).
 - 5. Additional signs as required by the ODR.

The actual number and type of signs to be placed shall be as shown on the approved traffic routing plans or as directed by the ODR.

All the signs and/or temporary striping shall be reflectorized. All the signs shall be installed so that the bottom of the sign is at least 7 feet (2.1 m) above the sidewalk or pavement, or as directed by the ODR.

The signs and equipment shall conform to the requirements of the latest edition of the "California Manual on Uniform Traffic Control Devices" and to applicable City Noise Ordinances.

3.5 TRAFFIC CONTROL

A. TRAFFIC COORDINATION WITH OTHERS

1. The Contractor, in order to maintain a continuous flow of traffic, shall coordinate the traffic routing work with his sub-contractors and other contractors, working in the same adjacent area. This includes truck traffic hauling materials, equipment and etc.
2. All proposed traffic routing changes shall be subject to approval of the City Traffic Engineer through the ODR.
3. Contractor is also advised to coordinate his work with other projects occurring within or adjacent to the limits of work as described in Section 01100, "Summary" of these special provisions.

B. TRAFFIC CONTROL FLAG PERSONS

1. Flaggers, flagging procedures (signaling), flagger stations and flagger control, shall conform to Section 5-07, "Manual of Traffic Controls for Construction and Maintenance Work Zones", 1990.
2. The Contractor shall ensure that flaggers are trained in the proper fundamentals of flagging traffic before being assigned as flaggers.
3. The flaggers shall be used in each situation when the Contractor's equipment or vehicle backs up into a travel lane, or occupies intermittently a traffic lane, or enters from the work area into a traffic lane, or where required for traffic control, as directed by the ODR.

3.6 MAINTENANCE OF TRAFFIC

- A. The Contractor shall cause the least possible interference with traffic. He shall not obstruct nor close any roadway to vehicular or pedestrian traffic, except in the immediate vicinity of the work.
- B. Those parts of public streets, ways and sidewalks that are occupied by the Contractor shall be immediately vacated by him and returned to public use when his use thereof is no longer necessary for the prosecution of the work.
- C. The Contractor, except as hereinafter provided, shall not impede, at any time, free access for vehicles and pedestrians to warehouses, stores, service stations, dwellings, garages and other properties in the vicinity of the work and on adjacent streets, including those properties fronting on streets allowed or stipulated by the Specifications to be closed to through vehicular traffic. He shall provide for such local access by phasing his operations, bridging, or employing other procedures approved by the ODR.
- D. The Contractor shall obtain written permission of each affected property or business owner, or responsible building or business manager, for any proposed period of prohibition or impediment of such access. Prohibition or impediment of access to any building or property for which the ODR does not have a copy of the specified signed permission will not be allowed.

- E. Access to fire hydrants, to assure their immediate and unhampered use at all times, shall not be impaired by the Contractor. No debris, materials or equipment shall be placed within 10 feet of any fire hydrant.

3.7 DIVERTING OF VEHICULAR TRAFFIC

- A. When closing one or more lanes to vehicular traffic or to otherwise divert such traffic from its normal paths, the Contractor shall clearly delineate temporary centerlines separating two-way traffic, and dividing lines for other temporary traffic lanes, by employing cones, barricades, flags, reflectors, or other approved methods or devices.
- B. Placing of devices shall commence sufficiently in advance of the obstruction or other cause of the diverting of traffic to minimize congestion and shall enable traffic to enter, traverse and leave the site of the work without abrupt or unwarranted changes in direction. Unless otherwise specified or approved, each temporary traffic lane shall be not less than 10 feet clear width.
- C. When a detour is necessary for full or partial roadway closure, all detour signs needed for the required traffic routing must be in place before the roadway can be closed for construction. Failure to comply with this requirement shall result in liquidated damages associated with improper lane closure.
- D. High rise warning flag units, each displaying three flags mounted at the height of 9 feet, to provide advance warning for traffic approaching the work, will be required in all cases where motorists' visibility of the work is limited or obscured.

3.8 RELOCATION AND REMOVAL OF EXISTING PERMANENT TRAFFIC CONTROL AND SIGNS

- A. The Contractor shall be familiar with all existing permanent traffic signs and other traffic control devices within the project limits.
- B. The Contractor shall temporarily relocate all traffic control, street name, and other City signs, as required for the prosecution of the work and to prevent interference with traffic signal installations, and shall satisfactorily maintain such signs in place at all times. He shall similarly relocate, or remove and salvage as City property, the standards for such signs. The Contractor shall salvage standards in their entirety, and shall remove any concrete therefrom.
- C. The temporary relocation of each arterial "STOP" or other traffic regulatory sign shall be done immediately upon its removal, and to a location as close as possible to the original position of such sign, or where directed by the ODR.
- D. The Contractor shall submit and obtain approval 5 working days prior to permanently relocate traffic control and other signs and standards to the locations shown, as directed in the plans. Signs to be removed and salvaged are to be delivered by the Contractor to the City Corp Yard of the Local Agency,

City of Dublin – 951 Turner Court, Hayward, CA 94545

City of Livermore – 3500 Robertson Park Rd, Livermore, CA 94550

City of Pleasanton – 3333 Busch Rd, Pleasanton, CA 94566

- E. At least 5 working days prior to the time the Contractor's work will be done to the point that permanent installation of the signs temporarily relocated by him can be inspected, he shall notify the ODR.
- F. If additional materials (sign, pole, frame, mounting equipment, etc.) and adjustments are needed during the inspection, the associated cost shall be borne by the Contractor for an additional cost to be included in a contract change order.

3.9 EXISTING TRAFFIC SIGNAL SHUTDOWN AND MAINTENANCE

- A. Where it is necessary to shut down existing traffic signals at any intersection, the Contractor shall notify the ODR and City Traffic Engineer forty-eight (48) hours in advance of the start of each such shutdown. Notification shall be written and shall also include a contact name and number to be used in case of emergency. If the Contractor fails to provide notice as detailed above, liquidated damages shall be assessed at \$200 per incident.
- B. Two flaggers shall be required when the signal is shut down, when the signal is in flash, or when the signal is not fully operational.

Six flaggers shall be required at the intersection of Dublin Boulevard and Dougherty Drive when the signal is shut down, when the signal is in flash, or when signal is not fully operational. Contractor shall install temporary Stop signs on each approach and for left turn lanes when the signal is shut down.
- C. The Contractor shall, with the approval of the ODR, place the signals on flashing operation for the duration of the shutdown. If flashing operation is not possible, the Contractor shall provide a portable flashing unit and shall make all necessary, or required, connections to effect flashing operation.
- D. The operation, and interconnected functioning, of such existing traffic signals shall not be disturbed before 9:00 a.m., and the traffic signals shall be returned to normal working conditions before 2:00 p.m. of the same day. Liquidated damages of \$500 per hour shall be charged if signal is not fully operational after 2:00 PM.
- E. All work and expenses for maintenance of existing traffic signal and streetlights in operation shall be done as incidental work to this contract.

END OF SECTION

SECTION 01600
PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.
- E. Product substitution procedures.

1.2 PRODUCTS

- A. Provide products of qualified manufacturers suitable for intended use. Provide products of each type by a single manufacturer unless specified otherwise.
- B. Provide items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects will not be considered new products.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to ensure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products in accordance with manufacturers' instructions.
- B. Store with seals and labels intact and legible.
- C. Store sensitive products in weather tight, climate controlled, enclosures in an environment favorable to product.
- D. For exterior storage of fabricated products, place on sloped supports above ground.
- E. Provide bonded off-site storage and protection when site does not permit on-site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.

- G. Store loose granular materials on solid flat surfaces in a well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- I. Arrange storage of products to permit access for inspection. Periodically inspect to verify products are undamaged and are maintained in acceptable condition.

1.5 PRODUCT WARRANTIES

- A. Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of Contract Documents.
 - 1. Manufacturer's Warranty: Preprinted written warranty published by individual manufacturer for particular product and specifically endorsed by manufacturer to Owner.
 - 2. Special Warranty: Written warranty required by or incorporated into Contract Documents, either to extend time limit provided by manufacturer's warranty or to provide more rights for Owner.
- B. Special Warranties: Prepare written document that contains appropriate terms and identification, ready for execution. Submit a draft for approval before final execution.
 - 1. Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
 - 2. Specified Form: When specified forms are included with Specifications, prepare written document using appropriate form properly executed.
 - 3. Refer to Divisions 2 through 16 for specific content requirements and particular requirements for submitting special warranties.
- C. Submittal Time: Comply with requirements in Section 01700, Execution and Closeout Requirements.

1.6 PRODUCT OPTIONS

- A. Products specified by reference standards or by description only: Any product meeting those standards or description, by any manufacturer.
- B. Products specified by naming one or more trade names of products or the names of manufacturer with catalog information and not qualified by the words "Designated Matching Product": One of the products named which meets the specifications or an equal approved under the Product Substitution Procedures specified herein.
- C. Products specified by naming one product or manufacturer followed by the words "Designated Matching Product". There is no option.

1.7 PRODUCT SUBSTITUTION PROCEDURES

- A. Comply with the following procedures to obtain approval of a proposed “equal” product and under other circumstances such as when a product becomes unavailable through no fault of the Contractor.
- B. The ODR will consider requests for Substitutions only within 30 days after date of Notice to Proceed. Substitutions may be considered later than 30 days after the date of the Notice to Proceed when a product becomes unavailable through no fault of the Contractor.
- C. Failure to propose the substitution of any article or service within 30 days after date of Notice to Proceed will be deemed sufficient cause for denial of request for substitution.
- D. A Request for Substitution constitutes a representation that the Contractor:
 - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
 - 2. Has determined that proposed product has proof of operation in similar application.
 - 3. Will provide the same warranty for the Substitution as for the specified product.
 - 4. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to Owner.
 - 5. Waives claims for additional costs or time extension which may subsequently become apparent.
 - 6. Will reimburse Owner for review or redesign services associated with re-approval by authorities.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.
- F. Approval of any substitute indicates only that the product apparently meets the requirements of the Drawings and Specifications on the basis of the information or samples submitted. The Contractor shall assume full responsibility for the performance of any substitutions.
- G. Substitution Submittal Procedure:
 - 1. Submit five copies of Request for Substitution included at the end of this Section. Limit each Request form to one proposed Substitution.
 - 2. Submit Shop Drawings, Product Data, and certified test results attesting to the proposed product equivalence.
 - 3. ODR will notify Contractor in writing of decision to accept or reject request.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

REQUEST FOR SUBSTITUTION FORM FOLLOWS

REQUEST FOR SUBSTITUTION

Project: _____ _____	Substitution Request Number: _____
To: _____ _____	From: _____
Re: _____	Date: _____
	CM Project Number: _____
	Contract For: _____

Specification Title: _____ Description: _____
Section: _____ Page: _____ Article/Paragraph: _____

Proposed Substitution: _____
Manufacturer: _____ Address: _____ Phone: _____
Trade Name: _____ Model No.: _____
Installer: _____ Address: _____ Phone: _____
History: New Product 2-5 years old 5-10 years old More than 10 years old
Differences between proposed substitution and specified product: _____

Point-by-point comparative data attached - REQUIRED BY ENGINEER

Reason for not providing specified item: _____

Similar Installation:

Project: _____ Architect: _____
Address: _____ Owner: _____
Date Installed: _____

Proposed substitution affects other parts of Work: No Yes; explain _____

Savings to Owner for accepting substitution: _____ (\$ _____)

Proposed substitution changes Contract Time: No Yes [Add] [Deduct] _____ days

Supporting Data Attached: Drawings Product Data Samples Tests Reports
 Evidence of Proven Operation

SUBSTITUTION REQUEST

(Continued)

The Undersigned certifies:

PART 4 - PROPOSED SUBSTITUTION HAS BEEN FULLY INVESTIGATED AND DETERMINED TO BE EQUAL OR SUPERIOR IN ALL RESPECTS TO SPECIFIED PRODUCT.

PART 5 - SAME WARRANTY WILL BE FURNISHED FOR PROPOSED SUBSTITUTION AS FOR SPECIFIED PRODUCT.

PART 6 - SAME MAINTENANCE SERVICE AND SOURCE OF REPLACEMENT PARTS, AS APPLICABLE, IS AVAILABLE.

PART 7 - PROPOSED SUBSTITUTION WILL HAVE NO ADVERSE EFFECT ON OTHER TRADES AND WILL NOT AFFECT OR DELAY PROGRESS SCHEDULE.

PART 8 - COST DATA AS STATED ABOVE IS COMPLETE. CLAIMS FOR ADDITIONAL COSTS RELATED TO ACCEPTED SUBSTITUTION WHICH MAY SUBSEQUENTLY BECOME APPARENT ARE TO BE WAIVED.

PART 9 - PROPOSED SUBSTITUTION DOES NOT AFFECT DIMENSIONS AND FUNCTIONAL CLEARANCES.

PART 10 - PAYMENT WILL BE MADE FOR CHANGES TO BUILDING DESIGN, INCLUDING A/E DESIGN, DETAILING, AND CONSTRUCTION COSTS CAUSED BY THE SUBSTITUTION.

PART 11 - COORDINATION, INSTALLATION, AND CHANGES IN THE WORK AS NECESSARY FOR ACCEPTED SUBSTITUTION WILL BE COMPLETE IN ALL RESPECTS.

Submitted by: _____

Signed by: _____

Firm: _____

Address: _____

Telephone: _____

Attachments: _____

ENGINEER REVIEW AND ACTION

- Substitution approved - Make submittals in accordance with Section 01330.
- Substitution approved as noted - Make submittals in accordance with Section 01330.
- Substitution rejected - Use specified materials.
- Substitution Request received too late - Use specified materials.

Signed by: _____ Date: _____

Additional Comments: Contractor Subcontractor Supplier Manufacturer A/E
 Engineer

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SECTION 01700

EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Cutting and patching.
- B. Final cleaning prior to turning project over to Owner.
- C. Starting of systems.
- D. Demonstration and instructions.
- E. Protecting installed construction.
- F. Closeout procedures.
- G. Maintenance service.
- H. Operations and Maintenance Manual and Data.
- I. Product warranties and product bonds.
- J. Record Documents.
- K. Spare parts and maintenance products.

1.2 CUTTING AND PATCHING

- A. Coordinate work through shop drawings and through proper sequencing of installation to ensure that cutting and patching specified herein is prevented. In case cutting and patching is required, submit written request in advance of cutting or altering any element.
- B. Employ skilled and experienced installer to perform cutting and patching.
- C. Execute cutting, fitting, and patching including excavation and fill, to complete Work, and to:
 - 1. Fit the several parts together, to integrate with other Work.
 - 2. Uncover Work to install or correct ill-timed Work.
 - 3. Remove and replace defective and non-conforming Work.
 - 4. Remove samples of installed Work for testing.
 - 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.

- D. Execute work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products in accordance with requirements of Contract Documents.
- G. Fit Work tight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- H. Maintain integrity of construction; completely seal voids.
- I. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for an assembly, refinish entire unit.

1.3 FINAL CLEANING

- A. Execute final cleaning prior to final project assessment.
- B. At completion of Work, remove remaining waste materials, rubbish, tools, equipment, machinery and surplus materials, and clean exposed surfaces; leave Project clean and ready for occupancy.
- C. Clean surfaces exposed to view; remove temporary labels, stains and foreign substances, and polish transparent and glossy surfaces.
- D. Clean debris from drainage systems.
- E. Clean site; sweep paved areas, rake clean landscaped surfaces.
- F. Remove waste and surplus materials, rubbish, and construction facilities from the site.

1.4 STARTING OF SYSTEMS

- A. Coordinate schedule for start-up of various equipment and systems.
- B. Notify ODR seven days prior to start-up of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, if applicable, and for conditions that may cause damage.
- D. Verify that wiring and support components for equipment are complete and tested.

1.5 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to Owner's personnel no later than 30 days prior to Final Completion at an agreed upon time.
- B. Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.

- C. Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment.

1.6 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual specification sections.
- B. Prohibit traffic from landscaped areas.

1.7 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected, and that Work is complete in accordance with Contract Documents and ready for ODR's review.
- B. Provide submittals that are required by governing or other authorities to ODR.
- C. Submit final Application for Payment identifying total adjusted Contract Sum, previous payments, and sum remaining due.

1.8 MAINTENANCE SERVICE

- A. Maintenance service, if applicable, shall not be assigned or transferred to any agent or Subcontractor without prior written consent of the Owner.

1.9 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible subcontractors, suppliers, and manufacturers, within ten days after completion of the applicable item of work.
- B. Execute and assemble transferable warranty documents and bonds from subcontractors, suppliers, and manufacturers.
- C. Verify that documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Provide Table of Contents and assemble in three D-side ring binder with durable plastic cover.
- F. Submit prior to final Application for Payment.
- G. Time of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 15 days after acceptance.
 - 2. Make other submittals within 15 days after Date of Substantial Completion, prior to final Application for Payment.

3. For items of Work for which acceptance is delayed beyond Date of Substantial Completion, submit within 15 days after acceptance, listing the date of acceptance as the beginning of the warranty or bond period.

1.10 PROJECT RECORD DOCUMENTS

- A. Maintain on site one set of the following record documents; record actual revisions to the Work:
 1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. Reviewed Shop Drawings, Product Data, and Samples.
 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record at each product section description of actual products installed, including the following:
 1. Manufacturer's name and product model and number.
 2. Product substitutions or alternates utilized.
 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction including:
 1. Measured depths of foundations in relation to permanent surface improvements.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Field changes of dimension and detail.
 4. Details not on original Contract drawings.
- G. Submit documents to ODR with request for final Application for Payment.

1.11 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Provide spare parts, maintenance, and extra products in quantities specified in individual specification sections prior to Substantial Completion.
- B. Deliver to and place in location as directed by the ODR; obtain receipt prior to final payment.

PART 2 - PRODUCTS

Not Used.

PART 3 - EXECUTION

Not Used.

END OF SECTION

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DIVISION 2 – SITE CONSTRUCTION

SECTION 02765

PAVEMENT STRIPES AND MARKERS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. This Section includes requirements for painting traffic stripes and pavement markers.

1.2 REFERENCE STANDARDS

- A. State Standard Specifications:
 - 1. Section 84, "Traffic Stripes and Pavement Markings"
 - 2. Section 85, "Pavement Markers"

1.3 SUBMITTALS

- A. Submit product data for paint, markers, and adhesive.
- B. Submit certificate of compliance for paint.

PART 2 - PRODUCTS

2.1 PAINT TRAFFIC STRIPES

- A. Paint for traffic stripes and pavement markings shall conform to the provisions in Caltrans Standard Specifications Sections 84-1, General, and 84-3, Painted Traffic Stripes and Pavement Markings.

2.2 PAVEMENT MARKERS

- A. Pavement markers shall conform to the provisions in Caltrans Standard Specifications Section 85, Pavement Markers. Markers shall be one of the following products or equal:
 - 1. Apex, Model 921AR (4" x 4")
 - 2. Ennis Paint, Models C88 (4" x 4"), 911 (4" x 4") and 953 (2.75" x 4.5")
 - 3. Ray O Lite, Model "AA" ARS (4" x 4")
 - 4. 3M Series 290 (3.5" x 4")
- B. Adhesive: Hot melt bituminous type as specified in State Standard specifications Section 85, "Pavement Markers."

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Paint traffic stripes (traffic lines) and pavement markings in accordance with the provisions in State Standard Specifications Sections 84-1, "General," and 84-3, "Painted Traffic Stripes and Pavement Markings," and as indicated on the Contract Drawings.
- B. Install pavement markers in accordance with the provisions in Caltrans Standard Specifications Section 85, "Pavement Markers".

Existing Pavement Striping and Markings – All existing thermoplastic striping and markings and existing striping and markings designated on the project plans or by the Engineer within areas to be overlaid shall be removed prior to placing of overlay pavement. Removal shall be performed by grinding such that not less than fifty percent (50%) of the underlying pavement is exposed. Contractor's attention is directed to "Remove Yellow Traffic Stripe and Pavement Markings" of these specifications. All materials resulting from grinding operations of the existing pavement striping and markings shall become the property of the Contractor and shall be removed from the Right of Way

END OF SECTION

SECTION 02850
ROADSIDE SIGNS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Roadside signs, including accessible parking stall signage.

1.2 REFERENCE STANDARDS

- A. American Association of State Highway and Transportation Officials (AASHTO):
 - 1. AASHTO M268 Retroreflective Sheeting for Traffic Control
 - 2. American Standards for Testing and Materials (ASTM):
 - 3. ASTM A653 Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot Dip Process
 - 4. ASTM B209 Specification for Aluminum and Aluminum-Alloy Sheet and Plate
 - 5. ASTM B449 Practice for Chromates on Aluminum
- B. Federal Highway Administration (FHA):
 - 1. FHA FP85 Visual Color Tolerance Charts
- C. California Manual on Uniform Traffic Control Devices
- D. City Standard Specifications (City SS):
 - 1. City of Pleasanton Standard Specifications Section 16, "Street Name and Traffic Signs."
 - 2. City of Livermore Standard Specifications Section 344105, "Signage."

1.3 SUBMITTALS

- A. Submit product data on sign plates, posts, and hardware.

1.4 REMOVE ROADSIDE SIGNS

- A. Existing roadside signs and/or sign posts, at locations shown on the plans to be removed (if any), shall be removed and salvaged to the City's Corporation Yard at 221 Commercial Avenue, LAVTA. Contractor shall give ODR 72 hours notice prior to sign and/or sign posts delivery.
- B. Existing roadside signs shall not be removed until replacement signs have been installed or until the existing signs are no longer required for the direction of public traffic, unless otherwise directed by the ODR.

1.5 RELOCATE ROADSIDE SIGNS

- A. Existing roadside signs shall be removed and relocated at new locations shown on the plans.
- B. Each roadside sign shall be installed at the new location on the same day the sign is removed from its original location.

1.6 INSTALL ROADSIDE SIGNS

- A. Roadside signs shall be installed at the locations shown on the plans or where directed by the ODR, and shall conform to the provisions in Section 56-2.01 through 56-2.04, "Roadside Signs," of the State Standard Specifications.
- B. The Contractor shall furnish and install the necessary foundation and posts for signs and new posts shown on the drawings. The Contractor shall furnish and install the necessary banding materials for signs to be installed on electroliers. Signs shall be in accordance with State Standard Specifications and in accordance with the following special provisions.

PART 2 - PRODUCTS

2.1 GENERAL

- A. Signage shall comply with the above referenced standards and City Standard Specifications, except as modified herein.

2.2 SIGN PLATES

- A. Sign faces shall be "High Intensity" retro-reflective sheeting material adhered to 0.080 gauge (minimum) anodized aluminum blank. The size, shape, color and legend of the sign shall conform to the current Sign Specifications published by the California Department of Transportation. Posts shall be galvanized iron pipe and in accordance with LAVTA Standard Specifications and Design Criteria.

2.3 OTHER SIGN MATERIALS

- A. Sign Posts and Hardware: As approved by local agency and specified in standard details.

PART 3 - EXECUTION

3.1 GENERAL

- A. The Contractor shall install Queue-jump signage as shown on the project Plans, as indicated in these Special Provisions and as directed by the ODR.

3.2 PREPARATION, ERECTION, AND INSTALLATION

- A. Locate existing facilities, pothole, and maintain existing utilities as specified in Section 02300, Earthwork, and as indicated on the Contract Drawings.

- B. Install posts in concrete footing as indicated on the Contract Drawings. Do not drive post into ground.

END OF SECTION

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DIVISION 16 – ELECTRICAL

SECTION 16010

ELECTRICAL GENERAL REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 DESCRIPTION

- A. Work Included:
 - 1. Section 16050 - Basic Materials and Methods
 - 2. Section 16600 – Traffic Signal and Lighting

1.3 REFERENCES AND STANDARDS

- A. Published specifications, standards, tests or recommended methods of trade, industry or governmental organizations apply to Work of this section where cited by abbreviations noted below:
 - 1. Underwriters' Laboratories, Inc. (UL).
 - 2. American Society for Testing Materials (ASTM).
 - 3. Caltrans Standard Plans and Specifications, Dated May 2006
 - 4. California MUTCD, Dated September 2006.

1.4 QUALITY ASSURANCE

- A. Refer to Division 1.
- B. Requirements of Regulatory Agencies and Standards:
 - 1. Permits: Obtain and pay for all fees, permits and inspections. Deliver all certificates of inspection to the City Representative.
 - 2. Legal Requirements: Comply with applicable sections of state and local codes, ordinance, rules and regulations of authorities having jurisdiction.
 - 3. Minimum Requirements: The requirements of authorities shall be the minimum acceptable requirements for the work. When contract drawings or specifications call for materials or construction of better quality or larger size than required by codes, laws, rules and regulations, the drawings and specifications shall take precedence.
 - 4. All electrical materials and equipment shall bear label of the Underwriters' Laboratories, shall be listed by them in their list of electrical fittings, and shall be approved by them for the purpose for which they are used, unless the materials and equipment are of a type which Underwriters' Laboratories do not list nor provide label service.
 - 5. Service Connections: Arrange and pay all costs for utilities required to complete all Work of this Division. Connection to all utility company or On-

site services, payment of service charges and provision for and installation of temporary utilities are included.

6. Contact power and telephone utility company representatives before commencing work. Coordinate all Work to their requirements, including making any required submittal to them and obtaining their review of work.

C. Drawings:

1. All scaled and figured dimensions are approximate and are given for estimate purposes only. Before proceeding with any work, carefully check and verify all dimensions and sizes.
2. So far as possible the work has been indicated on the drawings in such position as to suit and accommodate the work of other trades, but the work as indicated is largely diagrammatic and is shown primarily for clarity. Contractor is responsible for the correct placing of his work and the proper location and connection of his work in relation to the work of other trades. Branch circuit and signal system "home runs" are generally indicated by arrow. Continue all circuits to respective panel or terminal as if routing was shown in it's entirety.
3. When apparatus and equipment have been indicated on the drawings, dimensions have been taken from typical equipment of the class indicated. Carefully check the drawings to see that the equipment will fit into the spaces provided.
4. Where equipment is furnished by others, verify dimensions and the correct locations of this equipment before proceeding with the roughing-in of connections.
5. Be responsible for any cooperative work which must be altered due to lack of proper supervision or failure to make proper provision in time. Such changes shall be directly supervised by the City Representative and shall be made to his satisfaction.

1.5 SUBMITTALS

Make submittals in accordance with Section 21 of the Supplemental General Provisions

Make submittals of the following, in the order listed.

1. Manufacturer's Data.
2. Shop Drawings.

Submittals will be checked for general compliance of specifications only. Be responsible for deviations from drawings or specifications, and for errors or omissions of any sort in submittals.

Manufacturer's Data:

1. Submit a complete list of material and equipment proposed for the job, including manufacturer's name.
2. In addition, submit complete catalog information such as construction, capacity, types, photometrics, size, finishes, and mounting methods.

3. Reference all listings to paragraphs to which they are applicable and submit in brochure form.
4. For any material specified as ASTM, Federal Specifications, or trade standards, furnish the manufacturers or vendor's certification that the material furnished for the work does in fact equal or exceed such specifications.

Shop Drawings:

1. Submit details on Auto CAD or drawn by a competent draftsman.
2. Refer to individual sections for listing of material requiring shop drawings.

1.6 SUBSTITUTION OF MATERIALS

- A. Refer to Division 1.
- B. Equals: The design has been based on the manufacturer's name and product listed on the Drawings or named first in these Specifications. Other manufacturer's names listed in these Specifications may be selected and will be considered "as equal" for quality only: however, they must match the performance, construction, fit and features of those selected for design. The acceptance of these does not relieve the Contractor from responsibility of providing the required materials and providing a workable system.
- C. Liability of Substitutions: Performance of substitutions must be equal to the item specified. Should the substituted item fail to perform in accordance with specifications, replace same with the originally specified item without extra compensation or request of the City's Representative at any time within the guarantee period.

1.7 SHOP, OFFICE AND STORAGE

- A. Refer to Division 1.
- B. Provide temporary shop, office and storage space on site only at locations approved by the City Representative, as required for execution of work. Remove these facilities upon completion of work.

1.8 JOB CONDITIONS

- A. Refer to Division 1.
- B. Site Conditions: Examine the site and all electrical, mechanical, architectural and other drawings and accept such conditions and make allowances for them.
- C. Restoration of Damage: Repair or replace, as directed by the City Representative, materials and parts of premises which become damaged as result of installation of work of this Division. Remove replaced parts from premises.
- D. Protection of Materials:
 1. Protect materials, equipment and apparatus provided under this Division from damage, water, dust, or similar impairment, both in storage and installed, until Notice of Completion has been filed. Materials, equipment or apparatus

damaged because of improper storage or protection will be rejected and must be removed from site.

2. Cap openings in conduit with manufactured caps or fittings. Do not use taped caps.
 3. Protect premises and work of other Divisions from damage arising out of installation of work of this Division.
 4. Perform work in manner precluding fire hazard.
- E. Cleaning Equipment and Premises:
1. Clean equipment and materials: Remove all dirt, grease, splashed paint, plaster and similar foreign materials. Restore damaged finishes to original condition.
 2. Site Cleaning: Remove from site all packing cartons, scrap materials and other rubbish resulting from operations.

1.9 WARRANTY

- A. Refer to Supplemental General Provisions and Special Provisions.
- B. General: Warrant all equipment furnished under this specification for a period of one year from date of acceptance against defective workmanship and material, and improper installation. Upon notification of failure, correct complaint without cost to the owner.
- C. Parts Warranty: Standard warranty of manufacturer shall apply for replacement of parts after expiration of above period. Manufacturer shall furnish replacement parts to owner or to his service agency as directed. Furnish owner printed manufacturer's warranties complete with material included and expiration date upon completion of project.
- D. Service: During the warranty period,
- E. Software Warranty: Support for one-year

1.10 RECORD DRAWINGS

- A. Refer to Supplemental General Provisions and Special Provisions.
- B. Record of Job Progress: Keep an accurate dimensional record of the as-built locations of all work. This record shall be kept up-to-date on blue line prints as the job progresses and shall be available for inspection at all times.
- C. Include on As-Built Drawings:
 1. Position of all concealed or buried service conduits accurately dimensioned.
 2. Changes or of type and location of equipment.

1.11 OPERATING AND MAINTENANCE DATA

- A. Refer to Supplemental General Provisions and Special Provisions.

- B. General: Submit to the Owner's Representative prior to acceptance of the installation, complete and at one time. Partial or separate data will not be accepted. Data shall consist of the following minimum submissions.
 - 1. Manufacturer's Literature: Manufacturer's instruction for operation and maintenance of all major items such as communication and signal systems, and engine-generator set.
 - 2. Written Instructions: Typewritten instructions for operation and maintenance of those systems composed of Operation Instructions and Maintenance Instructions.
 - a. Operation Instructions: A brief description of the system indicating proper setting of controls.
 - b. Maintenance Instructions: A list of each item of equipment requiring inspection of lubrication describing the performance of such maintenance and the month of the year when each item of equipment should be inspected or serviced.
- C. Verbal Instructions: Upon completion of the Work, and at a time designated by the Owner's Representative, provide a competent engineer from each supplier of the aforesaid major items of equipment to instruct the Owner in the operation and maintenance of the equipment supplied.
- D. Binders: Three complete permanent sets of the above data with index in loose ring binders with permanent covers and permanent identification.

1.12 DEFINITIONS

- A. "Provide": To supply, install and connect complete and ready for safe and regular operation of particular work referred to unless specifically otherwise noted.
- B. "Install": To erect, mount and connect complete with related accessories.
- C. "Supply": To purchase, procure, acquire and deliver complete with related accessories.
- D. "Work": Labor, materials, equipment, apparatus, controls, accessories, and other items required for proper and complete installations.
- E. "Wiring": Raceway, fittings, wire, boxes and related items.
- F. "Concealed": Embedded in or below construction, installed in furred spaces, within partitions, above suspended ceilings, in trenches, in crawl spaces, or in enclosures.
- G. "Exposed" Not installed underground or "concealed" as defined above.
- H. "Indicated", "shown", or "noted": As indicated, shown or noted on drawings or specifications.

PART 2 - PRODUCTS

2.1 GENERAL

- A. In addition to material and equipment specified, also provide incidental materials required to effect complete installation. Such incidental materials include solders, tapes, caulking, mastics, gaskets, and similar items.
- B. Materials and equipment shall be uniform throughout the installation. Equipment of the same type shall be of same manufacturer.

PART 3 - EXECUTION

3.1 REVIEW OF CONSTRUCTION

- A. Work may be reviewed at any time by the Owner's Representative.
- B. Advise Owner's Representative that work is ready for review at following times:
 - 1. Prior to backfilling buried Work.
 - 2. Prior to concealment of work in walls and above ceilings.
 - 3. When requirements of Contract have been completed.
- C. Do not backfill or conceal Work without Owner's Representative's consent.
- D. Maintain on project site a set of specifications and drawings for use by the City Representative. The drawings shall be updated, on a weekly basis, to reflect the current "As Built" condition.

3.2 TESTS

- A. Provide tests specified in other sections. If requested, provide written verification that the tests have been successfully completed.

3.3 IDENTIFICATION

- A. Provide screwed on engraved nameplates of black lamicon with 3/4 inch high white lettering for all terminal cabinets, special panels, all relays, timers, terminal cabinets, and all special panels or consoles or consoles.
- B. Provide identifying numbers for each breaker in the service panel in a directory with plexiglass cover with typewritten identification of each circuit.
- C. Provide screwed on engraved nameplates of black and white lamicon, identifying function.

3.4 GENERAL INSTALLATION METHODS

- A. Carpentry, Cutting, Patching and Core Drilling:
 - 1. Provide carpentry, cutting, patching, and core drilling required for installation of material and equipment specified in this Division.

2. Do not cut, core or drill structural members without consent of the Owner's Representative.
- B. Seismic Mounting: All electrical material and equipment shall be installed with bracing, cabling, or anchoring to comply with the requirements of California Electrical Code.
- C. Waterproof Mounting:
1. Maintain waterproof integrity of penetration of materials intended to be waterproof. Provide flashing at exterior roof penetrations. Caulk penetrations floors watertight. Provide membrane clamps at penetrations of waterproof membranes.
 2. Provide weatherproof NEMA 3R enclosures for all equipment or devices mounted outside or otherwise exposed to the weather.
- D. Sleeves, Conduit Stubs and Slab Penetrations:
1. Provide sleeves flush with wall surfaces and of ample size for all conduits passing through exterior walls and at other locations shown on Drawings. Seal annular opening between sleeve and conduit with mastic.
 2. Seal openings around conduit penetrations thru slabs with mastic.
- E. Painting:
1. Provide moisture resistant paint for all exterior painting.
 2. Colors shall be a directed by Owner's Representative unless specified herein.
 3. Refer to individual Sections for equipment to be painted.
- F. Where not otherwise indicated, contract basis for equipment and material installation is published recommendations by manufacturer.

END OF SECTION 16010

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SECTION 16050

BASIC MATERIALS AND METHODS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections and Electrical General Requirements apply to this Section.

1.2 DESCRIPTION

- A. Work Included:

1. Conduit, conduit seals and fittings.
2. Wire, cable and connectors.
3. Pull and outlet boxes.
4. Concrete pull boxes.
5. Wiring devices and plates.
6. Individually mounted motor controllers.
7. Externally operated switches.
8. Fuses.
9. Molded Case Circuit breakers.
10. Time Switches.
11. Timer Switches.
12. Photo – Electric Relay.
13. Dimmers.
14. Supporting devices.
15. Excavation and backfill.

- 1.3 **REFERENCES AND STANDARDS:** Published specifications, standards, tests or recommended methods of trade, industry or governmental organizations apply to work of this Section where cited by abbreviations noted below.

- A. Insulated Cable Engineers Association (ICEA).
- B. National Electric Manufacturers Association (NEMA).

1.4 SUBMITTALS

- A. Make submittals in accordance with Section 21 of the Supplemental General Provisions.
- B. Manufacturer's literature describing each product.

PART 2 - PRODUCTS

2.1 CONDUIT, CONDUIT SEALS AND FITTINGS

- A. Rigid Steel Conduit: Full weight pipe with threaded joints, hot dipped, protected on inside by corrosion resistant coating and on outside by galvanizing, sherardizing or equivalent process; Triangle, Western, or equal.
- B. Intermediate Metal Conduit (IMC): Intermediate weight pipe with threaded joints, hot dipped, protected against corrosion by galvanizing or equivalent process; Allied Tube and Conduit Corporation, Triangle, Western, or equal.
- C. Rigid Aluminum Conduit: Full weight pipe, extruded from No. 6063 aluminum alloy, with threaded joints; Kaiser, Reynolds, Alcoa, or equal. Couplings and elbows shall be of same manufacturer as the conduit.
- D. Thinwall Conduit (EMT): Cold rolled lightweight steel tubing with inner protective enamel and galvanized on the outside; Triangle, Western, or equal.
- E. Flexible Metallic Conduit: Galvanized steel interlocking, single strip type; Triangle, Western, or equal.
- F. Liquid Tight Flexible Metallic Conduit: Galvanized conduit with polyvinyl cover; Anamet Inc. "Anaconda Sealtite type U.A.", Triangle, or equal.
- G. Plastic Conduit: Rigid PVC pipe conforming to industry standards.

For Direct Burial: Carlon type 40 heavy wall, Stauffer, or equal, 90 degrees Centigrade wire rated.
- H. Plastic Coated Rigid Conduit: Robroy Industries, Occidental Coating Co., or equal, steel conduit with factory applied minimum 0.020 inch PVC.
- I. Rigid Steel Conduit Wrap: 3M" Scotchwrap No. 51", Kendall " Polyken No. 920", Manville VID-20, or equal.
- J. Seals for Underground Conduits Entering the Building: Manville "Duxseal," Interchemical "Presstite 579.64," or equal.

2.2 WIRE, CABLE AND CONNECTORS

- A. Wire and Cable Manufacturers: General Electric, Rome Cable, General Cable, Anaconda, Paranite, Phelps Dodge, or equal.
- B. Provide 600 volt insulation for all secondary distribution and branch circuit wiring operating at 600 volts and less. This insulation shall have been applied to the cable not more than one year prior to its delivery to the project site.
- C. Wiring shall be Type THW/THHN. Branch circuit conductors installed in lighting fixture raceways shall be Type THHN or RHH. Conductors No. 8 AWG or larger shall

be stranded and No. 10 AWG or smaller shall be solid. All secondary conductors shall be copper, and conduit is sized on this basis.

D. Connectors:

1. Terminal Strip Connectors:

- a. No. 10 and No. 8 Wire: 3M "Scotchlok", Ideal, Burndy, or equal, lug.
- b. No. 6 Wire and Larger: Burndy "Quiklug" Type QA or QAA solderless lug, 3M, Ideal, or equal.

2. Circuit Wiring Connectors to Device Wire: 3M "Scotchlok", Ideal, Burndy, or equal, spring connectors and insulators.

3. Wire Joints:

- a. No. 6 Wire and Larger: Burndy Type QPR, 3M, Ideal, or equal.
- b. No. 8 Wire and Smaller: 3M "Scotchlok", Ideal, Burndy, or equal.
- c. Electrical Spring Connectors: Three part construction incorporating a non-restricted, zinc coated steel spring enclosed in a steel sheet with an outer jacket of vinyl plastic with a flexible insulating skirt.
- d. 150 Volts Splicing Kit for Moist Locations: 3M "Scotchcast", Hysol, or equal.

4. Vinyl Plastic Electrical Tape: 3M "No. 33+ Scotch Brand," Hysol, or equal.

2.3 PULL AND OUTLET BOXES

A. Outlet Boxes: Bowers, Raco, Steel City, or equal, galvanized, one piece, pressed steel, knockout type.

B. Weatherproof Boxes: Crouse-Hinds No. FS or FD, Appleton, Pyle-National, or equal, cast metal type with threaded hubs and neoprene cover gasket and weatherproof cover.

C. Special Pull Boxes: Keystone, National Electric, Square D, or equal, sized to suit application.

D. Exposed Switch and Receptacle Boxes: Crouse-Hinds FS or FD, Appleton, Pyle National, or equal, cast metal type with threaded hubs and sheet steel covers,

2.4 CONCRETE PULL BOXES: Christy, Brooks Products, Quickset, or equal, precast type with covers and extensions as required. Mark all covers as suits the application, e.g. Telephone, Communications, Traffic Signal, Lighting, etc.

2.5 WIRING DEVICES AND PLATES

A. Switches: Hubbell, Leviton, Pass and Seymour, Bryant, or equal, wall switches, AC rated, 120/277 volt, specification grade. Hubbell catalog number for each type is as follows:

<u>Type</u>	<u>Catalog No.</u>
-------------	--------------------

Single pole, 20 ampere 1221-I
Double pole, 20 ampere 1222-I
Three way, 20 ampere 1223-I
Four way, 20 ampere 1224-I

Plates for all other special devices shall be stainless steel, matching the foregoing.
Provide matching ganged plates for devices mounted side by side.

2.6 FUSES: 600 Volts and Below: Bussman, Gould Shawmut, or equal, Class J or Class L, current limiting type.

2.7 MOLDED CASE CIRCUIT BREAKERS

- A. General Electric, Cutler Hammer, Square D, or equal, quick-make and quick-break on manual operation, trip free, with inverse time characteristics secured through use of a bi-metallic tripping element supplemented by a magnetic trip.
- B. Provide "bolted" type breakers, one, two or three pole as indicated on Drawings. Multipole breakers shall be common trip so that a fault condition in any pole operates all other poles of the breaker simultaneously.
- C. Breaker short circuit ratings shall, as a minimum, equal to the available fault current at the line side of the breaker and the current published data of the specified manufacturers for the specified frame size and number of poles at the voltage to be applied.
- D. Circuit breakers for 120 volt fluorescent lighting circuits which do not have local switches shall be UL listed for this use and shall be marked "SWD".

2.8 PHOTO-ELECTRIC RELAY: Tork 2100 series, Fisher-Pierce, or equal, with adjustable "on" setting.

PART 3 - EXECUTION

3.1 INSTALLATION OF CONDUIT

- A. Arrangement:
 - 1. Conduit shall be installed for all conductors of all systems unless specifically noted otherwise on Drawings.
 - 2. Branch circuit conduits are diagrammatically indicated and shall be generally installed as indicated. Do not scale Drawings for exact location of conduits.

Install conduits to best suit field conditions; cooperate with other trades.
Install feeder conduits in the locations shown on Drawings.
 - 3. Install exposed conduits where permitted parallel to walls and ceilings or true with reference to the adjacent work.
 - 4. Install pull boxes at all locations specified and all other locations where required by reason of length or number of bends.
 - 5. Do not sleeve structural members without consent of Owner's Representative.

6. Support all conduit run above suspended ceilings from floor slab or structure above, independent of the ceiling suspension system. Locate conduits with sufficient clearance from the ceiling system to permit tiles to be removed and to allow full access to the space above.
 7. Seal underground conduits entering the to protect against entry of water, as follows:
 - a. Seal all underground power and telephone service conduits at the point where these conduits enter the main service panel or main terminal. Where these conduits originate from an exterior pad on grade or an underground pullbox, seal these conduits at this point also.
 - b. Install after conductors have been installed or in empty conduits, where conductors are future.
- B. Locations:
1. Within Building: Install only rigid steel conduit, intermediate metal conduit (IMC), or thinwall conduit (EMT), except flexible metallic conduit for limited use as permitted by these Specifications. Install thinwall conduit (EMT) only above or on ceilings, concealed within the partitions, or above eight feet when run exposed, where permitted, on walls.
 - a. Minimum size conduit run below grade, including runs within rock fill under buildings: $\frac{3}{4}$ INCH.
 2. In concrete Floor Slabs: Only rigid steel or PVC conduit, minimum size $\frac{3}{4}$ inch.
 3. Below Grade:
 - a. Rigid steel conduit, wrapped, except conduit runs within rock fill under building not in contact with earth need not be wrapped, or PVC plastic conduit for direct burial or concrete encasement.
 - b. Minimum size conduit run below grade, including runs within rock fill under buildings: $\frac{3}{4}$ inch.
 4. Exterior, Exposed: Rigid steel conduit only.
 5. All conduit risers from underground system, if extended from nonmetallic conduits, shall be continued with rigid steel conduit, IMC, or EMT at the point where the conduit leaves earth to its respective panel or terminal.
 6. Install flexible metallic conduit for final connections to motors and vibration equipment and in only such other locations where structural conditions make it impractical to use rigid steel conduit, IMC or EMT. Use liquid tight construction where conduit is exposed to weather or moisture.
- C. Fittings:
1. Connect all metallic conduits to outlet boxes, pull boxes or cabinets with locknuts and insulating bushings.

2. Running threads are prohibited. Use right and left couplings or conduit unions where necessary to connect conduits.
 3. Rigid Steel Conduit Fittings: Galvanized and threaded. Do not use threadless fittings.
 4. Intermediate Metal Conduit (IMC) Fittings: Same as for rigid steel conduit.
 5. Flexible Metallic Conduit: Clamp type connectors.
 6. Liquid Tight Flexible Metallic Conduit: Fittings for purpose intended by its use.
 7. Plastic Conduit: Plastic fittings joined by solvent weld cement. Transition from plastic to metallic conduit shall be with threaded connections.
- D. Rigid Steel Conduit Wrap: Spirally wrap conduit with 0.20 inch tape using one half lap for double thickness.

3.2 INSTALLATION OF WIRE AND CABLE

- A. General Installation Requirements:
1. Allow at least six inches of tails packed in outlet boxes after splices are made.
 2. Do not install any wire until all Work under other Divisions which might cause injury to this wire has been completed.
 3. Carefully pull all wires to insure that insulation is not damaged, particularly when installing new cable into existing conduit with existing conductors.
 4. Install a nylon cord in all unwired conduits with six inches of free ends secured in each box or terminal. In the City of Livermore, use mule tape when installing additional conductors through existing conduits.
 5. Identify all signal system conductors at terminations and in pull boxes with nonmetallic tags or wire markers.
 6. Connect all multi-wire branch circuits installed with a common neutral conductor to adjacent circuit breakers in each panelboard.
- B. Connections:
1. Install connections to terminal strips as follows:
 - a. No. 12 Wire: Form wire around binding post or screw.
 - b. No. 10 and 8 Wire: Lugs as specified herein.
 - c. No. 6 Wire and Larger: Solderless lugs as specified herein.
 2. Install circuit wiring connections to device wire with connectors and insulators as specified herein.
 3. Install Joints in Wire as Follows:
 - a. No. 6 Wire and Larger: Lugs as specified herein.

- b. No. 8 Wire and Smaller: Pressure type solderless spring connectors as specified herein.
 - c. Make joints in moist location at 150 volts or less with sealing packs as specified herein and encapsulate those over 150 volts with splicing kits as specified herein.
 - d. Install all joints mechanically and electrically secure and insulate with vinyl plastic electric tape.
 - e. Label all new conductors and cables installed with manufacturer recommended labels.
- C. Minimum wire size for all circuits at 120 volt potential or above shall be No. 12 AWG.
- D. Color Coding:
- 1. Color code insulation on secondary conductors as follows:

<u>Voltage</u>	<u>Phase A</u>	<u>Phase B</u>	<u>Phase C</u>	<u>Neutral</u>
208/120	Black	Red	Blue	White
 - 2. Equipment grounding conductor shall have green insulation.
 - 3. Obtain approval of color coding from inspecting authority.
- E. Install and test all connectors on new agency-furnished cable that is installed by the Contractor. Contractor shall be responsible for the integrity of all connections that are performed by the Contractor.

3.3 INSTALLATION OF CONCRETE PULL BOXES:

- A. Provide extensions and covers as required to install flush with grade or pavement.

3.4 EXCAVATION AND BACKFILLING

- A. Safety Requirements:
 - 1. Do all shoring and pumping necessary to protect excavation and safety of workers.
 - 2. Comply with all safety requirements of all applicable authorities.
 - 3. Protect excavations with barricades as required by applicable safety regulations.
- B. Excavation:
 - 1. Perform trenching, shoring and backfilling required for proper laying of conduit.
 - 2. Grade bottom of trenches so that conduits will drain to pull boxes with a fall of not less than three inches per 100 feet.

3. Provide bearing for entire length of lower 1/3 of conduits.
 4. Excavate rock to one foot below bottom of conduit and backfill with sand and pea gravel, well tamped.
 5. Trench at 12 inches wider than greatest diameter of conduit or group of conduits. Provide and install appropriate chairs for conduits or group of conduits to bottom of trench to insure adequate concrete encasement where applicable.
 6. Coordinate trenching with foundation work. Provide proper clearances from grade beams.
- C. Backfilling:
1. Backfill with tamped sand or gravel, free of rocks and all foreign materials.
 2. Cover no work until installation has been reviewed by the Owner's Representative.
 3. Provide 24 inches minimum cover from top of conduits to finished grade.
 4. Remove surplus material as directed.
 5. Restore all paved surface and curbs to their original condition.

3.5 TESTS

- A. Insulation Resistance: Test all feeders and 50 percent of branch circuits under 600 volts for insulation resistance voltage of 1000 volts D.C. Repair or replace all conductors indicating less than 10 megohms resistance to ground.

3.6 PAINTING

- A. Finish paint all exposed equipment, conduit and supports, wireways and gutters to match adjacent surfaces if this painting is not specified in Section 09900, Painting.

END OF SECTION 16050

SECTION 16600

TRAFFIC SIGNAL AND LIGHTING

PART 1 - GENERAL

1.1 DESCRIPTION

Traffic signal work is to be performed at the locations shown on the plans.

1.2 WARRANTIES

Contractor's workmanship, furnished material and equipment warranties against defect shall be in conformance of Section 86-1.05, "Warranties, Guaranties and Instruction Sheets" of the Standard Specifications.

The five- (5) year warranty shall apply to all traffic control equipment listed below:

- All new traffic controller license key(except for Caltrans firmware)

The respective manufacturers shall not be responsible for damage caused by negligence by others, acts of God, or use of equipment in a manner not originally intended. To obtain service under this warranty the City will deliver the control equipment to the manufacturer's designated address for repair. The manufacturer will repair and return the control equipment to the City within thirty (30) calendar days.

1.3 PULL BOXES

Pull boxes shall be installed or replaced as shown on the project plans. Grout shall not be placed in the bottom of new or existing pull boxes except for communication conduit pull boxes as shown on the plans.

Where the sump of an existing pull box is disturbed by the Contractor's operations, the sump shall be reconstructed.

No. 3-1/2 pull boxes shall not be used. Contractor shall use a minimum of No. 5 or larger pull boxes unless otherwise indicated on plans.

1.4 CONDUIT

All conduits entering concrete foundations shall be galvanized rigid steel covered with pipe wrap. All other conduits shall be PVC Schedule 40.

When conduit is placed in a trench (not in pavement or under portland cement concrete sidewalk), after the bedding material is placed and the conduit is installed, the trench shall be backfilled with commercial quality concrete, containing not less than 425 lb of portland cement per cubic yard, to not less than 4 inches above the conduit before additional backfill material is placed.

Conduit runs shown on the plans to be located behind curbs may be installed in the street, within 3 feet of, and parallel with the face of the curb, by the "Trenching in Pavement Method" in

conformance with the provisions in Section 86-2.05C, "Installation," of the Standard Specifications. Pull boxes shall be located behind the curb or at the locations shown on the plans.

After conductors have been installed, the ends of conduits terminating in pull boxes, service equipment enclosures, and controller cabinets shall be sealed with an approved type of sealing compound.

At those locations where conduit is required to be installed under pavement and existing underground facilities require special precautions in conformance with the provisions in "Obstructions" of these special provisions, conduit shall be placed by the "Trenching in Pavement Method" in conformance with the provisions in Section 86-2.05C, "Installation," of the Standard Specifications.

At other locations where conduit is required to be installed under pavement and if a delay to vehicles will not exceed 5 minutes, conduit may be installed by the "Trenching in Pavement Method."

Where 6 or more conduits of 3" enter a No. 6 pull box, the conduits shall enter at an angle not greater than 45-degrees from the horizontal.

Conduits shall have at least 30" of cover from finished grade in all areas. All conduits shall have a mule tape installed, and a continuous No. 6 copper wire for grounding and tracing of conduits.

All conduits shall be sealed with Duct-Seal after wires are installed to prevent moisture and rodents from entering the conduits. All conduit ends within pull boxes shall have bell ends installed.

1.5 WIRE AND WIRING

GPS/Radio detector cable shall be furnished by the agency and shall be installed by the contractor without any splices between the detector and the controller cabinet.

The GPS/Radio detector cable shall meet the requirements of IPCEA-S-61-402/NEMA WC 5, Section 7.4, 600-V (ac) control cable, 75°C, Type B, and the following:

1. The cable shall contain 3 conductors, each of which shall be No. 20 (7 x 28) stranded, tinned copper with low-density polyethylene insulation. Minimum average insulation thickness shall be 0.63-mm. Insulation of individual conductors shall be color coded: 1-yellow, 1-blue, 1-orange.
2. The shield shall be either tinned copper braid or aluminized polyester film with a nominal 20 percent overlap. Where film is used, a No. 20 (7 x 28) stranded, tinned, bare drain wire shall be placed between the insulated conductors and the shield and in contact with the conductive surface of the shield.
3. The jacket shall be black polyvinyl chloride with minimum ratings of 600 V (ac) and 80°C and a minimum average thickness of 1.1 mm. The jacket shall be marked as required by IPCEA/NEMA.
4. The finished outside diameter of the cable shall not exceed 8.9 mm.
5. The capacitance, as measured between any conductor and the other conductors and the shield, shall not exceed 157 pf per meter at 1000 Hz.

6. The cable run between each detector and the controller cabinet shall be continuous without splices or shall be spliced only as directed by the detector manufacturer.

Signal wires may be spliced at location indicated on the plans or by the approval of the local agency engineer. Splices shall be insulated by "Method B"

The minimum insulation thickness, at any point, for Type USE, RHH or RHW wire shall be 1.0 mm for conductor sizes No. 14 to No. 10, inclusive, and 1.3 mm for No. 8 to No. 2, inclusive. The minimum insulation thickness, at any point, for Type THW and TW wires shall be 0.69 mm for conductor sizes No. 14 to No. 10, inclusive, 1.02 mm for No. 8, and 1.37 mm for No. 6 to No. 2, inclusive.

Bonding and grounding shall conform to the provisions in Section 86-2.10, "Bonding and Grounding," of the Standard Specifications and these special provisions.

Bonding jumpers in standards with handholes and traffic pull box lid covers shall be attached by a UL listed lug using 4.5-mm diameter or larger brass or bronze bolts and shall run to the conduit or bonding wire in the adjacent pull box. The grounding jumper shall be visible after the standard has been installed and the mortar pad and cap have been placed on the foundation.

Standards without handholes shall have bonding accomplished by jumpers attached to UL listed ground clamps on each anchor bolt.

For slip base standards or slip base inserts, bonding shall be accomplished by jumpers attached to UL listed ground clamps on each anchor bolt, or a UL listed lug attached to the bottom slip base plate with a 4.5-mm diameter or larger brass or bronze bolt.

Equipment bonding and grounding conductors are required in conduits, except when the conduits contain combinations of loop lead-in cable, fiber optic cable, or signal interconnect cable. A No. 8 minimum, bare copper wire shall run continuously in circuits, except for series lighting circuits, where No. 6 bare copper wire shall run continuously. The bonding wire size shall be increased to match the circuit breaker size in conformance with the Code, or shall be as shown on the plans. Conduits to be installed for future conductors, may omit the copper wire.

Bonding of metallic conduits in metal pull boxes shall be by means of bonding bushings and bonding jumpers connected to the bonding wire running in the conduit system.

1.6 SIGNAL HEADS

All traffic signal heads shall be furnished with red, yellow, and green LED's. The Contractor shall furnish all indications for traffic signal units.

The traffic signal housing doors, visors and backplate shall all be painted black. The traffic signal housing shall be painted olive green. No plastic traffic signal heads will be allowed.

1.8 REMOVING AND SALVAGING ELECTRICAL EQUIPMENT

The Contractor shall provide equipment, as necessary, to safely unload and stockpile the material. All salvaged controller cabinets and electrical equipment shall be securely fastened or bolted to wooden pallets. A minimum of two working days notice shall be given prior to delivery.

The Contractor shall remove and salvage existing poles as shown on the plans. The top 6-inch of the foundation shall be removed and the existing concrete sidewalk shall be restored to its original conditions. Any curb, gutter or sidewalk damaged as a result of Contractor's operation

shall be restored to its original conditions.

Salvaged electrical materials shall be delivered to local agency corporation yards. Contractor shall provide a minimum of 3 working days notice prior to delivery. The Contractor shall provide the equipment, as necessary, to safely unload and stockpile the material.

- City of Dublin: 951 Turner Court, Hayward, CA 94545
- City of Pleasanton: 3333 Busch Rd, Pleasanton, CA 94566
- City of Livermore: 3500 Robertson Park Rd, Livermore, CA 94550

1.9 SIGNAL SHUT-DOWN

All construction activity that requires signal shut-down, such as replacement of the Controller Cabinet Assembly, re-wiring of the traffic signal, etc, shall be planned with 72-hours advance notice and approval by the local agency. Contractor shall submit traffic control plan for local agency review and approval before scheduling signal shut-down.

Traffic signal system shutdowns shall be limited to periods between the hours of 9:00 A.M. and 2:00 P.M.

1.10 CONTROLLER ASSEMBLIES

The Contractor shall upgrade the existing traffic signal controller license key to include TSP operations at the intersections shown on the project plans. Traffic signal controllers shall include license key compatible with existing City of Dublin, Livermore and Pleasanton central traffic signal control systems. All upgrades shall include any and all applicable licenses required by the manufacturer.

1.19 TRAFFIC CONTROLLER TSP LICENSE KEY UPGRADES

The Contractor shall *furnish and install* traffic controller TSP license key upgrades including all modules, licenses and fees at local traffic signal controllers in the Cities of Dublin, Livermore, and Pleasanton shown on the project plans. The upgrade shall enable the traffic signal controllers to recognize and process TSP calls received through the new Opticom system. The traffic signal controller shall retain all existing EVP features and functions at the local traffic controllers includes recognition and processing of EVP calls.

Currently the three agencies maintain Trafficware Model 2070 and NEMA controllers along the project corridor for the cities of Dublin, Pleasanton and Livermore. The Contractor shall upgrade the existing license key to allow the TSP operation as described above at the specific locations identified in the plans.

1.20 TSP FIELD EQUIPMENT

The TSP system shall provide the following functionalities:

1. The TSP shall work with existing or new Opticom Low Priority System installed on traffic signal standards as shown on the plans.
2. The TSP shall grant priority based on a user defined schedule or headway based system, The system shall request a low priority call if the bus is behind a user defined schedule to provide priority for the Rapid buses, independent of vehicle direction. The

schedule or headway parameter shall be user settable, by day of week and time of day. A time of day and day of week look up table shall be provided.

3. The TSP shall provide an early green or extension of green, which would be equivalent to 10% of the coordinated cycle length. The phase duration for all subsequent phases, after the early-green or extension of green, shall be reduced equally after the priority call. There shall be no back-to-back priority activations.
4. The TSP shall be non-locking, i.e. if a bus has departed the intersection, the priority request will be dropped.
5. The TSP lane shall not truncate pedestrian walk or don't walk durations if activated. If the intersection is equipped with countdown timers, the countdown timers shall be blank in the absence of a pedestrian call.
6. The TSP shall meet all applicable MUTCD requirements.
7. The Contractor shall configure and calibrate the Opticom GPS units to allow recognition of the transit priority call within a distance of, or travel time to, the stop bar as directed by City (near-side stops will be case by case). The TSP recognition shall end 50' prior to the stop bar.
8. The Contractor shall integrate and test the system to ensure all system elements are functional and consistent with the goals of the project.
9. The Contractor shall furnish and install any other equipment and software necessary for a fully functional TSP/QJ system.

1. General

GPS receiver and antenna shall obtain the intersection position from the GPS satellite system operated by the DoD. The time information from the GPS satellites shall be used to synchronize the frequency hopping of the 2.4 GHz radio and to time stamp the activity log. The GPS receiver and the GPS antenna shall reside inside of the radio/GPS module.

A 2.4 GHz spread spectrum/frequency hopping radio shall provide the communications from the intersection to the vehicle as well as from intersection to intersection. The radio shall have a maximum transmit power of not more than 1 watt. The radio shall have an unobstructed range of at least 2,500 feet (762 m). The radio will meet FCC Part 15 rules. The radio and the radio antenna will reside inside of the radio/GPS module.

The radio/GPS module shall be housed in a white, impact resistant polycarbonate housing that will include a water resistant wire entry point. It will contain a water resistant access cover to facilitate cable termination.

The radio/GPS module shall be mounted on signal poles and mast arms as shown in project plans. Mounting hardware shall be per radio/GPS module manufacturer's recommendations.

The radio/GPS module shall communicate to the phase selector via a radio/GPS cable up to a maximum of 250 feet (76 m) in length.

The radio/GPS module shall have dimensions of no greater than 4.5 inches (11.4 cm) wide by 2.75 inches (7.0 cm) high by 8.0 inches (20.3 cm) long.

2. GPS/Radio Cable

The radio/GPS cable will deliver sufficient power from the phase selector to the radio/GPS module and will deliver the necessary quality signal from the radio/GPS module to the phase selector over a maximum distance of 250 feet (76 m). The cable shall not have any intermediate splices. Use of coaxial cable is not permitted for this cable.

- a. Conduit and mast arm.
- b. Exposed overhead (supported by messenger wire).

The outside diameter of the cable will not exceed 0.4 inches (10.16 mm).

The insulation rating of the cable will be 300 volts minimum.

The temperature rating of the detector cable will be -40°F (-40°C) to +194°F (+90°C).

The conductors will be AWG #20 (7x28) stranded and individually tinned. The cable will be shielded and have a drain wire to provide signal integrity and transient protection.

The radio/GPS cable wires shall be color coded as follows:

- a. Yellow/Yellow-Black dot for Radio transmit.
- b. Blue/Blue-White dot for Radio receive.
- c. Orange/Orange-Green dot for Radio clock.
- d. Brown/Brown-White dot for GPS power and common.
- e. Violet/Violet-White dot for Radio power and common.
- f. Bare for shield drain.

When the aluminum enclosure version of the radio/GPS module is used, a radio/GPS cable assembly using the above cable with a 15-pin connector that will mate with the connector on the radio/GPS module will be used.

3. Discriminator Module/ Multimode Phase Selector

The multimode phase selector shall recognize inputs from both infrared and Radio/GPS activation methods at the intersection and supply coordinated inputs to the controller.

Each discriminator module shall be designed to be compatible and usable with the following controllers and firmware/license key:

- Model 2070L controller unit running City-approved license key for installations in the City of Livermore and City of Dublin
- Model 900 controller unit running City-approved license key for installations in the City of Dublin and City of Pleasanton

All discriminator modules shall conform to the requirements of Chapter I of the State of California, Department of Transportation "Traffic Signal Control Equipment Specifications".

Each discriminator module shall be a plug-in, four channel, multiple-priority, multi-modal device intended to be installed directly into a card rack located within the controller cabinet. The multi-mode phase selector shall be capable of using existing infrared or Radio/GPS system card racks

Each discriminator module, when used with its associated detectors, shall be capable of:

- a. Receiving Class I signals at a range of up to 1000' (300 m) and Class II signals at a range of up to 1800' (550 m).
- b. Decoding the signals, on the basis of frequency, at 9.639 Hz \pm 0.119 Hz for Class I signals and 14.035 Hz \pm 0.255 Hz for Class II signals.
- c. Establishing the validity of received signals on the basis of frequency and length of time received. A signal shall be considered valid only when received for more than 0.50 second. No combination of Class I signals shall be recognized as a Class II signal regardless of the number of signals being received, up to a maximum of ten signals. Once a valid signal has been recognized its effect shall be held by the module in the event of temporary loss of the signal for a period adjustable from 4.5 seconds to 11 seconds in at least 2 steps at 5 seconds \pm 0.5 second and 10 seconds \pm 0.5 second.
- d. Providing an output for each channel that will result in a "low" or grounded condition of the appropriate input of a signal controller unit. For Class I signals the output shall be a 6.25 Hz \pm 0.1 percent, rectangular waveform with a 50 percent duty cycle. For Class II signals the output shall be steady.
- e. Being assigned up to 25 different radio channels.

Each discriminator module shall receive electric power from the controller cabinet at either 24 VDC or 120 VAC.

Each channel together with its associated detectors shall draw not more than 100 mA at 24 VDC nor more than 100 mA at 120 VAC. Electric power, one detector input for each channel and one output for each channel, shall terminate at the printed circuit board edge connector pins listed below:

BOARD EDGE CONNECTOR PIN ASSIGNMENT

A	DC ground		
B	+24 VDC	P	(NC)
C	(NC)		
D	Detector input, Channel A	R	(NC)
E	+24VDC to detectors	S	(NC)
F	Channel A output (C)	T	(NC)
		U	(NC)
H	Channel A output (E)	V	(NC)
J	Detector input, Channel B	W	Channel B Output (C)
K	DC Ground to detectors	X	Channel B Output (E)
L	Chassis ground	Y	(NC)
M	AC-	Z	(NC)
N	AC+		

(C) Collector, Slotted for Keying

(E) Emitter, Slotted for Keying

(NC) Not connected, cannot be used by manufacturer for any purpose.

Two auxiliary inputs for each channel shall enter each module through the front panel connector. Pin assignment for the connector shall be as follows:

- a. Auxiliary detector 1 input, Channel A
- b. Auxiliary detector 2 input, Channel A
- c. Auxiliary detector 1 input, Channel B
- d. Auxiliary detector 2 input, Channel B

Each channel output shall be an optically isolated NPN open collector transistor capable of sinking 50 mA at 30 V and shall be compatible with the Model 2070L controller unit inputs.

Each discriminator module shall be provided with means of preventing transients received by the detector from affecting the Model 2070L controller assembly.

Each discriminator module shall have a single connector board and shall occupy one slot width of the input file. The front panel of each module shall have a handle to facilitate withdrawal and the following controls and indicators for each channel:

- e. Three separate range adjustments each for both Class I and Class II signals.
- f. A 3-position, center-off, momentary contact switch, one position (down) labeled for test operation of Class I signals, and one position (up) labeled for test operation of Class II signals.
- g. A "signal" indication and a "call" indication each for Class I and for Class II signals. The "signal" indication denotes that a signal above the threshold level has been received. A "call" indication denotes that a steady, validly coded signal has been received. These two indications may be accomplished with a single indication lamp; "signal" being denoted by a flashing indication and "call" with a steady indication.

- h. In addition, the front panel shall be provided with a single circular, bayonet-captured, multi-pin connector for two auxiliary detector inputs for each channel. Connector shall be a mechanical configuration equivalent to a MIL C-26482 with 10 4 insert arrangement, such as Burndy Trim Trio Bantamate Series, consisting of:
- 1) Wall mounting receptacle, G0B10-4PNE with SM20M-1S6 gold plated pins.
 - 2) Plug, G6L10-4SNE with SC20M-1S6 gold plated sockets, cable clamp and strain relief that shall provide for a right angle turn within 2.56" (65 mm) maximum from the front panel surface of the discriminator module.

4. Auxiliary Interface Panel

The auxiliary panel shall provide additional preemption outputs if needed. It shall also provide a connection point for the phase selector to monitor the status of the intersection's green lights (green sense). The panel shall provide an additional RS-232 communication port. The auxiliary interface panel shall contain outputs to drive confirmation lights and time sync output.

5. Cabinet Wiring

The Model 332 cabinet has provisions for connections between the optical detectors, the discriminator module and the controller unit.

Wiring for a Model 332 cabinet shall conform to the following:

- a. Slots 12 and 13 of input file "J" have each been wired to accept a 2-channel module.
- b. Field wiring for the primary detectors, except 24-VDC power, shall terminate on either terminal board TB 9 in the controller cabinet or on the rear of input file "J", depending on cabinet configuration. Where TB 9 is used position assignments shall be as follows:

Position	Assignment
4	Channel A detector input, 1st module (Slot J-12)
5	Channel B detector input, 1st module Slot J-12)
7	Channel A detector input, 2nd module (Slot J-13)
8	Channel B detector input, 2nd module (Slot J-13)

The 24 VDC cabinet power will be available at Position 1 of terminal board TB 1 in the controller cabinet.

All field wiring for the auxiliary detectors shall terminate on terminal board TB O in the controller cabinet. Position assignments are as follows:

FOR MODULE 1 (J-12)		FOR MODULE 2 (J-13)	
Position	Assignment	Position	Assignment
1	+24VDC from (J-12E)	7	+24VDC from (J-13E)
2	Detector ground From (J-12K)	8	Detector ground from (J-13K)
3	Channel A auxiliary detector input 1	9	Channel A auxiliary detector input 1
4	Channel A auxiliary detector input 2	10	Channel A auxiliary detector input 2
5	Channel B auxiliary detector input 1	11	Channel B auxiliary detector input 1
6	Channel B auxiliary detector input 2	12	Channel B auxiliary detector input 2

6. Interface Software

Interface software shall be provided to manage the multimode phase selector through a laptop while on-site at the intersection.

The interface software shall be provided on CD-ROM or via download from the vendor's website.

The interface software shall be supported on Windows™ XP and Windows™ 7 operating systems.

The vendor shall provide minimum hardware configuration information for computer(s)

The interface software shall allow the user to:

1. View and update all programmable configuration parameters of the multimode phase selector.
2. Provide intersection name and approach names for each of the four channels and store these as part of the multimode phase selector configuration.
3. View and update valid and blocked vehicle codes for the multimode phase selector.
4. Create preemption zones directly on a GIS map. Provided the map data is complete, it shall not be necessary to drive a vehicle to create the preemption zones. In areas where map data is incomplete or incorrect, it shall be possible to record points to be used as a reference to create the preemption zones.
5. Save the configuration from the multimode phase selector to a file.
6. Restore the configuration for a multimode phase selector from a saved configuration file.
7. Print the multimode phase selector configuration.
8. View the activity log from the multimode phase selector.
9. To save the activity log to a file.
10. Print the activity log.
11. Update firmware for all upgradable modules of the multimode phase selector.

The interface software shall display current status of all vehicles within range of the multimode phase selector, both in table format and displayed on a GIS map (GPS Vehicles only). The following details shall be tracked (Fields will vary by vehicle type):

1. The approach channel
2. Vehicle code
3. Priority level

4. Preempt / priority status
5. No preempt cause
6. Turn signal status
7. Signal strength
8. Unit ID
9. Radio channel
10. ETA, distance, heading and velocity of vehicles in approach corridor
11. Source of the call: vehicle or intersection
12. Green phase monitoring with information on the current greens
13. Active preemption / priority output
14. Noise levels
15. Intensity
16. Primary or Auxiliary detector

The interface software shall display current status of all other intersections within radio range of the multimode phase selector. The following details shall be tracked:

1. Name
2. Radio channel
3. Signal strength
4. Number of vehicle tracked
5. Number of satellites heard
6. Fix type
7. Horizontal and position dilution
8. Unit ID

The interface software shall display current status of visible GPS satellites. The following details shall be tracked:

1. Intersection latitude and longitude
2. Fix type
3. Horizontal and position dilution
4. Satellite number, elevation, and azimuth

7. Installation

The Contractor shall install the following agency-furnished items at the project intersections as shown on the plans:

- GPS/Radio detector units including mounting hardware and brackets (GTT Model 3100);
- TSP phase selector cards (GTT Model 764);
- System chassis/Card rack (GTT Model 760);

- Auxiliary interface panel (GTT Model 768, including green sense harness);
- Daughterboard (GTT Model 755);
- GPS/Radio cable

Contractor shall coordinate with the equipment manufacturer of the agency-furnished items for the manufacturer to program and calibrate the TSP detectors and phase selector units. The Contractor shall follow step-by-step instructions provided by the equipment manufacturer and supplier to provide a fully functional installation. This includes both TSP and Queue Jump operations at the project intersections.

8. System Operation

The Contractor shall demonstrate that all of the components of each system are compatible and will perform satisfactorily as a system. Satisfactory performance shall be determined using the following test procedure during the functional test period:

Each system to be used for testing shall consist of an optical and GPS emitter assembly, an optical and GPS detector, detector cable and a discriminator module.

The discriminator modules shall be installed in the proper input file slot of the 332 controller cabinet assembly.

Two tests shall be conducted for each the optical and GPS detector assemblies; one using a Class I signal emitter and a distance of 1000' (300 m) between the emitter and the detector, the other using a Class II signal emitter and a distance of 1800' (550 m) between the emitter and the detector. All range adjustments on the module shall be set to "Maximum" for each test.

Each above test shall be conducted for a period of one hour, during which the emitter shall be operated for 30 cycles, each consisting of a one minute "on" interval and a one minute "off" interval. During the total test period (1) the emitter signal shall cause the proper response from the Model 2070L controller unit during each "on" interval and (2) there shall be no improper operation of either the Model 2070L controller unit or the monitor during each "off" interval.

The Contractor shall furnish and install TSP monitoring functionality on each local agency Naztec servers to allow for real-time viewing of TSP operations at intersections. This sever installation shall be considered included in the price paid for TSP/QJ license key installation and no separate payment shall be made therefor.

1.21 CONTROLLER PROGRAMMING

The Contractor shall coordinate with the equipment manufacturer, the respective agencies and the ODR to program the local traffic signal controllers at the project intersections in the cities of Dublin, Livermore, and Pleasanton for TSP and QJ operations as indicated on the project plans. Controller programming shall be performed by others and will include, but not be limited to the following items as appropriate:

- Insertion of new QJ phases
- Assignment of low-priority calls to appropriate TSP and QJ channel.
- 10-minute headway lock-out time for TSP calls
- Lock-out of TSP vehicles

- Timing parameters

The QJ system shall activate a green phase by providing a right-overlap, exclusive phase, to allow queue clearance and a transit phase. The Overlap Phase shall be user settable. The Contractor shall contract with traffic signal controller vendor to program the existing firmware to allow the QJ operation.

The following table summarizes the responsibility for controller, TSP and signal timing among the various stakeholders.

1.22 TESTING

Prior to conditional acceptance, Contractor shall perform pre-approved tests on the TSP and QJ, to demonstrate the end-to-end functionality of the system—from detecting RAPID bus to receipt of emailed report in LAVTA email account. This testing shall be done in addition to specific tests for individual pieces of equipment.

The Contractor shall adhere to the testing requirements for this project and shall allow for 30 days between substantial completion and entrance into the 12-month operational support period which exceeds and includes the warranties provided.

Vendor representation shall be provided for all system equipment testing.

ODR shall be present for all field tests.

1. Local Intersection Installation Field Test. TSP and QJ operations shall tested at each project intersection. Intersection test shall consist of properly detecting RAPID bus within the detection zone of each approach to the intersection, or within the agency-defined arrival time to the intersection on each approach (unless otherwise specified by Engineer for locations with near-side bus stops) and granting TSP/ QJ response subject to pre-defined parameters (vehicle privileges and time since last TSP activation). ODR shall be present at testing to review performance of signal timing parameters. The ODR or agency representative shall implement signal timing changes as needed. The Contractor shall be present to troubleshoot any issues encountered during the testing as it relates to the installation and connection of the TSP field equipment. The manufacturer's representative shall be present to modify or troubleshoot the TSP field equipment parameters and implement/configure any changes to the parameters.
2. Integration and Final Testing. Upon completion of intersection installations including the local intersection installation field testing, the Contractor shall conduct field integration testing. Contractor shall propose three (3) adjacent intersections per local agency (e.g., Dublin, Livermore, Pleasanton) to be used for the tests. There shall be a total of none (9) intersections included in the test – three within each agency.

Upon ODR approval of intersections, the Contractor shall demonstrate that each local agency report captures 95% of TSP calls of each test intersection for each day over a continuous fourteen-day period. This will be determined by comparing the daily report quantity of detection calls of each intersection with daily quantity of detection logs from the phase selector at that intersection. Contractor shall coordinate with the equipment vendor for downloading and processing data from the phase selectors. Should the accuracy of the report be less than 95% for any intersection, the test shall be restarted and repeated. The tests shall be repeated until the accuracy benchmarks listed above are met.

The Contractor shall review 'as constructed' drawings and provide all that is necessary to operate and maintain the TSP and queue jumpers and its components for the period during construction and for 12 months thereafter.

The Contractor shall adhere to the testing requirements for this project and shall allow for 30 days between substantial completion and entrance into the 12-month operational support period which exceeds and includes the warranties provided.

1.23 DOCUMENTATION

The Contractor shall coordinate with the manufacturer's representative to provide the initial configuration and functional block diagram and shall describe both hardware and software settings.

The following documentation shall be provided by the manufacturer or manufacturer's representative:

- Five (5) service manuals that include a description of the TSP field equipment, description of its operation, and maintenance and troubleshooting information.
- One (1) electronic version on CD or other portable memory device suitable and available for unlimited distribution by the agency and the local cities.

END OF SECTION 16600

BID FORMS

The Contractor shall furnish as part of this bid all of the information requested on the form. Failure to provide a price quotation on all items shown on the bid Form may result in rejection of the bid.

Pursuant to the Notice Inviting Bids, the undersigned Bidder submits a bid on the attached bid Forms and binds itself on award by the Livermore Amador Valley Transit Authority (LAVTA) under this bid to execute a Contract in accordance with its bid, the Contract Documents attached hereto and entitled "LAVTA Transit Signal Upgrade and Expansion Project, [2019-04]", and to furnish the Bonds required by the Contract Documents. The components of the Contract Documents, namely, Notice Inviting Sealed Bids, General Conditions and Instructions for Bidders, Special Provisions, Technical Specifications, Bid Forms; Addenda, if any, and drawings, are made a part of this bid and all provisions contained therein are hereby accepted and all representations and warranties required thereby are hereby affirmed.

The bid prices below **exclude** any and all Federal taxes, and **exclude** California State sales tax or use taxes for Alameda County and applicable import duties, if any.

In addition, the bid prices below include all costs for labor, materials, tolls, equipment, services, warranty, bonding, insurance, shipment, delivery, overhead, profit and all other costs necessary to perform the work in accordance with the Contract Specifications. The bidder shall itemize the lump sum price to perform this work on this Bid Form Page B-3 and enter the Grand Total Bid Price at the bottom of Page B-1 below.

COMPANY NAME: _____

having examined the Contract Documents referred to hereinabove and all conditions affecting the work, hereby proposes and agrees to furnish all labor, materials, equipment and other services, including all costs and expenses associated herewith, which are necessary for completion of the work for:

**LAVTA Transit Signal Priority Upgrade and Expansion Project
2019-04**

The undersigned Bidder acknowledges receipt, understanding and full consideration of the following addenda to the Contract Documents:

ADDENDA NOs: (if none, so state): _____

GRAND TOTAL BID PRICE

Our price to perform the work required by this IFB is the lump sum Grand Total Bid Price below:

_____ dollars, \$_____.

ACKNOWLEDGEMENT OF TERMS AND CONDITIONS

Signing in the space below certifies that the subject Bidder has read, understood and will comply with all terms and conditions set forth in the General Conditions and Instructions for Bidders, Special Provisions and Technical Specifications of this Contract and that the signator(s) are authorized to execute and bind the Company to all terms and conditions of the Contract Documents

Name of Business Organization

Street Address

City

State

Zip Code

Type of Organization (Sole Owner, Partnership, Corporation*, etc.)

Signature

Title

Printed Name

Date

Signature*

Title

Printed Name

Date

(____) _____
Area Code Telephone Number

(____) _____
Area Code Facsimile Number

Contractor's License No.

License Classification

Expiration Date

Contractor's DIR Registration No.

Expiration Date

Are you registered with the California Board of Equalization? **YES*** ____ **No** ____

*If yes, please attach a copy of your registration.

***NOTE: If the Contractor is a corporation, two corporate officers must sign on behalf of the corporation as follows: (1) Chairman of the Board, President or Vice President; and, (2) the Secretary, Assistant Secretary, Chief Financial Officer, Assistant CFO, Treasurer or Assistant Treasurer. In the alternative, this Agreement may be executed by a single officer or a person other than an officer provided that evidence satisfactory to the District is provided demonstrating that such individual is authorized to bind the corporation (e.g. a copy of a certified resolution from the corporation's board or a copy of the corporation's by-laws)**

Item	Sect. No.	Description	Unit	Unit Price	Quantity	Amount
1.	01505	Mobilization	LS		1	
2.	01570	Traffic Control System	LS		1	
3.	16050	Install Agency-Furnished TSP Field Equipment (City of Dublin)	LS		1	
4.	16050	Install Agency-Furnished TSP Field Equipment (City of Livermore)	LS		1	
5.	16050	Install Agency-Furnished TSP Field Equipment (City of Pleasanton)	LS		1	
6.	16600	Furnish and Install TSP License Key in Existing Controller	EA		21	
GRAND TOTAL BID PRICE						

NOTE: This contract will be awarded on the basis of the Grand Total Bid Price as shown on Page B-1.

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BIDDER'S BOND

KNOW ALL PERSONS BY THESE PRESENTS:

That _____, as BIDDER, and _____, as Surety, are held and firmly bound unto the Livermore Amador Valley Transit Authority, ("AUTHORITY"), in the sum of \$ _____, **being at least ten percent of the total amount of the bid**, for the payment of which sum in lawful money of the United States of America to the AUTHORITY we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

The condition of the above obligation is such that, whereas the BIDDER has submitted said Bid to the AUTHORITY;

NOW, THEREFORE, if the BIDDER is awarded a Contract by AUTHORITY and, within the time and in the manner required by the Specifications, enters into a written Contract with AUTHORITY, and furnishes the requisite bond or bonds, then this obligation shall become null and void, otherwise to remain in full force and effect.

In the event suit is brought upon this bond by AUTHORITY and judgment is recovered, the Surety shall pay all costs incurred by AUTHORITY in such suit, including a reasonable attorneys' fee to be fixed by the Court.

The Surety shall be bound by any valid arbitration award among the parties.

California law shall govern the interpretation of this bond.

Dated: _____, 2019

TO BE CONSIDERED COMPLETE, BOTH THE BIDDER AND AN ADMITTED SURETY INSURER AUTHORIZED BY THE CALIFORNIA INSURANCE COMMISSIONER TO TRANSACT SURETY BUSINESS IN THE STATE OF CALIFORNIA, MUST SIGN THIS BIDDER'S BOND. IN ADDITION, THE SURETY'S SIGNATURE MUST BE NOTARIZED AND A COPY OF THE SURETY'S POWER OF ATTORNEY MUST BE ATTACHED.

Notarized By: _____

Bidder's Name (Print)		

Bidder's Signature		

Surety's Name (Print)		

Surety's Signature		

Surety's Address		

City	State	Zip

Notary Stamp

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SAMPLE IRREVOCABLE STANDBY LETTER OF CREDIT

NOTE: SAMPLE FORMAT ONLY. ORIGINAL LETTER MUST BE ON THE FINANCIAL INSTITUTION'S LETTERHEAD FROM WHICH IT IS DRAWN.

Date: _____

Livermore Amador Valley Transit Authority
1362 Rutan Court, Suite 100
Livermore, CA 94551

Re: Irrevocable Standby Letter of Credit No. ____

Executive Director:

We hereby issue in favor of the Livermore Amador Valley Transit Authority this Irrevocable Standby Letter of Credit for the account of _____, a
(insert nature of organization, whether sole proprietorship, partnership, corporation, etc.), in the amount of XXXXXX Dollars, (\$000), which is available upon your demand when accompanied by a signed statement from an officer of the Livermore Amador Valley Transit Authority, stating that:

"The amount drafted is due to the Livermore Amador Valley Transit Authority because of the failure of to enter into a written Contract awarded to it by the AUTHORITY, or to furnish the requisite bond(s) or insurance certificates within the time and in the manner required by the Contract Documents and Specifications for [CONTRACT NAME, CONTRACT NUMBER]. We hereby agree with the drawers and/or bona fide holders that drafts drawn and negotiated in conformity with the terms of this Letter of Credit will be duly honored upon presentation when presented on or before _____, 2018. Partial drawings are permitted."

Except so far as otherwise expressly stated, this credit is subject to the Uniform Customs and Practice for Documentary Credits (2007 Revision) of the International Chamber of Commerce Publication No. 600.

Sincerely,

(Name of financial institution)

By: _____
(Signature)

Title: _____

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LIST OF REFERENCES

(Do not use Livermore Amador Valley Transit Authority ("LAVTA") as a reference)

1. COMPANY NAME _____
STREET ADDRESS _____
CITY, STATE, ZIP _____
NAME OF PERSON
TO CONTACT _____
AREA CODE/PHONE # (_____) _____
VALUE OF WORK PERFORMED _____

2. COMPANY NAME _____
STREET ADDRESS _____
CITY, STATE, ZIP _____
NAME OF PERSON
TO CONTACT _____
AREA CODE/PHONE # (_____) _____
VALUE OF WORK PERFORMED _____

3. COMPANY NAME _____
STREET ADDRESS _____
CITY, STATE, ZIP _____
NAME OF PERSON
TO CONTACT _____
AREA CODE/PHONE # (_____) _____
VALUE OF WORK PERFORMED _____

LIST OF REFERENCES (Cont.)

4. COMPANY NAME _____
STREET ADDRESS _____
CITY, STATE, ZIP _____
NAME OF PERSON
TO CONTACT _____
AREA CODE/PHONE # (_____) _____
VALUE OF WORK PERFORMED _____

5. COMPANY NAME _____
STREET ADDRESS _____
CITY, STATE, ZIP _____
NAME OF PERSON
TO CONTACT _____
AREA CODE/PHONE # (_____) _____
VALUE OF WORK PERFORMED _____

**NONCOLLUSION DECLARATION TO BE EXECUTED BY BIDDER
AND SUBMITTED WITH BID**

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____ [date], at _____ [city], _____ [state]."

Signature of Bidder

Title

Date

DISQUALIFICATION QUESTIONNAIRE

The Bidder shall complete, under penalty of perjury, the following questionnaire:

Has the Bidder, any officer of the Bidder, or any employee of the Bidder who has proprietary interest in the Bidder, ever been disqualified, removed, or otherwise prevented from Bidding on or completing a federal, state, or local government project because of a violation of law or a safety regulation?

Yes* _____ No _____

*If the answer is yes, explain the circumstances in the following space:

NOTE: This questionnaire constitutes a part of the Bid, and signature on any portion of this Bid shall constitute signature on this questionnaire.

IMPORTANT: USE A SEPARATE FORM FOR EACH SEPARATE SOLICITATION, PROVISION, OR SPECIFICATION ITEM REQUEST! COPY THIS FORM AS NEEDED.

Submitted by: _____ (Company Name)

The Authority requires that all prospective bidders completely fill out and attach this form **with every separate specification item request** for an Approved Equal pertaining to this Contract. Failure to completely fill out this form and submit with the request may result in denial of the request. Any further information that may be useful in reviewing such a request should also be attached to this form.

1. Approved equal is being requested for _____,
to be used in place of _____ (list technical specification or other reference number, [e.g. page TS-11, title, subsection, item]).
2. Description of approved equal request/substitution: _____
_____.
3. Product purpose: _____
_____.
4. Does this proposed approved equal request/substitution meet all applicable federal, state and local laws and regulations? _____ (If NO, please explain):

_____.
5. List three (3) commercial firms within the United States, which have used the proposed approved equal request/substitution (list California properties first):
 - A. Company Name _____
Street Address _____
City/State/Zip Code _____
Area Code/Telephone No. (_____) _____
Name of Contact Person _____
 - B. Company Name _____
Street Address _____
City/State/Zip Code _____
Area Code/Telephone No. (_____) _____
Name of Contact Person _____
 - C. Company Name _____
Street Address _____
City/State/Zip Code _____
Area Code/Telephone No. (_____) _____
Name of Contact Person _____
6. List the benefits and any other reasons why the Authority should approve this request for approved equal/substitution:

_____.
7. **Attach pertinent test data, technical data and background information on the approved equal/substitution request.**

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**DISADVANTAGED BUSINESS ENTERPRISE (DBE)
QUESTIONNAIRE**

1. **Is your firm a registered Disadvantaged Business Enterprise (DBE)?**

Yes _____ No _____

If the answer is "**Yes**", please fill in your DBE Certification Number: _____

2. **Does your firm plan to subcontract any of the work or services or procure items required under this contract to any subcontractors, subconsultants, or suppliers?**

Yes _____ No _____

If the answer is "**No**", you may stop here and you do not need to continue to Question 3. Please sign and submit this page.

3. **Describe briefly how your firm solicited small businesses, including DBEs, to participate on this contract.**

4. **Explain whether your firm considered selecting portions of the work that are economically feasible for small businesses, including DBEs, to perform. Identify the portion(s) of the work or service that was selected for subcontracting and explain why these portions of work were selected:**

5. **Explain the reasons for rejecting bids and accepting the bids from the selected subcontractor, subconsultant or supplier:**

6. Describe any efforts your firm made to assist small businesses, including DBEs, in obtaining (1) adequate information about this solicitation, and (2) necessary equipment, supplies, bonding, or insurance, among others, to perform this contract:

7. Describe any other steps your firm used to encourage or select small businesses, including DBEs:

The undersigned certifies that the above narrative is true and accurate and may be relied upon by the Agencies in evaluating the Bidder/Proposer's compliance with the bidding/proposal requirements.

Signature of Owner or Authorized Representative

Title

Date

Designation of Subcontractors and Sub-bidders

Bidder's Name: _____
Address: _____

Is your firm a Disadvantaged Business Enterprise: Yes _____ No _____
Firm's Annual Gross Receipts: _____ Age of Firm: _____
Phone: () _____ Fax: () _____

Bidder is required to furnish the following information in accordance with the provisions of Sections 4100 to 4114, inclusive, of the Public Contract Code of the State of California and Authority sub-bid reporting requirements.

Instructions:

(1) Bidder is required to furnish the following information on all subcontractors that will perform work, provide labor or render services in an amount in excess of .5% of the total contract price pursuant to Sections 4100 to 4114, inclusive, of the Public Contract Code of the State of California and Authority sub-bid reporting requirements.

(2) In addition, Bidder MUST provide information below for ALL subcontractors/subconsultants/suppliers ("sub-bidders") that provided Bidder a bid, quote, or proposal for work, services or supplies associated with this contract. This information shall be provided for all sub-bidders regardless of tier for both DBEs and non-DBEs alike. Include all bid acceptance(s) AND rejection(s). Signature is required on page two of this form.

Subcontractor/Subconsultant/Supplier Firm Name/Address/Phone/Fax/Contact Person	Contractor's License No. (if applicable)	DIR Registration No.	DBE (Yes/No)	Portion of Work/Bid Item No. or Type of Materials/Supplies	Dollar Amount of Work/Supplies	Bid/Quote Accepted (Yes/No)
1						
2						
3						
4						
5						

Note: Do not indicate more than one "Yes" in the column "Bid/Quote Accepted" for alternative subcontractors for the same work. Use additional sheets if necessary.

Designation of Subcontractors and Sub-bidders *(Continued)*

	Subcontractor/Subconsultant/Supplier Firm Name/Address/Phone/Fax/Contact Person	Contractor's License No. (if applicable)	DIR Registration No.	DBE (Yes/No)	Portion of Work/Bid Item No. or Type of Materials/Supplies	Dollar Amount of Work/Supplies	Bid/Quote Accepted (Yes/No)
6							
7							
8							
9							
10							

Note: Do not indicate more than one "Yes" in the column "Bid/Quote Accepted" for alternative subcontractors for the same work. Use additional sheets if necessary.

The undersigned will enter into a formal agreement with the subcontractor(s), subconsultant(s) and/or supplier(s) whose bid/quote was accepted conditioned upon execution of a contract with the LAVTA. The undersigned certifies that any DBE listed whose quote was accepted will be performing a commercially useful function on the contract. I certify under penalty of perjury that the information included on this form is accurate and true.

Signature of Owner or Authorized Representative

Date

Date

LOBBYING CERTIFICATION FOR CONTRACTS GRANTS, LOANS AND COOPERATIVE AGREEMENTS (Pursuant to 49 CFR Part 20, Appendix A)

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal Contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal Contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for making lobbying contacts to an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal Contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form--LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions and as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96).
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and Contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. § 1352 (as amended by the Lobbying Disclosure Act of 1995). Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The Bidder, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Bidder understands and agrees that the provisions of 31 U.S.C. A 3801, et. seq. apply to this certification and disclosure, if any.

_____ Signature of Authorized Official

_____ Name and Title of Authorized Official

_____ Date

DISCLOSURE OF LOBBYING ACTIVITIES		
Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352		
<p>1. Type of Federal Action:</p> <p>a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance</p>	<p>2. Status of Federal Action:</p> <p>a. bid/offer/application b. initial award c. post-award</p>	<p>3. Report Type:</p> <p>a. initial filing b. material change</p> <p>For Material Change Only: Year _____ Quarter _____ Date of last report: _____</p>
<p>4. Name and Address of Reporting Entity:</p> <p><input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier, if known: _____</p> <p>Congressional District, if known: _____</p>	<p>5. If Reporting Entity in No. 4 is Subawardee, Enter Name and Address of Prime:</p> <p>Congressional District, if known: _____</p>	
<p>6. Federal Department/Agency:</p>	<p>7. Federal Program Name/Description:</p> <p>CFDA Number, if applicable: _____</p>	
<p>8. Federal Action Number, if known: _____</p>	<p>9. Award Amount, if known: \$ _____</p>	
<p>10.a. Name and Address of Lobbying Entity (if individual, last name, first name, MI):</p>	<p>10.b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI):</p>	
<i>(Attach Continuation Sheet(s), if necessary)</i>		
<p>11. Amount of Payment (check all that apply):</p> <p>\$ _____ <input type="checkbox"/> actual <input type="checkbox"/> planned</p>	<p>13. Type of Payment (check all that apply):</p> <p><input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify _____</p>	
<p>12. Form of Payment (check all that apply):</p> <p><input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____</p>		
<p>14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment indicated in Item 11:</p>		
<i>(Attach Continuation Sheet(s), if necessary)</i>		
<p>15. Continuation Sheet(s) SF-LLL-A attached: <input type="checkbox"/> Yes <input type="checkbox"/> No</p>		
<p>16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reference was placed by the user above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each failure.</p>	<p>Signature: _____</p> <p>Print Name: _____</p> <p>Title: _____</p> <p>Telephone No. _____ Date: _____</p>	

DISCLOSURE OF LOBBYING ACTIVITIES
CONTINUATION SHEET

Reporting Entity: _____ Page _____ of _____

Authorized for Local Reproduction
Standard Form – LLL-A
BILLING CODES 3410-01-C; 6450-01-C; 6690-01-C;
8025-01C; 7510-01-C; 3510-FE-C; 8120-01-C; 4710-24-
C; 6116-01-C; 6051-01-C; 8230-01-C; 3210-01-C; 4210-
32-C; 4410-18-C; 4510-23-C; 4810-25-C; 3001-01-C;
4000-01-C; 3820-01-C; 6560-50-C; 6820-61-C; 4310-RF-
C; 6718-01-C; 4150-04-C; 7555-01-C; 7537-01-C; 7536-
01-C; 6050-28-C; 4910-62-C

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a covered Federal action. Use the SF-LLL-A Continuation Sheet for additional information if the space on the form is inadequate. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a follow-up report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the full name, address, city, state and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee", then enter the full name, address, city, state and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, state and zip code of the lobbying entity engaged by the reporting entity identified in item 4 to influence the covered Federal action.
(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a).
Enter Last Name, First Name, and Middle Initial(MI).
11. Enter the amount of compensation paid or reasonably expected to be paid by the reporting entity (item 4) to the lobbying entity (item 10). Indicate whether the payment has been made (actual) or will be made (planned). Check all boxes that apply. If this is a material change report, enter the cumulative amount of payment made or planned to be made.
12. Check the appropriate box(es). Check all boxes that apply. If payment is made through an in-kind contribution, specify the nature and value of the in-kind payment.
13. Check the appropriate box(es). Check all boxes that apply. If other, specify nature.
14. Provide a specific and detailed description of the services that the lobbyist has performed, or will be expected to perform, and the date(s) of any services rendered. Include all preparatory and related activity, not just time spent in actual contact with Federal officials. Identify the Federal official(s) or employee(s) contacted or the officer(s), employee(s), or Member(s) of Congress that were contacted.
15. Check whether or not a SF-LLL-A Continuation Sheet(s) is attached.
16. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

Public reporting burden for this collection of information is estimated to average 30 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, D.C. 20503.

**BUY AMERICA CERTIFICATE
(Steel, Iron or Manufactured Products)**

SELECT AND COMPLETE ONLY ONE OF THE FOLLOWING CERTIFICATIONS:

Certificate of Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it will meet the requirements of 49 U.S.C. 5323(j)(1), and the applicable regulations in 49 CFR Part 661.

Date _____

Signature _____

Company _____

Name _____

Title _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(1)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(1) and 49 CFR Part 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5325(j)(2)(D), and 49 CFR 661.7.

Date _____

Signature _____

Company _____

Name _____

Title _____

(This page intentionally left blank)

This Agreement, made and entered into this _____ day of _____ 2019, by and between _____, hereinafter called "Contractor" and the Livermore Amador Valley Transit Authority, hereinafter called "Authority."

WITNESSETH, that the Contractor and the Authority, for consideration hereinafter named, agree as follows:

1. SCOPE OF WORK

The Contractor shall perform all work and furnish all the labor, materials, tools, equipment, services and incidentals required under the Contract, in full accordance with the plans and specifications approved by the Authority entitled:

CONTRACT DOCUMENTS

FOR:

TRANSIT SIGNAL PRIORITY UPGRADE AND EXPANSION PROJECT

2019-04

dated _____, 2019, and which are appended hereto and made part of this Agreement.

2. TERM OF CONTRACT

The Contractor shall complete all work under the Contract Documents within 185 calendar days of the Notice to Proceed. After the Contract has been executed by the parties, the CONTRACTOR shall begin work within one (1) calendar day after the effective date of the Notice to Proceed, and shall diligently prosecute all of the work under this Contract in all parts and requirements as defined in the Contract Documents, from the effective date of said Notice to Proceed.

3. CONTRACT PRICE

The Contractor shall faithfully perform the work required in the documents for the Grand Total Bid Price amount shown on the bid documents. The Grand Total Bid Price includes all labor, materials, taxes, profit, overhead, insurance, subcontractor/subconsultant costs and all other costs and expenses incurred by the Contractor. Payments shall be made to the Contractor at the time and in the manner provided in the Contract Specifications.

4. INDEPENDENT CONTRACTOR STATUS

- A. The Contractor shall independently perform all Work required by the Contract Documents and shall not be considered as an agent or employee of the Authority, nor shall the Contractor's Subcontractors or employees be considered as subagents of the Authority.
- B. The Contractor and the Contractor's Subcontractors shall be licensed as required by the contract documents, in accordance with the laws of the State of California.

5. COMPONENT PARTS

This Contract shall consist of the following documents, each of which is on file in the office of the Authority and all of which are incorporated herein and made a part hereof by reference thereto:

- a. This Agreement
- b. Notice Inviting Sealed Bids
- c. General Conditions and Instructions for Bidders
- d. Special Provisions
- e. Approved Equals, if any
- f. Technical Specifications and drawings
- g. Addenda (if any)
- h. Bid (as accepted by Authority)
- i. Certificates of Insurance
- j. Performance and Payment Bonds

6. SERVICE OF NOTICE

Any notice required or permitted to be given by this Agreement shall be deemed given when personally delivered to recipient thereof or mailed by registered or certified mail, return receipt requested, postage prepaid, to the appropriate recipient thereof, in the case of the Contractor, at the business address specified in its bid and in the case of the Authority at the Livermore Amador Valley Transit Authority Administrative Offices, 1362 Rutan Court, Suite 100, Livermore, CA 94551, or at any other address which either party may subsequently designate in writing to other party.

7. GOVERNING LAW

This Contract shall be governed and construed in accordance with the laws of the State of California.

IN WITNESS WHEREOF, Authority has caused these presents to be executed by the Authority's officer thereunto duly authorized, and Contractor has subscribed same, all on the day and year first above written.

FOR THE CONTRACTOR:

Name under which business is conducted:

Business Address: _____

State _____ Zip Code _____ Telephone (____) _____

Type of business organization:

*If a Corporation (**see footnote**), incorporated under the laws of the State of:

The undersigned certify that they sign this Contract with full and proper authorization to do so.

By: _____ Print _____ Title: _____

By:* _____ Print _____ Title: _____

LIVERMORE AMADOR VALLEY TRANSIT AUTHORITY:

By: _____
Executive Director

APPROVED AS TO FORM:

By: _____
Attorney for the AUTHORITY

*If the Contractor is a Corporation, this Agreement *must be executed by two corporate officers*, consisting of:
(1) the President, Vice President, or Chair of the Board, *and*
(2) the Secretary, Assistant Secretary, Chief Financial Officer, Assistant CFO, Treasurer or Assistant Treasurer.
Alternatively, this Agreement may be executed by a single officer or a person other than an officer provided that evidence satisfactory to the Authority is provided demonstrating that such an individual is authorized to bind the corporation (e.g. a copy of a certified resolution from the corporation's board or a copy of the corporation's bylaws).

(this page intentionally left blank)

PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS, that

WHEREAS the **LIVERMORE/AMADOR VALLEY TRANSIT AUTHORITY**, hereinafter designated as "LAVTA," has awarded to _____, hereinafter designated as the "Principal," a Contract for _____; and

WHEREAS, said Principal is required under the terms of said Contract and the Specifications therefore to furnish a bond of faithful performance of said Contract,

NOW, THEREFORE, we, the Principal, and _____, as a California-admitted Surety, are held and firmly bound unto the said LAVTA in the penal sum of _____, being a sum equal to the total amount payable under the Contract, for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH, that if the above-bound Principal, or its heirs, executors, administrators, successors, or assigns approved by LAVTA, shall promptly and faithfully perform the covenants, conditions and agreements in the Contract during the original term and any extensions thereof as may be granted by LAVTA, with or without notice to Surety, and during the period of any guarantees or warranties required under the Contract, and shall also promptly and faithfully perform all the covenants, conditions, and agreements of any alteration of the Contract made as therein provided, notice of which alterations to Surety being hereby waived, on Principal's part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify, defend, protect, and hold harmless LAVTA as stipulated in the Contract, then this obligation shall become and be null and void; otherwise it shall be and remain in full force and effect.

No extension of time, change, alteration, modification, or addition to the Contract, or of the work required thereunder, shall release or exonerate Surety on this bond or in any way affect the obligation of this bond; and Surety does hereby waive notice of any such extension of time, change, alteration, modification, or addition.

Whenever Principal shall be and declared by LAVTA to be in default under the Contract, Surety shall promptly remedy the default, or shall promptly do one of the following at LAVTA's election:

1. Undertake through its agents or independent contractors, reasonably acceptable to LAVTA, to complete the Contract in accordance with its terms and conditions and to pay and perform all obligations of Principal under the Contract, including without limitation, all obligations with respect to warranties, guarantees, and the payment of liquidated damages.
2. Reimburse LAVTA for all costs LAVTA incurs in completing the Contract, , including consequential damages and costs associated with re-soliciting the contract, if applicable, negotiation and completion of the project, and in correcting, repairing or replacing any

defects in materials or workmanship and/or materials and workmanship which do not conform to the specifications in the Contract.

Surety's obligations hereunder are independent of the obligations of any other surety for the performance of the Contract, and suit may be brought against Surety and such other sureties, jointly and severally, or against any one or more of them, or against less than all of them without impairing LAVTA'S rights against the others.

No right of action shall accrue on this bond to or for the use of any person or corporation other than LAVTA or its successors or assigns.

In the event suit is brought upon this bond by LAVTA, Surety shall pay reasonable attorney's fees and costs incurred by LAVTA in such suit.

IN WITNESS WHEREOF, the above bounded parties have executed this instrument under their seals this _____ day of _____, 20__, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

Principal

By: _____

By: _____

Surety

Address of Surety

Note: To be signed by Principal and Surety and signature of individual signing for Surety shall be notarized and evidence of power of attorney attached.

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, that _____ called the PRINCIPAL, and _____ a corporation duly organized under the laws of the State of _____, having its principal place of business at _____ in the State of _____, and authorized to do business in the State of California, hereinafter called the SURETY, are held and firmly bound unto the Livermore Amador Valley Transit Authority, hereinafter called the OBLIGEE, or order in the sum of _____ (\$ _____ .00) lawful money of the United States, for the payment of which, well and truly to be made, we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH THAT:

WHEREAS, the PRINCIPAL has entered into a Contract with the OBLIGEE for _____ and said PRINCIPAL is required under the terms of said Contract to furnish a bond securing payment of claims to which reference is made in Section 3248 of the Civil Code.

NOW, THEREFORE, if said PRINCIPAL or any of its subcontractors fails to pay any of the persons named in Section 9100 of the Civil Code, or amounts due under the Unemployment Insurance Code with respect to work or labor performed under the Contract, or any amounts required to be deducted, withheld and paid over to the Employment Development Department from the wages of employees of the Contractor and his subcontractors pursuant to Section 13020 of the Unemployment Insurance Code with respect to such work and labor, the SURETY, will pay for the same, in an amount not exceeding the sum specified in this bond, and also will pay, in case suit is brought upon this bond, a reasonable attorney's fee, to be fixed by the court.

This bond will inure to the benefit of any of the persons named in Section 9100 of the Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this bond.

This bond is given to comply with Sections 9550 and 9554 of the Civil Code. The liability of the PRINCIPAL and SURETY hereunder is governed by the provisions of said Code, all acts amendatory thereof, and all other statutes referred to therein, including Section 8152 of the Civil Code.

SURETY, for value received, hereby agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder or to the Contract Documents accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract or to the work or to the other portions of the Contract Documents.

IN WITNESS WHEREOF the above-bounded parties have executed this instrument this ___ day of _____, 20___, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representatives, pursuant to authority of its governing body.

IT IS SO AGREED:

PRINCIPAL

SURETY

By: _____

By: _____

_____ [Name]

_____ [Name]

_____ [Title]

_____ [Title]

STATE OF CALIFORNIA

)

) ss.

CITY AND COUNTY OF _____

)

On _____, 20___ before me, _____, Notary Public, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

Witness my hand and official seal.

Notary Public

STATE OF CALIFORNIA

)

) ss.

CITY AND COUNTY OF _____

)

On _____, 20___ before me, _____, Notary Public, personally appeared _____, personally known to me (or proved to me on the basis of satisfactory evidence) to be the person(s) whose name(s) is/are subscribed to the within instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted, executed the instrument.

Witness my hand and official seal.

Notary Public

TO BE CONSIDERED COMPLETE, BOTH THE BIDDER AND AN ADMITTED SURETY INSURER AUTHORIZED BY THE CALIFORNIA INSURANCE COMMISSIONER TO TRANSACT SURETY BUSINESS IN THE STATE OF CALIFORNIA MUST SIGN THIS PERFORMANCE BOND. IN ADDITION, BOTH THE PRINCIPAL'S AND THE SURETY'S SIGNATURES MUST BE NOTARIZED AND A COPY OF THE SURETY'S POWER OF ATTORNEY MUST BE ATTACHED.

ACORD CERTIFICATE OF LIABILITY INSURANCE		OP ID BG BARBA-1	DATE (MM/DD/YY) 03/14/02
PRODUCER	THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW.		
INSURERS AFFORDING COVERAGE			
INSURED	INSURER A: Chubb Group		
	INSURER B: Kemper National Ins. Co.		
	INSURER C: Lexington Insurance Company		
	INSURER D: Lloyd's of London		
	INSURER E: Allianz Insurance Company		

COVERAGES

THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. AGGREGATE LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	LIMITS	
A	GENERAL LIABILITY	AB 12345678	03/14/02	03/14/03	EACH OCCURRENCE	\$ 1,000,000
	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY				FIRE DAMAGE (Any one fire)	\$ 250,000
	<input type="checkbox"/> CLAIMS MADE <input checked="" type="checkbox"/> OCCUR				MED EXP (Any one person)	\$ 10,000
					PERSONAL & ADV INJURY	\$ 1,000,000
					GENERAL AGGREGATE	\$ 2,000,000
					PRODUCTS - COMP/OP AGG	\$ 2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:					
<input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC						
A	AUTOMOBILE LIABILITY	AU45678901	03/14/02	03/14/03	COMBINED SINGLE LIMIT (Ea accident)	\$ 1,000,000
	<input checked="" type="checkbox"/> ANY AUTO				BODILY INJURY (Per person)	\$
	<input type="checkbox"/> ALL OWNED AUTOS				BODILY INJURY (Per accident)	\$
	<input type="checkbox"/> SCHEDULED AUTOS				PROPERTY DAMAGE (Per accident)	\$
<input type="checkbox"/> HIRED AUTOS						
<input type="checkbox"/> NON-OWNED AUTOS						
	GARAGE LIABILITY				AUTO ONLY - EA ACCIDENT	\$
	<input type="checkbox"/> ANY AUTO				OTHER THAN EA ACC	\$
					AUTO ONLY: AGG	\$
	EXCESS LIABILITY				EACH OCCURRENCE	\$
	<input type="checkbox"/> OCCUR <input type="checkbox"/> CLAIMS MADE				AGGREGATE	\$
	<input type="checkbox"/> DEDUCTIBLE					\$
	<input type="checkbox"/> RETENTION \$					\$
						\$
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY	WC 9012345	03/14/02	03/14/03	<input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTH-ER	
					E.L. EACH ACCIDENT	\$ 1,000,000
					E.L. DISEASE - EA EMPLOYEE	\$ 1,000,000
					E.L. DISEASE - POLICY LIMIT	\$ 1,000,000
	OTHER					

DESCRIPTION OF OPERATIONS/LOCATIONS/VEHICLES/EXCLUSIONS ADDED BY ENDORSEMENT/SPECIAL PROVISIONS

STL
 LAVIA its directors, officers, employees and agents are added as Additional Insured on General Liability and Auto.
 Severability of Interests Clause on General Liability.
 Waiver of Subrogation on all above coverages.

CERTIFICATE HOLDER	Y	ADDITIONAL INSURED; INSURER LETTER: <u>A</u>	CANCELLATION
Livermore Amador Valley Trans. Auth. 1362 Rutan Court, Suite 100 Livermore			SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, THE ISSUING INSURER WILL BE REQUIRED TO MAIL <u>30</u> DAYS WRITTEN NOTICE TO THE CERTIFICATE HOLDER NAMED TO THE LEFT, IN THE MANNER AND BY THE MEANS SPECIFIED IN THE POLICY CONTRACT. _____ AUTHORIZED REPRESENTATIVE