REQUEST FOR PROPOSALS

Sealed proposals must be received <u>before</u> 11:00 AM on Thursday, November 1, 2007, by Purchasing of the City of Santa Clarita, 23920 Valencia Boulevard, Suite 245, Santa Clarita, California, 91355-2196, for the purchase of:

<u>PS-07-08-08</u>

TRANSIT INFORMATION NETWORK

Specifications for this bid may be downloaded from the City's Purchasing website at www.santa-clarita.com/purchasing. Specifications may also be picked up at the City of Santa Clarita, Purchasing Division, 23920 Valencia Boulevard, Suite 245, Santa Clarita, California, 91355-2196. Specifications may also be sent by mail or Federal Express by phoning Dee Monkhouse, (661) 286-4183. Please have your Federal Express account number available. Please refer to specifications for complete details and bid requirements. There will be a pre-bid conference on September 11, 2007 at 10:00 AM at the Transit Maintenance Facility Conference Room, located at 28250 Constellation Road, Santa Clarita, CA 91355.

Bidders may fax their questions to Bob Michler at (661) 286-4186 until 4:00 PM on or before October 18, 2007. Any questions submitted after October 18, 2007 will not be answered. Questions and answers will be issued as an addendum via fax to all Plan-holders prior to bid opening. All signed addenda must be submitted with the bid proposal.

In accordance with the provisions of California Public Contract Code Section 3300, the successful bidder, or identified subcontractor, shall possess a State Contractor's License, Class C-10 at the time that a contract for this work is awarded. Failure to possess the specified license shall render the bid as non-responsive and shall act as a bar to award the contract to any bidder not possessing said license at the time of award. As provided for in Section 22300 of the California Public Contract Code, the Contractor may substitute securities for monies withheld by the City to ensure performance under the contract.

This contract is subject to the State prevailing wage requirements of the California Labor Code including Sections 1770, 1771.5, 1773, 1776 and 1777.5. Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department

of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available from the California Department of Industrial Relations' Internet web site at http://www.dir.ca.gov/dlsr/pwd. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates. A copy of the prevailing rate of per diem wages shall be posted at the job site.

The City has contracted with an LCP Third Party Administrator to monitor and enforce Prevailing Wage and other necessary elements of the City's DIR approved LCP.

The City affirmatively ensures that minority business enterprises will be afforded full opportunity to submit bids in response to this notice and will not be discriminated against on the basis of race, color, national origin, ancestry, sex, or religion in consideration for an award.

Contractor shall further adhere to the requirements contained in the City of Santa Clarita's Labor Compliance Program, approved by the DIR for projects with a Bid Advertise Date of November 20, 2003 or later, and which will become part of the conformed documents. All pertinent California statutes and regulations, including, but not limited to those referred to in the City's Labor Compliance Program, are incorporated herein by reference as though set forth in their entirety. Additionally, the Contractor is responsible for obtaining a current edition of all California statutes and regulations and adhering to the latest editions of such.

Contractor shall submit certified copy of all Certified Payroll Records (CPRs) with the progress payment on at least monthly basis to the City.

This contract is subject to both Federal and State prevailing wage requirements of the California Labor Code including Sections 1770, 1771.5, 1773 and 1777.5, The Davis-Bacon and Related Acts, and the City's California Department of Industrial Relations (DIR) approved Labor Compliance Program (LCP). All covered work classifications required in performance of this contract will be subject to prevailing wage provisions. Attention is directed to the Federal minimum wage rate requirements for the labor skills Contractor will provide for the performance of required work at the wages rates found at http://www.gpo.gov/davisbacon/ . If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. The Department will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate, which most closely approximates the duties of the employees in question.

Bidders are advised that, as required by federal law, the State has established a statewide overall DBE goal. This Agency federal-aid contract is considered to be part of the statewide overall DBE goal. The Agency is required to report to Caltrans on DBE participation for all Federal-aid contracts each year so that attainment efforts may be evaluated. To provide assistance in meeting the statewide goal, the Agency may include a DBE Availability Advisory in this contract. Bidders need not achieve the percentage stated in any DBE Availability Advisory as a condition of award.The specifications in this notice shall be considered a part of any contract made pursuant thereto.

Purchasing
(661) 286-4183

Newhall Signal

Published three times: August 29, 2007, September 2, 2007 and September 5, 2007

CITY OF SANTA CLARITA

REQUEST FOR PROPOSAL

PROPOSAL # PS-07-08-08

PROPOSAL ARE DUE BEFORE: 11:00 A.M., November 1, 2007

The City of Santa Clarita invites sealed proposals for:

TRANSIT INFORMATION NETWORK

1. Return original of Proposal to: City of Santa Clarita
    Purchasing
    23920 Valencia Blvd., Suite 245
    Santa Clarita, CA 91355-2196
2. Prices shall be D.D.P. Destination or for the service rendered.
3. Proposer shall honor proposal prices for sixty (60) days or for the stated contract period, whichever is longer.
4. Proposals must include this Proposal form and be signed by the vendor's authorized representative.
5. **The vendor is responsible for the accuracy and completeness of any solicitation form not obtained directly from the City.**

To help the City in source recruitment please let us know how you learned of this solicitation. Check one.

_____ Advertisement   _____ Direct mail   _____ Electronic medium (BBS, services etc.)   _____ Bidding Service

_____ Word of mouth   _____ Other (list) _____

PROPOSER TO READ

I have, read, understood, and agree to the terms and conditions on all pages of this proposal. The undersigned agrees to furnish the commodity or service stipulated on this proposal as stated above.

Company: _____   Address: _____

Name (Print): _____   Signature: _____

Company Phone No.: _____   Title of Person Signing Bid: _____

A.   **PROPOSAL INSTRUCTIONS**

1.   Submitting Proposals. (a) The proposal must be submitted on this form, in its entirety, (attachments accepted) in a sealed envelope with the wording "Proposal", proposal number and closing date marked on the outside. (b) All documentation of unit pricing or other cost breakdowns as outlined in this proposal must be submitted to support the total proposal price. (c) Proposals/corrections received after the closing time will not be opened. The City will not be responsible for proposals not properly marked and delivered. Upon award, all submissions become a matter of public record.

2.   Alternatives. Any changes or alternatives must be set forth in a letter attached to this proposal. The City has the option of accepting or rejecting any alternative proposal.

3.   Currency. All references to dollar amounts in this solicitation and in vendor's response refer to United States currency. Payment will be made in United States currency.

4.   Preparation. All proposals must be typed or written in black ink. Errors may be crossed out and corrected in ink, then initialed in ink by the person signing the proposal. In compliance with Resolution 93-9, all proposals and attachments must be submitted on recycled paper.

5.   Environmentally Preferable Purchasing. The City of Santa Clarita being fully aware of the limited nature of our resources and the leadership role government agencies have, supports the Environmentally Preferable Purchasing (EPP) program. With changes in technology and industries occurring rapidly it is frequently difficult to be aware of the latest innovations. Therefore, it is the intent of the City of Santa Clarita to seek out those products which result in less energy usage, least impact on natural resources and greatest reuse of post-industrial and post-consumer material. Bidders are strongly encouraged to offer products meeting these criteria and point out those specific aspects or features in their bid.

6.   Failure to Submit Proposal. Your name may be removed from the mailing list if the City receives no response to this proposal.

7.   Taxes, Charges and Extras. (a) Proposer must show as a separate item California State Sales and/or Use Tax. (b) The City is exempt from Federal Excise Tax. (c) Charges for transportation, containers, packing, etc. will not be paid unless specified in proposal.

8.   Awards. The City may make an award based on partial items unless the proposal submitted is marked "All or none." Contractor selection is based upon multiple award criteria as specified in Section C, Statement of Work and Format.

9.   Default. In case of default by the vendor of any of the conditions of this proposal or contract resulting from this proposal, the vendor agrees that the City may procure the articles or services from other sources and may deduct from the unpaid balance due the vendor, or collect against the bond or surety, or may invoice the vendor for excess costs so paid, and prices paid by the City shall be considered the prevailing market price at the time such purchase is made.

10.   Assignment. No assignment by the vendor of contract or any part hereof, or of funds to be received hereunder, is binding upon the City unless the City gave written consent before such assignment.

11.   Sub contractors. The Proposer must list any subcontractors that will be used, the work to be performed by them, and total number of hours or percentage of time they will spend on the project. **This is a federally funded project. Bids may not be accepted from the specification design consultant nor may any bidder allow the specification design consultant to provide any assistance, whether as a designated subcontractor or not, in exchange for any type of consideration.**

12.   Protection of Resident Workers. The City of Santa Clarita actively supports the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment

verification, and nondiscrimination. Under the INA, employers may hire only persons who may legally work in the United States (i.e., citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The employer must verify the identity and employment eligibility of anyone to be hired, which includes completing the Employment Eligibility Verification Form (I-9). The Contractor shall establish appropriate procedures and controls so no services or products under the Contract Documents will be performed or manufactured by any worker who is not legally eligible to perform such services or employment.

13. Termination. The City may terminate any service or requirement contract, with or without cause, either verbally or in writing any time.

14. Indemnification. The bidder is required to indemnify and hold the City harmless from and against any claim, action, damages, costs (including, without limitation, attorney's fees), injuries, or liability, arising out of any agreement entered into between the parties. Should the City be named in any suit, or should any claim be brought against it by suit or otherwise, whether the same be groundless or not, arising out of this Agreement, or its performance, the bidder must defend the City (at the City's request and with counsel satisfactory to the City) and indemnify the City for any judgment rendered against it or any sums paid out in settlement or otherwise.

15. Bonds. Bid bonds shall be furnished by all proposers in the amount of at least 10% of the total value of the bid to guarantee that proposers will enter into contract to furnish goods at prices stated. Likewise, Performance Bond and Material and Labor Bonds shall be required of the successful proposer when stated in the specification (cash deposit, certified or cashier's check or money order may be substituted in lieu of either bond).

16. Insurance. For contracts involving services the City requires insurance. Insurance shall be primary insurance and must name the City of Santa Clarita as an additional insured. Proof of insurance in the following amounts shall be provided prior to contract signing; liability in the amount of $1,000,000, automotive in the amount of $1,000,000, worker's compensation in accordance with California law and fire and extended coverage (services involving real property only). For professional services, coverage for errors and omissions may also be required. Specific insurance requirements will be set forth in any contract awarded to a proposer.

17. Payment. (a) Proposer shall state payment terms offered. (b) Payment will be made on the pay period after receipt and acceptance of goods and/or services and upon using department confirmation of such acceptance.

18. On-Site Inspection. When deemed necessary by the City, an on-site inspection date and time will be so designated. Proposer is responsible for inspecting and understanding the total scope of the projects (i.e., specifications, quality, and quantity of work to be performed.)

19. Specifications. Materials differing from stated specifications may be considered, provided such differences are clearly noted and described, and provided further that such articles are considered by a City official to be in all essential respects in compliance with the specifications.

20. Brand Names. The use of the name of a manufacturer, or any specific brand or make, in describing any item contained in the proposal does not restrict proposers to the manufacturer or specific article, this means is being used simply to indicate a quality and utility of the article desired; but the goods on which proposals are submitted must in all cases be equal in quality and utility to those referred to. This exception applies solely to the material items in question and does not supercede any other specifications or requirements cited. Documentation of equivalency must be submitted with the bid. At a minimum the documentation must demonstrate equivalency in form, fit, function, quality, performance and all other stated requirements. The City is final determiner of equivalency. Exception is made on those items wherein identical supply has been determined a necessity and the notation NO SUBSTITUTE has been used in the specifications.

PROPOSAL INSTRUCTIONS (continued)

21. <u>Proposal Rejection</u>. The City may reject the proposal of any proposer who has previously failed to perform properly, or complete on time, contracts of a similar nature, or to reject the proposal of a proposer who is not in a position to perform such a contract satisfactorily. The City may reject the proposal of any proposer who is in default of the payment of taxes, licenses or other monies due to the City of Santa Clarita. The City reserves the right to reject any or all proposals and to waive any informality in any proposal.

22. <u>Addenda</u>. The City will not accept responsibility for incomplete packages or missing addenda. It is the quoter's responsibility to contact the project manager, for public projects, or Purchasing prior to submission of the quote to make certain the package is complete and all required addenda are included. This information will also be available from the City's website if the quote was downloaded.

23. <u>Price Reductions</u>. If at any time during the life of this contract, the successful proposer reduces his price or prices to others purchasing approximately the same quantities as contemplated by this contract, the contract prices must be reduced accordingly, and the contractor/vendor will immediately notify the Purchasing Agent, City of Santa Clarita.

24. <u>Contract Pricing</u>. Except as otherwise provided, price proposals must remain consistent through the term of this contract.

25. <u>Non-Appropriation of Funds</u>. The City's obligation is payable only and solely from funds appropriated for the purpose of this agreement. All funds for payment after June 30 of the current fiscal year are subject to City's legislative appropriation for this purpose. In the event the governing body appropriating funds does not allocate sufficient funds for the next succeeding fiscal year's payments. Then the affected deliveries/services may be (1) terminated without penalty in their entirety, or (2) reduced in accordance with available funding as deemed necessary by the City. The City shall notify the Contractor in writing of any such non-allocation of funds at the earliest possible date.

26. <u>Safety</u>. Contractor agrees to comply with the provisions of the Occupational Safety and Health Act of 1970 (or latest revision), the State of California Safety Orders, and regulations issued thereunder, and certifies that all items furnished under this proposal will conform and comply with the indemnity and hold harmless clause for all damages assessed against buyer as a result of suppliers failure to comply with the Act and the standards issued thereunder and for the failure of the items furnished under this order to so comply.

27. <u>Compliance With Laws</u>. Contractor shall conform to and abide by all applicable municipal, City, State and Federal laws and regulations, insofar as the same or any of them are applicable; and where permits and/or licenses are required for the prescribed material/services and /or any construction authorized herein, the same must be first obtained from the regulatory agency having jurisdiction there over.

28. <u>Prevailing Wage</u>. This contract is subject to the State prevailing wage requirements of the California Labor Code including Sections 1770, 1771.5, 1773, 1776 and 1777.5. Pursuant to Section 1773 of the Labor Code, the general prevailing wage rates in the county, or counties, in which the work is to be done have been determined by the Director of the California Department of Industrial Relations. These wages are set forth in the General Prevailing Wage Rates for this project, available from the California Department of Industrial Relations' Internet web site at http://www.dir.ca.gov/dlsr/pwd. Future effective general prevailing wage rates which have been predetermined and are on file with the California Department of Industrial Relations are referenced but not printed in the general prevailing wage rates. A copy of the prevailing rate of per diem wages shall be posted at the job site.

    The City has contracted with an LCP Third Party Administrator to monitor and enforce Prevailing Wage and other necessary elements of the City's DIR approved LCP.

The City affirmatively ensures that minority business enterprises will be afforded full opportunity to submit bids in response to this notice and will not be discriminated against on the basis of race, color, national origin, ancestry, sex, or religion in consideration for an award.

Contractor shall further adhere to the requirements contained in the City of Santa Clarita's Labor Compliance Program, approved by the DIR for projects with a Bid Advertise Date of November 20, 2003 or later, and which is provided as Attachment B. All pertinent California statutes and regulations, including, but not limited to those referred to in the City's Labor Compliance Program, are incorporated herein by reference as though set forth in their entirety. Additionally, the Contractor is responsible for obtaining a current edition of all California statutes and regulations and adhering to the latest editions of such.

Contractor shall submit certified copy of all Certified Payroll Records (CPRs) with the progress payment on at least monthly basis to the City.

This contract is subject to both Federal and State prevailing wage requirements of the California Labor Code including Sections 1770, 1771.5, 1773 and 1777.5, The Davis-Bacon and Related Acts, and the City's California Department of Industrial Relations (DIR) approved Labor Compliance Program (LCP). All covered work classifications required in performance of this contract will be subject to prevailing wage provisions. Attention is directed to the Federal minimum wage rate requirements for the labor skills Contractor will provide for the performance of required work at the wages rates found at http://www.gpo.gov/davisbacon/ . If there is a difference between the minimum wage rates predetermined by the Secretary of Labor and the general prevailing wage rates determined by the Director of the California Department of Industrial Relations for similar classifications of labor, the Contractor and subcontractors shall pay not less than the higher wage rate. The Department will not accept lower State wage rates not specifically included in the Federal minimum wage determinations. This includes "helper" (or other classifications based on hours of experience) or any other classification not appearing in the Federal wage determinations. Where Federal wage determinations do not contain the State wage rate determination otherwise available for use by the Contractor and subcontractors, the Contractor and subcontractors shall pay not less than the Federal minimum wage rate, which most closely approximates the duties of the employees in question.

Bidders are advised that, as required by federal law, the State has established a statewide overall DBE goal. This Agency federal-aid contract is considered to be part of the statewide overall DBE goal. The Agency is required to report to Caltrans on DBE participation for all Federal-aid contracts each year so that attainment efforts may be evaluated. To provide assistance in meeting the statewide goal, the Agency may include a DBE Availability Advisory in this contract. Bidders need not achieve the percentage stated in any DBE Availability Advisory as a condition of award.

28. <u>Gratuities</u>. The City may, by written notice to the Contractor, terminate the right of the Contractor to proceed under this agreement, if it is found that gratuities in the form of entertainment, gifts, or otherwise were offered or given by the Contractor, or any agent or representative of the Contractor, to any officer or employee of the City with a view toward securing an agreement or securing favorable treatment with respect to the award or amending, or the making of any determinations with respect to the performance of such agreement; provided, that the existence of the facts upon which the City makes findings shall be in issue and may be reviewed in any competent court. In the event of such termination, the City shall be entitled to pursue the same remedies against the Contractor as the City could pursue in the event of default by the Contractor.

29. <u>Delivery</u>. Unless otherwise specified, delivery shall be FOB, the City of Santa Clarita, site of user division and contract delivery may begin not later than fifteen (15) calendar days from receipt of order.

30.   Invoices. Invoices will be forwarded to:
                         City of Santa Clarita
                         Accounts Payable
                         23920 Valencia Blvd. Ste. 295
                         Santa Clarita, CA 91355-2196
       Invoices will reflect the purchase order # and goods or service delivered in accordance with the terms of the contract. Invoice processing begins on receipt of the material or invoice, whichever is later.

31.   Proposal Questions. Questions should be forwarded on letterhead to:
                         City of Santa Clarita
                         Requesting Department
                         23920 Valencia Blvd.
                         Santa Clarita, CA 91355-2196
       Questions may also be faxed to (661) 286-4186.
       The last day for questions and site visits will October 18, 2007.

32.   Renewal. Contracts entered into pursuant to this Request For Proposal may be renewed annually on July 1, up to two times in accordance with the terms of the contract. If not otherwise stated, the contract may be renewed if the new pricing of the contract does not increase more than the increase in the Consumer Price Index - All Urban Consumers, Los Angeles area and prevailing wage, if applicable, for the same time period since the last contracted price.   If not renewed prior to the anniversary date, the contract may continue on a month to month basis until renewed or awarded to a new contractor.

33.   Buy America. The contractor agrees to comply with 49 U.S.C. 5323(j) and 49 C.F.R. 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. General waivers are listed in 49 C.F.R. 661.7, and include final assembly in the United States for 15 passenger vans and 15 passenger wagons produced by Chrysler Corporation, and microcomputer equipment and software. Separate requirements for rolling stock are set out at 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11. Rolling stock must be assembled in the United States and have a 60 percent domestic content.

       A bidder or offeror must submit to the FTA recipient the appropriate Buy America certification (below) with all bids or offers on FTA-funded contracts, 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.

       Certification requirement for procurement of steel, iron, or manufactured products.

       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 C.F.R. Part 661.5.

       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 C.F.R. 661.5, but it may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 C.F.R. 661.7.

Date _____

Signature _____

Company Name _____

Title _____

Certification requirement for procurement of buses, other rolling stock and associated equipment.

Certificate of Compliance with 49 U.S.C. 5323(j)(2)(C).

The bidder or offeror hereby certifies that it will comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and the regulations at 49 C.F.R. Part 661.11.

Date _____

Signature _____

Company Name _____

Title _____

Certificate of Non-Compliance with 49 U.S.C. 5323(j)(2)(C)

The bidder or offeror hereby certifies that it cannot comply with the requirements of 49 U.S.C. 5323(j)(2)(C) and 49 C.F.R. 661.11, but may qualify for an exception pursuant to 49 U.S.C. 5323(j)(2)(A), 5323(j)(2)(B), or 5323(j)(2)(D), and 49 CFR 661.7.

Date _____

Signature _____

Company Name _____

Title _____

34.   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 Energy Policy and Conservation Act.

35.   Clean Water. (a) 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. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(b) The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

36. Lobbying

Byrd Anti-Lobbying Amendment, 31 U.S.C. 1352, as amended by the Lobbying Disclosure Act of 1995, P.L. 104-65 [to be codified at 2 U.S.C. § 1601, et seq.] - Contractors who apply or bid for an award of $100,000 or more shall file the certification required by 49 CFR part 20, "New Restrictions on Lobbying." Each tier certifies to the tier above that it will not and has not used Federal 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. Each tier 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 are forwarded from tier to tier up to the recipient.

APPENDIX A, 49 CFR PART 20--CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

(To be submitted with each bid or offer exceeding $100,000)

The undersigned [Contractor] certifies, to the best of his or her knowledge and belief, that:
(a) 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.

(b) 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 [as amended by "Government wide Guidance for New Restrictions on Lobbying," 61 Fed. Reg. 1413 (1/19/96). Note: Language in paragraph (b) herein has been modified in accordance with Section 10 of the Lobbying Disclosure Act of 1995 (P.L. 104-65, to be codified at 2 U.S.C. 1601, *et seq.*)]

(c) 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.

[Note: Pursuant to 31 U.S.C. § 1352(c)(1)-(2)(A), any person who makes a prohibited expenditure or fails to file or amend a required certification or disclosure form shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such expenditure or failure.]

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor 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 Contractor's Authorized Official

_____ Name and Title of Contractor's Authorized Official

_____ Date

37.   Access to Records. The following access to records requirements apply to this Contract:

(a) Where the Purchaser is not a State but a local government and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 18.36(i), the Contractor agrees to provide the Purchaser, the FTA Administrator, the Comptroller General of the United States or any of their authorized representatives access to any books, documents, papers and records of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions. Contractor also agrees, pursuant to 49 C.F.R. 633.17 to provide the FTA Administrator or his authorized representatives including any PMO Contractor access to Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311.

(b) Where the Purchaser is a State and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 633.17, Contractor agrees to provide the Purchaser, the FTA Administrator or his authorized representatives, including any PMO Contractor, access to the Contractor's records and construction sites pertaining to a major capital project, defined at 49 U.S.C. 5302(a)1, which is receiving federal financial assistance through the programs described at 49 U.S.C. 5307, 5309 or 5311. By definition, a major capital project excludes contracts of less than the simplified acquisition threshold currently set at $100,000.

(c) Where the Purchaser enters into a negotiated contract for other than a small purchase or under the simplified acquisition threshold and is an institution of higher education, a hospital or other non-profit organization and is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 C.F.R. 19.48, Contractor agrees to provide the Purchaser, FTA Administrator, the Comptroller General of the United States or any of their duly authorized representatives with access to any books, documents, papers and record of the Contractor which are directly pertinent to this contract for the purposes of making audits, examinations, excerpts and transcriptions.

(d) Where any Purchaser which is the FTA Recipient or a subgrantee of the FTA Recipient in accordance with 49 U.S.C. 5325(a) enters into a contract for a capital project or improvement (defined at 49 U.S.C. 5302(a)1) through other than competitive bidding, the Contractor shall make available records related to the contract to the Purchaser, the Secretary of Transportation and the Comptroller General or any authorized officer or employee of any of them for the purposes of conducting an audit and inspection.

(e) The Contractor agrees to permit any of the foregoing parties to reproduce by any means whatsoever or to copy excerpts and transcriptions as reasonably needed.

(f) The Contractor 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 same until the Purchaser, 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. Reference 49 CFR 18.39(i)(11).

(g) FTA does not require the inclusion of these requirements in subcontracts.

Requirements for Access to Records and Reports by Types of Contract

Contract Characteristics		Operational Service Contract	Turnkey	Construction	Architectural Engineering	Acquisition of Rolling Stock	Professional Services
I <u>State Grantees</u> a. Contracts below SAT ($100,000) b. Contracts above $100,000/Capital Projects		None None unless[1] non-competitive award	Those imposed on state pass thru to Contractor	None Yes, if non-competitive award or if funded thru[2] 5307/5309/5311	None None unless non-competitive award	None None unless non-competitive award	None None unless non-competitive award
II <u>Non State Grantees</u> a. Contracts below SAT ($100,000) b. Contracts above $100,000/Capital Projects		Yes[3] Yes[3]	Those imposed on non-state Grantee pass thru to Contractor	Yes Yes	Yes Yes	Yes Yes	Yes Yes

Sources of Authority:
[1] 49 USC 5325 (a)
[2] 49 CFR 633.17
[3] 18 CFR 18.36 (i)

38.   <u>Federal Changes</u>. 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 Master Agreement between Purchaser and 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.

39.   <u>Bonding Requirements</u>

Bid Bond Requirements (Construction)

(a) Bid Security

A Bid Bond must be issued by a fully qualified surety company acceptable to City of Santa Clarita and listed as a company currently authorized under 31 CFR, Part 223 as possessing a Certificate of Authority as described thereunder.

(b) Rights Reserved

In submitting this Bid, it is understood and agreed by bidder that the right is reserved by City of Santa Clarita to reject any and all bids, or part of any bid, and it is agreed that the Bid may not be withdrawn for a period of [ninety (90)] days subsequent to the opening of bids, without the written consent of City of Santa Clarita.

It is also understood and agreed that if the undersigned bidder should withdraw any part or all of his bid within [ninety (90)] days after the bid opening without the written consent of City of Santa Clarita, shall refuse or be unable to enter into this Contract, as provided above, or refuse or be unable to furnish adequate and acceptable Performance Bonds and Labor and Material Payments Bonds, as provided above, or refuse or be unable to furnish adequate and acceptable insurance,

as provided above, he shall forfeit his bid security to the extent of City of Santa Clarita's damages occasioned by such withdrawal, or refusal, or inability to enter into an agreement, or provide adequate security therefor.

It is further understood and agreed that to the extent the defaulting bidder's Bid Bond, Certified Check, Cashier's Check, Treasurer's Check, and/or Official Bank Check (excluding any income generated thereby which has been retained by City of Santa Clarita as provided in [Item x "Bid Security" of the Instructions to Bidders]) shall prove inadequate to fully recompense City of Santa Clarita for the damages occasioned by default, then the undersigned bidder agrees to indemnify City of Santa Clarita and pay over to City of Santa Clarita the difference between the bid security and City of Santa Clarita's total damages, so as to make City of Santa Clarita whole.

The undersigned understands that any material alteration of any of the above or any of the material contained on this form, other than that requested, will render the bid unresponsive.

Performance and Payment Bonding Requirements (Non-Construction)

The Contractor may be required to obtain performance and payment bonds when necessary to protect the City of Santa Clarita's interest.

(a) The following situations may warrant a performance bond:

I. City of Santa Clarita property or funds are to be provided to the contractor for use in performing the contract or as partial compensation (as in retention of salvaged material).

II. A contractor sells assets to or merges with another concern, and the City of Santa Clarita, after recognizing the latter concern as the successor in interest, desires assurance that it is financially capable.

III. Substantial progress payments are made before delivery of end items starts.

IV. Contracts are for dismantling, demolition, or removal of improvements.

(b) When it is determined that a performance bond is required, the Contractor shall be required to obtain performance bonds as follows:

I. The penal amount of performance bonds shall be 100 percent of the original contract price, unless the City of Santa Clarita determines that a lesser amount would be adequate for the protection of the City of Santa Clarita.

II. The City of Santa Clarita may require additional performance bond protection when a contract price is increased. The increase in protection shall generally equal 100 percent of the increase in contract price. The City of Santa Clarita may secure additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) A payment bond is required only when a performance bond is required, and if the use of payment bond is in the City of Santa Clarita's interest.

(d) When it is determined that a payment bond is required, the Contractor shall be required to obtain payment bonds as follows:

I. The penal amount of payment bonds shall equal:

(i) Fifty percent of the contract price if the contract price is not more than $1 million;

(ii) Forty percent of the contract price if the contract price is more than $1 million but not

more than $5 million; or

(iii) Two and one half million if the contract price is increased.

Advance Payment Bonding Requirements

The Contractor may be required to obtain an advance payment bond if the contract contains an advance payment provision and a performance bond is not furnished. The City of Santa Clarita shall determine the amount of the advance payment bond necessary to protect the City of Santa Clarita.

Patent Infringement Bonding Requirements (Patent Indemnity)

The Contractor may be required to obtain a patent indemnity bond if a performance bond is not furnished and the financial responsibility of the Contractor is unknown or doubtful. The City of Santa Clarita shall determine the amount of the patent indemnity to protect the City of Santa Clarita.

Warranty of the Work and Maintenance Bonds

(a) The Contractor warrants to City of Santa Clarita, the Architect and/or Engineer that all materials and equipment furnished under this Contract will be of highest quality and new unless otherwise specified by City of Santa Clarita, free from faults and defects and in conformance with the Contract Documents. All work not so conforming to these standards shall be considered defective. If required by the [Project Manager], the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

(b) The Work furnished must be of first quality and the workmanship must be the best obtainable in the various trades. The Work must be of safe, substantial and durable construction in all respects. The Contractor hereby guarantees the Work against defective materials or faulty workmanship for a minimum period of one (1) year after Final Payment by City of Santa Clarita and shall replace or repair any defective materials or equipment or faulty workmanship during the period of the guarantee at no cost to City of Santa Clarita. As additional security for these guarantees, the Contractor shall, prior to the release of Final Payment, furnish separate Maintenance (or Guarantee) Bonds in form acceptable to City of Santa Clarita written by the same corporate surety that provides the Performance Bond and Labor and Material Payment Bond for this Contract. These bonds shall secure the Contractor's obligation to replace or repair defective materials and faulty workmanship for a minimum period of one (1) year after Final Payment and shall be written in an amount equal to ONE HUNDRED PERCENT (100%) of the CONTRACT SUM, as adjusted (if at all).

40. Clean Air. (a) The Contractor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act, as amended, 42 U.S.C. §§ 7401 et seq. The Contractor agrees to report each violation to the Purchaser and understands and agrees that the Purchaser will, in turn, report each violation as required to assure notification to FTA and the appropriate EPA Regional Office.

(b) The Contractor also agrees to include these requirements in each subcontract exceeding $100,000 financed in whole or in part with Federal assistance provided by FTA.

41. Recovered Materials. The contractor agrees to comply with all the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA), as amended (42 U.S.C. 6962), including but not limited to the regulatory provisions of 40 CFR Part 247, and Executive Order 12873, as they apply to the procurement of the items designated in Subpart B of 40 CFR Part 247.

42. Davis-Bacon and Copeland Anti-Kickback Acts

(a) **Minimum wages** - (I) All laborers and mechanics employed or working upon 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), 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 1(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 paragraph (a)(IV) 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 work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (a)(II) 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.

(II)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, 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 therefore only when the following criteria have been met:

(1) Except with respect to helpers as defined as 29 CFR 5.2(n)(4), the work to be performed by the classification requested is not performed by a classification in the wage determination; and

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

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

(4) With respect to helpers as defined in 29 CFR 5.2(n)(4), such a classification prevails in the area in which the work is performed.

(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, U.S. Department of Labor, 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 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.

(D) The wage rate (including fringe benefits where appropriate) determined pursuant to paragraphs (a)(1)(ii) (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.

(III) 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.

(IV) 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.

(V)(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:

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

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

(3) 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 paragraphs (a)(V) (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 City of Santa Clarita 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 same prime contractor, or any other federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime 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 City of Santa Clarita 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** - (I) 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.

(II)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the City of Santa Clarita 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 section 5.5(a)(3)(i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors.

(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:

(1) That the payroll for the payroll period contains the information required to be maintained under section 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete;

(2) 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;

(3) 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)(II)(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.

(III) The contractor or subcontractor shall make the records required under paragraph (c)(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** - (I) 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 a 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 journeymen 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.

(II) 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.

(III) 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 prime contractor shall be responsible for the compliance by any subcontractor or lower tier 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** - (I) 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).

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

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

43.   Contract Work Hours and Safety Standards

(a) **Overtime requirements** - No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty 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, such 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 $10 for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty 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** - The City of Santa Clarita 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 the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such 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 or subcontractor shall insert in any subcontracts the clauses set forth in paragraphs (a) through (d) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (a) through (d) of this section.

44.   No Obligation by the Federal Government.

(a) The Purchaser 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 Purchaser, Contractor, or any other party (whether or not a party to that contract) pertaining to any matter resulting from the underlying contract.

(b) 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 who will be subject to its provisions.

45.   <u>Program Fraud and False or Fraudulent Statements or Related Acts</u>.

(a) The Contractor acknowledges that the provisions of the Program Fraud Civil Remedies Act of 1986, as amended, 31 U.S.C. § 3801 <u>et</u> <u>seq</u>. and U.S. DOT regulations, "Program Fraud Civil Remedies," 49 C.F.R. 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.

(b) 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(n)(1) on the Contractor, to the extent the Federal Government deems appropriate.

(c) 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 who will be subject to the provisions.

46.   <u>Termination</u>.

(a) Termination for Convenience (General Provision) The City of Santa Clarita may terminate this contract, in whole or in part, at any time by written notice to the Contractor when it is in the Government's best interest. The Contractor shall be paid its costs, including contract close-out costs, and profit on work performed up to the time of termination. The Contractor shall promptly submit its termination claim to City of Santa Clarita to be paid the Contractor. If the Contractor has any property in its possession belonging to the City of Santa Clarita, the Contractor will account for the same, and dispose of it in the manner the City of Santa Clarita directs.

(b) Termination for Default [Breach or Cause] (General Provision) If the Contractor does not deliver supplies in accordance with the contract delivery schedule, or, if the contract is for services, the Contractor fails to perform in the manner called for in the contract, or if the Contractor fails to comply with any other provisions of the contract, the City of Santa Clarita may terminate this contract for default. Termination shall be effected by serving a notice of termination on the contractor setting forth the manner in which the Contractor is in default. The contractor will only be paid the contract price for supplies delivered and accepted, or services performed in accordance with the manner of performance set forth in the contract.

If it is later determined by the City of Santa Clarita that the Contractor had an excusable reason for not performing, such as a strike, fire, or flood, events which are not the fault of or are beyond the control of the Contractor, the City of Santa Clarita, after setting up a new delivery of performance schedule, may allow the Contractor to continue work, or treat the termination as a termination for convenience.

(c) Opportunity to Cure (General Provision) The City of Santa Clarita in its sole discretion may, in the case of a termination for breach or default, allow the Contractor [an appropriately short period of time] in which to cure the defect. In such case, the notice of termination will state the time period in which cure is permitted and other appropriate conditions

If Contractor fails to remedy to City of Santa Clarita's satisfaction the breach or default of any of the terms, covenants, or conditions of this Contract within [ten (10) days] after receipt by Contractor of written notice from City of Santa Clarita setting forth the nature of said breach or default, City of Santa Clarita shall have the right to terminate the Contract without any further obligation to Contractor. Any such termination for default shall not in any way operate to preclude City of Santa Clarita from also pursuing all available remedies against Contractor and its sureties for said breach or default.

(d) Waiver of Remedies for any Breach In the event that City of Santa Clarita elects to waive its remedies for any breach by Contractor of any covenant, term or condition of this Contract, such waiver by City of Santa Clarita shall not limit City of Santa Clarita's remedies for any succeeding breach of that or of any other term, covenant, or condition of this Contract.

(e) Termination for Default (Construction) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract or any extension or fails to complete the work within this time, or if the Contractor fails to comply with any other provisions of this contract, the City of Santa Clarita may terminate this contract for default. The City of Santa Clarita shall terminate by delivering to the Contractor a Notice of Termination specifying the nature of the default. In this event, the City of Santa Clarita may take over the work and compete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the City of Santa Clarita resulting from the Contractor's refusal or failure to complete the work within specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the City of Santa Clarita in completing the work.

The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause if-

(I) the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include: acts of God, acts of the City of Santa Clarita, acts of another Contractor in the performance of a contract with the City of Santa Clarita, epidemics, quarantine restrictions, strikes, freight embargoes; and

(II) the contractor, within [10] days from the beginning of any delay, notifies the City of Santa Clarita in writing of the causes of delay. If in the judgment of the City of Santa Clarita, the delay is excusable, the time for completing the work shall be extended. The judgment of the City of Santa Clarita shall be final and conclusive on the parties, but subject to appeal under the Disputes clauses.

If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the City of Santa Clarita.

47.   Suspension and Debarment.

This contract is a covered transaction for purposes of 49 CFR Part 29. As such, the contractor is required to verify that none of the contractor, its principals, as defined at 49 CFR 29.995, or affiliates, as defined at 49 CFR 29.905, are excluded or disqualified as defined at 49 CFR 29.940 and 29.945.

The contractor is required to comply with 49 CFR 29, Subpart C and must include the requirement to comply with 49 CFR 29, Subpart C in any lower tier covered transaction it enters into.
By signing and submitting its bid or proposal, the bidder or proposer certifies as follows:

The certification in this clause is a material representation of fact relied upon by City of Santa Clarita. If it is later determined that the bidder or proposer knowingly rendered an erroneous certification, in addition to remedies available to City of Santa Clarita, 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 49 CFR 29, 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.

48. <u>Civil Rights</u>. The following requirements apply to the underlying contract:

(a) <u>Nondiscrimination</u> - 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.

(b) <u>Equal Employment Opportunity</u> - The following equal employment opportunity requirements apply to the underlying contract:

(I) <u>Race, Color, Creed, National Origin, Sex</u> - 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 C.F.R. Parts 60 <u>et seq</u>., (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.

(II) <u>Age</u> - 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.

(III) <u>Disabilities</u> - 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 C.F.R. Part 1630, pertaining to employment of persons with disabilities. In addition, the Contractor agrees to comply with any implementing requirements FTA may issue.

(c) 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.

49.   Breaches and Dispute Resolution

Disputes - Disputes arising in the performance of this Contract which are not resolved by agreement of the parties shall be decided in writing by the authorized representative of City of Santa Clarita. This decision shall be final and conclusive unless within [ten (10)] days from the date of receipt of its copy, the Contractor mails or otherwise furnishes a written appeal to the City of Santa Clarita. In connection with any such appeal, the Contractor shall be afforded an opportunity to be heard and to offer evidence in support of its position. The decision of the City of Santa Clarita shall be binding upon the Contractor and the Contractor shall abide be the decision.

Performance During Dispute - Unless otherwise directed by City of Santa Clarita, Contractor shall continue performance under this Contract while matters in dispute are being resolved.

Claims for Damages - Should either party to the Contract suffer injury or damage to person or property because of any act or omission of the party or of any of his employees, agents or others for whose acts he is legally liable, a claim for damages therefor shall be made in writing to such other party within a reasonable time after the first observance of such injury of damage.

Remedies - Unless this contract provides otherwise, all claims, counterclaims, disputes and other matters in question between the City of Santa Clarita and the Contractor arising out of or relating to this agreement or its breach will be decided by arbitration if the parties mutually agree, or in a court of competent jurisdiction within the State in which the City of Santa Clarita is located.

Rights and Remedies - The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the City of Santa Clarita, (Architect) or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

50.   Disadvantaged Business Enterprises.

(a) This contract is subject to the requirements of Title 49, Code of Federal Regulations, Part 26, *Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assistance Programs.* The national goal for participation of Disadvantaged Business Enterprises (DBE) is 10%. The agency's overall goal for DBE participation is **18.3 %.** A separate contract goal **has not** been established for this procurement.

(b) The contractor 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 this DOT-assisted contract. Failure by the contractor 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 City of Santa Clarita deems appropriate. Each subcontract the contractor signs with a subcontractor must include the assurance in this paragraph (*see* 49 CFR 26.13(b)).

(c) The successful bidder/offeror will be required to report its DBE participation obtained through race-neutral means throughout the period of performance.

(d) The contractor is required to pay its subcontractors performing work related to this contract for satisfactory performance of that work no later than 30 days after the contractor's receipt of payment for that work from the City of Santa Clarita. In addition, **the contractor may not hold retainage from its subcontractors.**

(e) The contractor must promptly notify City of Santa Clarita, whenever a DBE subcontractor

performing work related to this contract is terminated or fails to complete its work, and must make good faith efforts to engage another DBE subcontractor to perform at least the same amount of work. The contractor may not terminate any DBE subcontractor and perform that work through its own forces or those of an affiliate without prior written consent of City of Santa Clarita.

51. Incorporation of Federal Transit Administration (FTA) Terms. The preceding provisions include, in part, certain Standard Terms and Conditions required by DOT, whether or not expressly set forth in the preceding contract provisions. All contractual provisions required by DOT, as set forth in FTA Circular 4220.1E, 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 Agreement. The Contractor shall not perform any act, fail to perform any act, or refuse to comply with any City of Santa Clarita requests which would cause City of Santa Clarita to be in violation of the FTA terms and conditions.

B. <u>**TERMS AND CONDITIONS**</u>

The solicitation, proposer's response and the Purchase Order constitute the entire agreement between the vendor and the City of Santa Clarita (City) covering the goods described herein (the "goods"). Time is of the essence.

1. <u>Shipment and Inspection</u>. The terms and routing of shipment shall be as provided on the Purchase Order or as otherwise directed by the City. City may revise shipping instructions as to any goods not then shipped. City shall have the right to inspect any or all of the goods at vendor's place of business or upon receipt by City at City's election, which right shall be exercisable notwithstanding Buyer's having paid for the goods prior to inspection. City, by reason of its failure to inspect the goods, shall not be deemed to have accepted any defective goods or goods which do not conform to the specifications therefor, or to have waived any of City's rights or remedies arising by virtue of such defects or non-conformance. Cost of inspection on deliveries or offers for delivery, which do not meet specifications, will be for the account of the vendor.

2. <u>Risk of Loss</u>. Not withstanding any provision hereof to the contrary, title to, and risk of loss of, the goods shall remain with the vendor until the goods are delivered at the F.O.B. point specified in this Contract, or if no such point is specified, then, when the goods are delivered to the City. However, if the goods are of an inflammable, toxic or otherwise dangerous nature, vendor shall hold City harmless from and against any and all claims asserted against City on account of any personal injuries and/or property damages caused by the goods, or by the transportation thereof, prior to the completion of unloading at City's receiving yard.

3. <u>Warranties</u>. Vendor warrants to and covenants with the City as follows: vendor will deliver to City title to the goods free and clear of all security interest, liens, obligations, restrictions or encumbrances of any kind, nature or description, the goods shall be free from defects in material and/or workmanship; unless otherwise specified on the Purchase Order, the goods shall be new and not used or reconditioned; the goods and their packaging shall conform to the description thereof and/or specifications therefor contained in this Contract. In placing this Contract, City is relying on vendor's skill and judgement in selecting and providing the proper goods for City's particular use. The goods shall be in all respects suitable for the particular purpose for which they are purchased and the goods shall be merchantable. Vendor shall indemnify and save and hold City harmless from and against any and all damages, losses, demands, costs and expenses arising from claims by third parties for property damage, personal injury or other losses or damages arising from vendor's breach of its obligations hereunder.

4. <u>Remedies</u>. In the event of vendor's breach of this Contract, City may take any or all of the following actions, without prejudice to any other rights or remedies available to City by law: (a) require vendor to repair or replace such goods, and upon vendor's failure or refusal to do so, repair or replace the same at vendor's expense: (b) reject any shipment or delivery containing defective or nonconforming goods and return for credit or replacement at vendor's option; said return to be made at vendor's cost and risk: (c) cancel any outstanding deliveries hereunder and treat such breach by vendor as vendor's repudiation of this Contract. In the event of City's breach hereunder, vendor's exclusive remedy shall be vendor's recovery of the goods or the purchase price payable for goods shipped prior to such breach.

5. <u>Force Majeure</u>. For the purposes of this Contract, an event of "force majeure" shall mean any or all of the following events or occurrences, strikes, work stoppages, or other labor difficulties; fires, floods or other acts of God; transportation delays; acts of government or any subdivision or agency thereof; failure or curtailment of power supply in the Pacific Southwest power grid; or any other cause, whether or not similar to the causes or occurrences enumerated above; in all cases, which are beyond the control of the party claiming the occurrence of a force majeure event and which delays, interrupts or prevents such party from performing its obligations under this Contract. Not withstanding any provision hereof to the contrary, the reduction, depletion, shortage, curtailment or cessation of vendor's supplies or reserves or any other supplies or materials of vendor shall not be regarded as an event of force

majeure. The party affected by a force majeure event shall give notice thereof to the other party within ten days following the occurrence thereof and shall apprise the other party of the probable extent to which the affected party will be unable to perform or will be delayed in performing its obligations hereunder. The affected party shall exercise due diligence to eliminate or remedy the force majeure cause and shall give the other party prompt notice when that has been accomplished. Except as provided herein, if performance of this contract by either party is delayed, interrupted or prevented by reason of any event of force majeure, both parties shall be excused from performing hereunder while and to the extent that the force majeure condition exists, after which the parties' performance shall be resumed. Notwithstanding the foregoing, within five days following vendor's declaration of a force majeure event which prevents its full and/or timely delivery of goods hereunder, City may, at its option and without liability (a) require vendor to apportion among its customers the goods available for delivery during the force majeure period; (b) cancel any or all delayed or reduced deliveries; or (c) cancel any outstanding deliveries hereunder and terminate this Contract. If City accepts reduced deliveries or cancels the same, City may procure substitute goods from other sources in which event this contract shall be deemed modified to eliminate vendor's obligation to sell and City's obligation to purchase such substituted goods. After cessation of a force majeure event declared by vendor, vendor shall, at City's option but not otherwise, be obligated to deliver goods not delivered during the force majeure event. After cessation of a force majeure event declared by City, neither party shall be obligated to deliver or purchase goods not so delivered and purchased during the force majeure period.

6.   Patents. It is anticipated that the goods will be possessed and/or used by City. If by reason of any of these acts a suit is brought or threatened for infringement of any patent, trademark, trade name or copyright with regard to the goods, their manufacture or use, vendor shall at its own expense defend such suit and shall indemnify and save and hold City harmless from and against all claims, damages, losses, demands, costs and expenses (including attorney's fees) in connection with such suit or threatened suit.

7.   Compliance with Law. Vendor warrants that it will comply with all federal, state, and local laws, ordinances, rules and regulations applicable to its performance under this Contract, including, without limitation, the Fair Labor Standards Act of 1938, as amended, the Equal Employment Opportunity Clause prescribed by Executive Order 11246 dated September 24, 1965 as amended, and any rules, regulations or orders issued or promulgated under such Act and Order. Vendor shall indemnify and save and hold City from and against any and all claims, damages, demands, costs and losses which the City may suffer in the event that vendor fails to comply with said Act, Order, rules, regulations or orders. Vendor further warrants that all goods sold hereunder will comply with and conform in every respect to the standards applicable to the use of such goods under the Williams-Steiger Occupational Safety and Health Act of 1970, as amended, and any regulations and orders issued thereunder. Any clause required by any law, ordinance, rule or regulation to be included in a contract of the type evidenced by this document shall be deemed to be incorporated herein.

8.   Reports, Artwork, Designs etc.:
(a) If the goods are to be produced by vendor in accordance with designs, drawings or blueprints furnished by City, vendor shall return same to City upon completion or cancellation of this Contract. Such designs and the like shall not be used by vendor in the production of materials for any third party without City's written consent. Such designs and the like involve valuable property rights of City and shall be held confidential by vendor.

(b) If the Contract results in the creation of artwork, designs or written products, including but not limited to, books, reports, logos, pictures, drawings, plans, blueprints, graphs, charts, brochures, analyses, photographs, musical scores, lyrics, will be considered works for hire and the contractor expressly transfers all ownership and intellectual property rights including copyrights to the City by signing the contract. Such works and the like shall not be used by vendor in the conduct of any business with any third party without the City's written consent.

(c) Unless otherwise agreed herein, vendor at its cost shall supply all materials, equipment, tools and

facilities required to perform this Contract. Any materials, equipment, tools, artwork, designs or other properties furnished by City or specifically paid for by City shall be City's property. Any such property shall be used only in filling orders from City and may on demand be removed by City without charge. Vendor shall use such property at its own risk, and shall be responsible for all loss of or damage to the same while in vendor's custody. Vendor shall at its cost store and maintain all such property in good condition and repair. City makes no warranties of any nature with respect to any property it may furnish to vendor hereunder.

9. <u>Governing Law</u>. The Purchase Order and this Contract between the parties evidenced hereby shall be deemed to be made in the State of California and shall in all respects be construed and governed by the laws of that state.

10. <u>Miscellaneous</u>.
(a) The waiver of any term, condition or provision hereof shall not be construed to be a waiver of any other such term, condition or provision, nor shall such waiver be deemed a waiver of a subsequent breach of the same term, condition or provision.

(b) Stenographic and clerical errors, whether in mathematical computations or otherwise, made by City on this Contract or any other forms delivered to vendor shall be subject to correction.

(c) On the issue of primacy in disagreements in bid responses, words shall hold over numbers and unit prices shall hold over extended prices.

(d) City may, upon notice of vendor and without liability to City, cancel this Contract and any outstanding deliveries hereunder, (1) as to standard products of vendor not then shipped hereunder, at any time prior to shipment, or (2) if (A) a receiver or trustee is appointed to take possession of all or substantially all of vendor's assets, (B) vendor makes a general assignment for the benefit of creditors, or (C) any action or proceeding is commenced by or against vendor under any insolvency or bankruptcy act, or under any other statute or regulation having as its purpose the protection of creditors, or (D) vendor becomes insolvent or commits an act of bankruptcy. If an event described in (2) of this section occurs. City may at City's sole election pay vendor its actual out-of-pocket costs to date of cancellation, as approved by City, in which event the goods shall be the property of City and vendor shall safely hold the same subject to receipt of City's shipping instructions.

C. **STATEMENT OF WORK AND FORMAT**

The City of Santa Clarita (City) requests proposals for the following purpose according to the terms and conditions attached. In the preparation of this Request for Proposal the words "Bidder", "Contractor", and "Consultant" are used interchangeably.

1. Purpose: The City of Santa Clarita is seeking to implement Transit Information Network (TIN) consisting of a Automatic Vehicle Location (AVL) system, Computer Aided Dispatch (CAD), electronic stop annunciators, automatic passenger counters, real-time customer information display units and a integrated voice and data communication system.

2. Proposal Schedule: Following is a tentative schedule of events:

EVENT	DATE
Solicitation advertisement	August 26, 2007
Pre-bid conference	Tuesday September 11, 2007
Last day for questions	October 18, 2007
Return of proposals	November 1, 2007
Evaluations of proposals	November 2-9, 2007
Interviews	Week of November 12, 2007
Best and final offers (if exercised)	December 3, 2007
Recommendation to awarding body	January 8, 2008
Contract award	January 8, 2008
Project completion date	Fall 2009

3. Introduction/Background:

Since its inception in August 2001, City of Santa Clarita Transit has been one of the fastest growing public transportation providers in Los Angeles County growing from 600,000 passengers in its first year of operation to carrying more than 3.7 million passengers annually. The City of Santa Clarita Transit provides fixed-route, local paratransit and commuter express bus service, as well as ADA paratransit service under contract with Los Angeles Access Services Inc. The City of Santa Clarita Transit's primary service area is situated within the "V" formed by two freeways, the Golden State Freeway (I-5) to the west and the Antelope Valley Freeway (SR-14) to the east. City of Santa Clarita Transit also provides service west of Interstate 5, in the unincorporated communities of Castaic, Val Verde, and Stevenson Ranch. The commuter service links the Santa Clarita Valley with employment centers in the San Fernando Valley, (Sylmar, Van Nuys, and Warner Center), Century City, Downtown Los Angeles, and the Antelope Valley. The Santa Clarita Transit fleet consists of 73 revenue vehicles and six supervisor and support vehicles.

In 2006, the City completed a Transportation Development Plan that estimated City of Santa Clarita Transit will need to grow by 58 percent over the next ten years to keep pace with new development and demand. Ridership continues to grow and is expected to reflect the continuing population expansion in Santa Clarita

4. Objective(s)/Work Products:

The overall goal of this project is to develop and install technology that will allow the City to better manage its fixed-route and paratransit fleet operations and improve customer service. When ever possible this system shall use proven technology to achieve the program goals. The final system shall include but is not limited to all hardware, software, installation, and training specified in this document and any additional items necessary to successfully implement and use the proposed system.

5.   Work Statement: Describe the scope of work to be performed.

See Technical Specifications in Attachment A.

6.   Required Qualifications:

The City shall evaluate all technical proposals to determine which meet the minimum requirements, without regard to price. The technical proposals will first be evaluated by using the minimum requirements criteria. The minimum qualifications will be an initial cutoff point for assessing minimum levels of financial capabilities. Compliance with each standard is required. The minimum requirements will be evaluated on a pass/fail basis. A single fail score on any of the minimum requirements shall render the proposal as not acceptable and eliminated from further consideration. This evaluation may, at the City's discretion, be augmented by verbal or written requests for clarification, or additional information as necessary to determine whether the technical requirements can be met. The minimum requirements are:

1.   Proposer shall have completed three implementations of transit fleet management systems similar to TIN that include integrated voice and data communication, CAD, and AVL subsystems over the past five years.
2.   Proposer shall demonstrate the ability to finance at least one million dollars as evidenced through financial documentation or letter of credit availability.
3.   Proposer shall demonstrate the ability to secure the requisite performance and Subcontractor Payment Bonds.

7.   Time Schedule:

The bidder shall include a reasonable timeline highlighting all milestones for the completion of this project. Based on similar projects undertaken by peer agencies, we estimate the total project timeline to span 18 to 24 months.

The City has identified the following milestones for this project:

Completion of Preliminary Design Review
Completion of Final Design Review
Completion of Factory Acceptance Test
Installation of Communication Sub-System
Installation of Computer and Dispatch Subsystems
Completion of First Article Test
Completion of Bus installations
Completion of Traveler Information System
Completion of AVA
Completion of Training and Manuals
Completion of Report Module
Completion of Acceptance Testing
Close Out

8.   Response Submittal Requirements.

(a) CONTENTS OF PROPOSAL

Submitted proposals must follow the format outlined below and all requested information must be supplied. Failure to submit proposals in the required format will result in elimination from proposal evaluation.

FORMAT
Each proposal must be submitted in two parts:

Part I must relate to the Technical Proposal
Part II must relate to the Cost Proposal

PART I - TECHNICAL PROPOSAL

Cover Letter - Must include the name, address, and telephone number of the company, and be signed by the person or persons authorized to represent the firm. The forms at the end of Section C of this RFP will be included in Sections 12, 13 and 17 as appropriate.

Table of Contents - Clearly identify material contained in the proposal by section and page number.

Introduction (Section 1) - Contents to be determined by contractor.

Project Analysis (Section 2) - Provide an explanation and interpretation of the problem areas described in this RFP.

Objective, Scope, Nature of Proposed Program (Section 3) - Describe the overall approach to the problem, including the objective and scope of work to be performed by the contractor

Work Program (Section 4) - Describe the work or tasks to be performed, including sequence of work activities, dependencies, and significant completion dates for major products.

System Exceptions (Section 5) - Identify any requirements or requested features that will not be available in the proposed system.

Methodology (Section 6) - Describe the methodology and techniques to be employed.

Project Management (Section 7) - Describe the proposed management structure, organization of contracting group, facilities available, and any tools and techniques to be used to ensure this project is completed on time and within budget.

Assigned Personnel (Section 8) - Identify the principals having primary responsibility for implementing the proposal. Discuss their professional and academic backgrounds. Provide a summary of similar work they have previously performed. List the amount of time, on a continuous basis, that each principal will spend on this project and the amount of time each of the assigned personnel will spend on-site. Describe the responsibilities and capacity of the technical personnel involved. Substitution of project manager and/or lead personnel will not be permitted without prior written approval of the City and may result in the assessment of a disincentive.

Schedule (Section 9) - List the proposed schedule of activities, including labor hours and calendar time requirements, by product.

Program Monitoring (Section 10) - Describe the procedures to be utilized during the project, including a diagram of workflow, interface points, and major products.

City Resources (Section 11) - Describe and City services and staff resources needed to supplement contractor activities to achieve identified objective(s).

Subcontractors (Section 12) - If subcontractors are to be used, identify each of them in the proposal. Describe the work to be performed by them and the number of hours or the percentage of time they will devote to the project. Provide a list of their assigned staff, their qualifications, references, relationship to project management, schedule, costs, and hourly rates.

Contractor Capability and References (Section 13) - Provide a summary of the firm's relevant background experience. Discuss the applicability of such experience to this RFP. Include examples of projects completed for other similar agencies that are of a similar nature and a contact person for each of those clients.

Optional interfaces (Section 14) – Describe the work, hardware and/or tasks to be performed, including sequence of work activities, dependencies, and significant completion dates for major products.

Alternative Proposals (Section 15) - Provide statements of alternative proposals, if any, labled "Alternative Proposal Number One, Alternative Proposal Number Two," etc. The format of each alternative proposal submitted may be abbreviated to address just the following:
   a. Work Program
   b. Methodology
   c. Assigned Personnel

Conflict of Interest (Section 16) - Address possible conflicts of interest with other clients affected by actions performed by the firm on behalf of the City. Although the bidder will not be automatically disqualified by reason of work performed for other parties, the City reserves the right to consider the nature and extent of such work in evaluating the proposal.

Additional Data (Section 17) - Provide other essential data that may assist in the evaluation of this proposal.

PART II - COST PROPOSAL

The cost proposal should be a separate and detachable item of proposal response.

Name and Address
The Cost Proposal must list the name and complete address of the bidder in the upper, left-hand corner.

Cost Proposal
The Cost/Price format for the proposal must be as follows:

      Tasks   Price

Total cost must be clearly indicated at the end of the Cost Proposal.

      (b) PROPOSAL SUBMISSION

All proposals must be submitted according to specifications set forth in Section 8 (a) - Contents of Proposal and this section. Failure to adhere to these specifications may be cause for rejection of proposal.

   I.   Signature. An authorized representative of the bidder should sign all proposals.

   II.   Due Date. The proposer shall submit (3) complete copies of the proposal in a sealed envelope, plainly marked in the upper, left-hand corner with the name and address of the bidder and the words "Request for Proposal # PS-07-08-08." All proposals must be received before 11:00 a.m., November 1, 2007, and should be directed to:

            Purchasing
            City of Santa Clarita
            23920 Valencia Blvd. Ste. 245
            Santa Clarita, CA 91355-2196

Late bids/proposals will not be accepted. Any correction or resubmission done by the proposer will not extend the submittal due date.

III.   <u>Addenda</u>. City may modify the proposal and/or issue supplementary information or guidelines relating to the RFP during the proposal preparation period of August 29, 2007 to October 18, 2007.

IV.   <u>Rejection</u>. A proposal may be deemed non-responsive and may be immediately rejected if:
- It is received at any time after the exact date and time set for receipt of proposals and/or;
- It is not prepared in the format prescribed and/or;
- It is signed by an individual not authorized to represent the firm.

V.   <u>Disposition of Proposals</u>. The City reserves the right to reject any or all proposals. All responses become the property of the City. One copy of the proposal shall be retained for City files. Additional copies and materials will be returned only if requested and at the bidder's expense.

VI.   <u>Proposal Changes</u>. Once submitted, proposals, including the composition of the contracting team, cannot be altered without the prior written consent of the City. All proposals constitute an offer to the City and may not be withdrawn for a period of ninety (90) days after the last day to accept proposals.

VII.   <u>Proposal Evaluation and Contractor Selection</u>. An evaluation panel comprised of representatives from the requesting department will evaluate all proposals to determine responsiveness to the RFP. The panel will recommend the selection of the responsible Proposer whose proposal is most advantageous to the City. Accordingly, the City may not necessarily make an award to the Proposer with the highest technical ranking nor award to the Proposer with the lowest Price Proposal if doing so would not be in the overall best interest of the City.

The overall criteria listed below are listed in relative order of importance. As proposals are considered by the City to be more equal in their technical merit, the evaluated cost or price becomes more important so that when technical proposals are evaluated as essentially equal, cost or price may be the deciding factor.

Technical Capabilities 50 points

    A.   Voice radio interface or alternative: 5 points

    B.   Data radio or alternative: 5 points

    C.   Computer aided dispatch features: 10 points

    D.   Passenger information system: 10 points

    E.   Onboard vehicle system: 4 points

    F.   Scheduling system: 5 points

    G.   Interface to RouteMatch or alternative: 3 points

    H.   UFS, RIITS, RTA, video system, and ATMS interface: 3 points

    I.   Manuals and training: 2 points

    J.   Implementation phasing and testing plan: 3 points

Management Approach 25 points

K.   Project experience of similar projects: 10 points

L.   Assigned personnel project experience, proposed staffing levels: 5 points

M.   Proposed schedule, schedule performance on previous projects: 3 points

N.   Proposed onsite presence: 3 points

O.   Warranty, warranty support, quality control: 4 points

Price 25 points

Lowest adjusted price. (Prices must be adjusted to be comparable): 25 points.

During the selection process, the evaluation panel may wish to interview bidders with scores above a natural break. The City reserves the right to make a selection solely on the basis of the proposals without further contact. The City may exercise its option to conduct "best and final" proposals from the top scoring firms above a natural beak.

DESIGNATION OF SUBCONTRACTORS

Transit Information Network
RFP# PS-07-08-08
City of Santa Clarita, California

Listed below are the names and locations of the places of business of each subcontractor, supplier, and vendor who will perform work or labor or render service in excess of ½ of 1 percent, or $10,000 (whichever is greater) of the prime contractor's total bid: DBE status, age of firm and annual gross receipts are required if sub contractor is participating as a DBE.

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

DESIGNATION OF SUBCONTRACTORS

Transit Information Network
RFP# PS-07-08-08
City of Santa Clarita, California

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

DESIGNATION OF SUBCONTRACTORS

Transit Information Network
RFP# PS-07-08-08
City of Santa Clarita, California

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Subcontractor	DBE STATUS:	Dollar Value of Work
Age of firm:	Certifying Agency:	Annual Gross Receipts:
Location and Place of Business		
Bid Schedule Item Nos:	Description of Work	
License No.	Exp. Date: / /	Phone ( )

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

<u>REFERENCES</u>

The following are the names, addresses, and telephone numbers of three public agencies for which BIDDER has performed similar work within the past 3 years:

1. _____
   Name and Address of Owner / Agency

   _____
   Name and Telephone Number of Person Familiar with Project

   _____
   Contract Amount   Type of Work   Date Completed

2. _____
   Name and Address of Owner / Agency

   _____
   Name and Telephone Number of Person Familiar with Project

   _____
   Contract Amount   Type of Work   Date Completed

3. _____
   Name and Address of Owner / Agency

   _____
   Name and Telephone Number of Person Familiar with Project

   _____
   Contract Amount   Type of Work   Date Completed

The following are the names, addresses, and telephone numbers of all brokers and sureties from whom BIDDER intends to procure insurance bonds:

_____

_____

_____

TITLE 49, CODE OF FEDERAL REGULATIONS, PART 29
DEBARMENT AND SUSPENSION CERTIFICATION

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

The bidder under penalty of perjury, certified that except as noted below, he/she or any person associated therewith in the capacity of owner, partner, director, office manager:

is not currently under suspension, debarment, voluntary exclusion or determination of ineligibility by any federal AGENCY;

has not been suspended, debarred, voluntarily excluded, or determined ineligible by any federal AGENCY within past three years;

does not have a proposed debarment pending; and

has not been indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

_____

_____

_____

_____

Exceptions will not necessarily result in denial of award, but will be considered in determining bidders' responsibility. For any exception noted above, indicate below to whom it applies, initialing AGENCY, and dates of action.

_____

_____

_____

_____

NOTE: Providing false information may result in criminal prosecution or administrative sanctions.

The above certification is part of the Proposal. Signing this Proposal on the signature portion thereof shall also constitute signature of this Certification.

EQUAL EMPLOYMENT OPPORTUNITY CERTIFICATION

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

This bidder _____, proposed subcontractor _____, hereby certifies that he has _____, has not _____, participated in a previous contract or subcontract subject to the equal opportunity clause, as required by Executive Orders 10925.11114, or 11246, and that he has _____, has not _____, filed with the Joint Reporting Committee, and Director of Office of Federal Contract Compliance, a Federal Government contracting or administering AGENCY, or the former President's Committee on Equal Employment Opportunity, all reports that are under the applicable filing requirements.

Company: _____

By: _____

Title: _____

Date: _____

Note: The above certification is required by the Equal Employment Opportunity of the Secretary of Labor (41 CFR 60-1.7(b)(1)), and must be submitted by bidders and proposed subcontractors only in connection with contracts and subcontracts which are subject to the equal opportunity clause as set forth in 41 CFR 60-1.5, (Generally only contracts or subcontracts of $10,000 or under are exempt.)

Currently, the Standard Form 100 (EEO-1) is the only report required by the Executive Orders or their implementing regulations.

Proposed prime CONTRACTORS and subcontractors who have participated in a previous contract or subcontract subject to the Executive Orders and have not filed the required reports should note that 41 CFR 60-1.7(b)(1) prevents the award of contracts and subcontracts unless such CONTRACTOR submits a report covering the delinquent period or such other period specified by the Federal Highway Administration or by the Director, Office of Federal Contract Compliance, U.S. Department of Labor.

BID SECURITY FORMS FOR CHECK OR BOND TO ACCOMPANY BID

NOTE: The following form shall be used in case check accompanies bid.

Accompanying this Proposal is a *certified/cashier's check payable to the order of the City of Santa Clarita for: _____ dollars ($_____), this amount being not less than ten percent (10%) of the total amount of the bid. The proceeds of this check shall become the property of said AGENCY provided this Proposal shall be accepted by said AGENCY through action of its legally constituted contracting authorities, and the undersigned shall fail to execute a contract and furnish the required bonds within the stipulated time; otherwise, the check shall be returned to the undersigned.

Project Name: Transit Information Network

_____
Bidder's Signature

_____
CONTRACTOR

_____
Address

_____
City, State, Zip Code

* Delete the inapplicable work.

_____

NOTE: If the bidder desires to use a bond instead of a check, the following form shall be executed. The sum of this bond shall be not less than ten percent (10%) of the total amount of the bid.

PROPOSAL GUARANTEE
BID BOND

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

KNOW ALL MEN BY THESE PRESENTS that _____ ,as BIDDER, and _____ , as SURETY, are held and firmly bound unto the City of Santa Clarita, as AGENCY, in the penal sum of _____ dollars ($_____), which is ten percent (10%) of the total amount bid by BIDDER to AGENCY for the above-stated project, for the payment of which sum, BIDDER and SURETY agree to be bound, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas BIDDER is about to submit a bid to AGENCY for the above-stated project, if said bid is rejected, or if said bid is accepted and the contract is awarded and entered into by BIDDER in the manner and time specified, then this obligation shall be null and void, otherwise it shall remain in full force and effect in favor of AGENCY.

IN WITNESS WHEREAS, the parties hereto have set their names, titles, hands, and seals, this

_____ day of _____, 20__.

BIDDER _____

_____

_____

SURETY* _____

_____

_____

Subscribed and sworn to this _____ day of _____, 20__.

NOTARY PUBLIC _____

*Provide BIDDER and SURETY name, address, and telephone number and the name, title, address, and telephone number for authorized representative.

IMPORTANT - Surety Companies executing Bonds must appear on the Treasury Department's most current list (Circular 570, as amended) and be authorized to transact business in the State where the project is located.

NON-COLLUSION AFFIDAVIT

**Transit Information Network
RFP# PS-07-08-08**

City of Santa Clarita, California

<u>TO BE EXECUTED BY EACH BIDDER OF A PRINCIPAL CONTRACT</u>

STATE OF CALIFORNIA   )
                                 } §

COUNTY OF LOS ANGELES   )

_____, being first duly sworn, deposes and says that he or she is ____ of ____ the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that 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, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that 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, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid."

JURAT

State of California
County of _____

Subscribed and sworn to (or affirmed) before me on

this _____ day of _____, 20___,

by _____

personally known to me or proved to me on the basis of satisfactory evidence to be the person (s) who appeared before me.

(SEAL)   Signature

_____

BIDDER'S QUESTIONNAIRE

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

If the bidder has answered the questionnaire within the past year and there are no significant changes in the information requested, then the bidder need not file a new questionnaire. If there are changes, indicate those changes. Should the space provided not be adequate, so indicate and complete information on a separate page(s) and attach hereto.

1. Submitted by: _____ Telephone:_____
   Principal Office Address: _____

2. Type of Firm: _____
   Corporate:_____Other:_____
   Individual: _____
   Partnership: _____

3a. If a corporation, answer these questions:
   Date of Incorporation: _____State of Incorporation: _____
   President's Name: _____
   Vice-President's Name: _____
   Secretary or Clerk's Name: _____
   Treasurer's Name: _____

3b. If a partnership, answer these questions:
   Date of organization: _____State Organized in: _____

   Name of all partners holding more than a 10% interest: _____

   _____ _____ _____
   _____ _____ _____
   _____ _____ _____

   Designate which are General or Managing Partners.

4. Name of person holding CONTRACTOR's license: _____
   License number: _____ Class: _____Expiration Date: _____

BIDDER'S QUESTIONNAIRE
(cont'd)

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

5.   CONTRACTOR's Representative: _____
     Title: _____
     Alternate: _____
     Title: _____

6.   List the major construction projects your organization has in progress as of this date:

     Owner: (A) _____ (B)   _____
     Project Location: _____   _____
     Type of Project: _____   _____

CERTIFICATION OF NON-SEGREGATED FACILITIES

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

The CONTRACTOR certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The CONTRACTOR certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The CONTRACTOR agrees that a breach of this certification is a violation of the Equal Opportunity clause in this Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms, and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. The CONTRACTOR agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding $10,000 which are not exempt from the provisions of the Equal Opportunity clause, and that he will retain such certifications in his files.

_____

CONTRACTOR

Required by the May 19, 1967 order on Elimination of Segregated Facilities, by the Secretary of Labor – 32 F.R. 7439, May 19, 1967 (F.R. Vol. 33, No. 33 – Friday, February 16, 1968 – p. 3065).

BIDDER DBE INFORMATION
Transit Information Network
RFP# PS-07-08-08

This information may be submitted with your bid proposal. If it is not, and you are the apparent low bidder or the second or third low bidder, it must be submitted and received by the administering agency no later than the time specified in the special provisions. Failure to submit the DBE information will be grounds for finding the proposal nonresponsive.

Bidder's Name:_____   **Bid Amount:**_____

Name of Person Completing Form:_____   **Bid Opening Date:**_____

    Name:_____   **DBE Goal From Contract:** __None in this Contract_____

    Phone No._____   **Bidder's DBE Certification No. (If applicable):**_____

IMPORTANT

All DBE's must be certified by Caltrans at the time of bid. If the DBE goal is not met, the bid will be considered non-responsive unless the bidder submits information to establish that a good faith effort to meet the goal has been made. If the good faith effort information is not included with the bid, the bidder has until 5:00 p.m. on the 4th day not including Saturday, Sunday, or legal holidays following the bid opening to submit this information to the AGENCY.

Bid Item No.	Item of Work and Description to be subcontracted or Materials to be Provided (2)	DBE Certificate No. (4)	Name of DBE (4) *(Include address and Phone Number)*	Dollar Amount of DBE (3)

Important: Identify all DBE firms being claimed for credit, regardless of tier. Copies of the DBE quotes are required. Names of the first tier DBE subcontractors and their respective item(s) of work listed above shall be consistent, where applicable, with the names and items of work in the "Designation of Subcontractors" submitted with your bid pursuant to Section 4104 of the Public Contract Code.

1. DBE prime contractors shall enter their DBE certification number. DBE prime contractors shall indicate all work to be performed by its own forces
2. If 100% of a bid item is not to be performed or furnished by a DBE, describe the exact portion of the item to be performed or furnished by the DBE
3. See Section G "Disadvantaged Business Enterprise" to determine the credit allowed for DBE firms.
4. DBEs must be certified on the date bids are opened.

Total Claimed Participation $ _____

_____ %

Signature of Bidder: _____

Date: _____

D.   *****SAMPLE*****

CAPITAL IMPROVEMENT PROJECT AGREEMENT

Contract Number _____

Transit Information Network

This AGREEMENT is made and entered into for the above-stated project this ____ day of _____, 20___, BY AND BETWEEN the City of Santa Clarita, as CITY, and ▮▮▮▮, as CONTRACTOR.

CITY and CONTRACTOR have mutually agreed as follows:

ARTICLE I

That contract documents for the aforesaid project shall consist of the Notice Inviting Bids, Instructions to Bidders, Proposal, General Specifications, Standard Specifications, Special Provisions, Plans, and all referenced specifications, details, standard drawings, special drawings, appendices and City's Labor Compliance Program; together with this AGREEMENT and all required bonds, insurance certificates, permits, notices, and affidavits; and also including any and all addenda or supplemental agreements clarifying or extending the work contemplated as may be required to insure its completion in an acceptable manner. All of the provisions of said AGREEMENT documents are made a part hereof as though fully set forth herein.

ARTICLE II

For and in consideration of the payments and agreements to be made and performed by CITY, CONTRACTOR agrees to furnish all materials and perform all work required for the above-stated project, and to fulfill all other obligations as set forth in the aforesaid contract documents.

ARTICLE III

CONTRACTOR agrees to receive and accept the prices set forth in the Proposal as full compensation for furnishing all materials, performing all work, and fulfilling all obligations hereunder. Said compensation shall cover all expenses, losses, damages, and consequences arising out of the nature of the work during its progress or prior to its acceptance including those for well and faithfully completing the work and the whole thereof in the manner and time specified in the aforesaid contract documents; and also including those arising from actions of the elements, unforeseen difficulties or obstructions encountered in the prosecution of the work, suspension or discontinuance of the work, and all other unknowns or risks of any description connected with the work.

ARTICLE IV

CITY hereby promises and agrees to employ, and does hereby employ, CONTRACTOR to provide the materials, do the work, and fulfill the obligations according to the terms and conditions herein contained and referred to, for the prices aforesaid, and hereby contracts to pay the same at the time, in the manner, and upon the conditions set forth in the contract documents.

ARTICLE V

City and its respective elected and appointed boards, officials, officers, agents, employees, and volunteers (individually and collectively, "Indemnitees") shall have no liability to CONTRACTOR or any other person for, and CONTRACTOR shall indemnify, defend, protect, and hold harmless Indemnitees from and against, any and all liabilities, claims, actions, causes of action, proceedings, suits, damages, judgments, liens, levies, costs, and expenses of whatever nature, including reasonable attorney's fees and disbursements (collectively, "Claims"), which Indemnitees may suffer or incur or to which Indemnitees may become subject by reason of or arising out of any injury to or death of any person(s), damage to property, loss of use of property, economic loss, or otherwise occurring as a result of or allegedly caused by the CONTRACTOR'S performance of or

failure to perform any services under this Agreement, or by the negligent or willful acts or omissions of CONTRACTOR, its agents, officers, directors, or employees, committed in performing any of the services under this Agreement.

If any action or proceeding is brought against Indemnitees by reason of any of the matters against which CONTRACTOR has agreed to indemnify Indemnitees as provided above, CONTRACTOR, upon notice from City, shall defend Indemnitees at its expense by counsel acceptable to City, such acceptance not to be unreasonably withheld. Indemnitees need not have first paid for any of the matters to which Indemnitees are entitled to indemnification in order to be so indemnified. The limits of the insurance required to be maintained by CONTRACTOR in this Agreement shall not limit the liability of CONTRACTOR hereunder. The provisions of this section shall survive the expiration or earlier termination of this agreement.

The provisions of this section do not apply to Claims occurring as a result of the City's active negligence or acts of omission.

ARTICLE VI

CONTRACTOR affirms that the signatures set forth hereinafter in execution of this AGREEMENT represent all individuals, firm members, partners, joint venturers, or corporate officers having principal interest herein.

ARTICLE VII

Nature of Relationship. CONTRACTOR shall not be subject to day-to-day supervision and control by CITY employees or officials. CONTRACTOR shall perform services in accordance with the rules, regulations and policies of CITY respecting such services, and in accordance with appropriate standards of professional conduct, if any, applicable to the services provided. CITY shall not be responsible for withholding any payroll or other taxes on behalf of CONTRACTOR. It is understood and agreed that the CONTRACTOR is, and at all times shall be, an independent CONTRACTOR and nothing contained herein shall be construed as making the CONTRACTOR, or any individual whose compensation for services is paid by the CONTRACTOR, an agent or employee of the CITY, or authorizing the CONTRACTOR to create or assume any obligation of liability for or on behalf of the CITY.

ARTICLE VIII

CONTRACTOR shall maintain and submit certificates of all applicable insurance including, but not limited to, the following and as otherwise required by law. The terms of the insurance policy or policies issued to provide the above insurance coverage shall provide that said insurance may not be amended or canceled by the carrier, for non-payment of premiums or otherwise, without thirty (30) days prior written notice of amendment or cancellation to the CITY. In the event the said insurance is canceled, the CONTRACTOR shall, prior to the cancellation date, submit to the City Clerk new evidence of insurance in the amounts established.

Liability Insurance

During the entire term of this agreement, the CONTRACTOR agrees to procure and maintain General Liability insurance at its sole expense to protect against loss from liability imposed by law for damages on account of bodily injury, including death therefrom, suffered or alleged to be suffered by any person or persons whomsoever, resulting directly or indirectly from any act or activities, errors or omissions, of the CITY, or CONTRACTOR or any person acting for the CITY, or under its control or direction, and also to protect against loss from liability imposed by law for damages to any property of any person caused directly or indirectly by or from acts or activities of the CITY, or CONTRACTOR or any person acting for the CITY, or under its control or direction. Such public liability and property damage insurance shall also provide for and protect the CITY against incurring any legal cost in defending claims for alleged loss. Such General, Public and Professional liability and property damage insurance shall be maintained in full force and effect throughout the term of the AGREEMENT and any extension thereof in the amount indicated above or the following minimum limits:

A combined single limit liability policy in the amount of $1,000,000 or a commercial general liability policy with a $1,000,000 occurrence limit and a $2,000,000 aggregate limit will be considered equivalent to the required minimum limits.

All of such insurance shall be primary insurance and, shall name the City of Santa Clarita as additional insured. A Certificate of Insurance and an additional insured endorsement (for general and automobile liability), evidencing the above insurance coverage with a company acceptable to the City's Risk Manager shall be submitted to City prior to execution of this Agreement on behalf of the City.
If the operation under this Agreement results in an increased or decreased risk in the opinion of the City Manager, then the CONTRACTOR agrees that the minimum limits herein above designated shall be changed accordingly upon request by the City Manager.

The CONTRACTOR agrees that provisions of this paragraph as to maintenance of insurance shall not be construed as limiting in any way the extent to which the CONTRACTOR may be held responsible for the payment of damages to persons or property resulting from the CONTRACTOR's activities or the activities of any person or persons for which the CONTRACTOR is otherwise responsible.

Worker's Compensation Insurance

The CONTRACTOR shall procure and maintain, at its sole expense, Worker's Compensation Insurance in the amount of $1,000,000 per occurrence or in such amount as will fully comply with the laws of the State of California and which shall indemnify, inure and provide legal defense for both the CONTRACTOR and the CITY against any loss, claim or damage arising from any injuries or occupational diseases happening to any worker employed by the CONTRACTOR in the course of carrying out the work within the AGREEMENT. Such insurance shall also contain a waiver of subrogation naming the City of Santa Clarita.

Automotive Insurance

The CONTRACTOR shall procure and maintain, at its sole expense, throughout the term of this AGREEMENT, and any extension thereof, public liability and property damage insurance coverage for automotive equipment with coverage limits of not less than $1,000,000 combined single limit. All such insurance shall be primary insurance and shall name the City of Santa Clarita as an additional insured.

Fire and Extended Coverage Insurance (Services involving real property only)

CONTRACTOR also agrees to procure and maintain, at its sole expense, during the term of this Agreement, and any extension thereof, a policy of fire, extended coverage and vandalism insurance.

ARTICLE IX

Pursuant to Senate Bill 542, chaptered in 1999, the Employment Development Department (EDD) of the State of California requires that a W-9 Form be filed by all vendors for all AGREEMENTS entered into with the City that meet or exceed $600 in value. CONTRACTOR agrees to complete all required forms necessary to comply with EDD regulations.

ARTICLE X

Term

This AGREEMENT shall be effective for a period beginning on the date shown in the Notice to Proceed, and ending on 35 days after the date of recordation of the Notice of Completion unless sooner terminated.

Modification/Termination

No modification, amendment or other change in this AGREEMENT or any provision hereof shall be effective for any purpose unless specifically set forth in writing and signed by duly authorized representatives of the parties hereto. This AGREEMENT may be terminated with or without cause by CITY giving CONTRACTOR thirty (30)

days advance written notice. Any reduction of services shall require thirty (30) days advance written notice unless otherwise agreed in writing between CONTRACTOR and CITY. In the event of termination, CONTRACTOR shall be entitled to compensation for all satisfactory services completed and materials provided to the date of the notice of termination.

Non-Effect Waiver

CONTRACTOR's or CITY's failure to insist upon the performance of any or all of the terms, covenants, or conditions of this Agreement, or failure to exercise any rights or remedies hereunder, shall not be construed as a waiver or relinquishment of the future performance of any such terms, covenants, or conditions, or of future exercise of such rights or remedies, unless otherwise provided for herein.

Severability

In the event that any one or more of the provisions contained in this AGREEMENT shall for any reason be held to be unenforceable in any respect by a court of competent jurisdiction, such holding shall not affect any other provisions of this AGREEMENT, and the AGREEMENT shall then be construed as if such unenforceable provisions are not a part hereof.

Governing Law

This AGREEMENT shall be construed and interpreted and the legal relations created thereby shall be determined in accordance with the laws of the State of California.

Compliance with Law

CONTRACTOR shall comply with all applicable laws, ordinances, codes, and regulations of the federal, state, and local government, including City's Labor Compliance Program (LCP). CONTRACTOR shall comply with all aspects of the National Pollutant Discharge Elimination System ("NPDES") in order to prevent pollution to local waterways. Failure to implement NPDES Requirements shall result in project delays through City issued Stop Work Notices and/or fines levied against the CONTRACTOR.

Conflict of Interest

CONSULTANT will comply with all conflict of interest laws and regulations including, without limitation, CITY's conflict of interest regulations.

Prevailing Wages

PREVAILING WAGES. If required by applicable state law including, without limitation Labor Code §§ 1720 (as amended by AB 975 (2001)), 1771, 1774, 1775, and 1776, CONTRACTOR must pay its workers prevailing wages. It is CONTRACTOR's responsibility to interpret and implement any prevailing wage requirements and CONTRACTOR agrees to pay any penalty or civil damages resulting from a violation of the prevailing wage laws. In accordance with Labor Code § 1773.2, copies of the prevailing rate of per diem wages are available upon request from CITY's Engineering Division or the website for State of California Prevailing wage determination at http://www.dir.ca.gov/DLSR/PWD. A copy of the prevailing rate of per diem wages must be posted at the job site.

This contract is subject to both Federal and State prevailing wage requirements of the California Labor Code including Sections 1770 and 1773, the Davis-Bacon and Related Acts and the City's California Department of Industrial Relations (DIR) approved Labor Compliance Program. All covered work classifications required in performance of this contract will be subject to prevailing wage provisions. If there is a difference between the Federal and State wage rates, the Contract and its subcontractors shall pay not less than the higher wage rate. Contractor shall further adhere to the requirements contained in the City's Labor Compliance Program. A copy of the Labor Compliance Program is available for review upon request at the Office of the City Clerk. All pertinent Federal and State of California statues and regulations, including, but not limited to those referred to in this

contract and in the City's Labor Compliance Program, are incorporated herein as though set forth in their entirety. Additionally, the Contractor is responsible for obtaining a current edition of all applicable Federal and State of California statues and regulations and adhering to the latest editions of such.

Protection of Resident Workers.

The City of Santa Clarita actively supports the Immigration and Nationality Act (INA) which includes provisions addressing employment eligibility, employment verification, and nondiscrimination. Under the INA, employers may hire only persons who may legally work in the United States (i.e., citizens and nationals of the U.S.) and aliens authorized to work in the U.S. The employer must verify the identity and employment eligibility of anyone to be hired, which includes completing the Employment Eligibility Verification Form (I-9). The Contractor shall establish appropriate procedures and controls so no services or products under the Contract Documents will be performed or manufactured by any worker who is not legally eligible to perform such services or employment.

Federal Prevailing Wages

The work being done pursuant to this Contract is paid for in part by the United States of America. Therefore, pursuant to the provisions applicable to such federal assistance, Contractor acknowledges and agrees that the services, construction, and maintenance pursuant to this Contract is, or may become, subject to certain federal laws and regulations, including, but not limited to, provisions of the Davis-Bacon Act, and particularly 29 Code of Federal Regulations section 5.5 in part as follows:

(a) The Agency head shall cause or require the contracting officer to insert in full in any contract in excess of $2,000 which is entered into for the actual construction, alteration and/or repair, including painting and decorating, of a public building or public work, or building or work financed in whole or in part from Federal funds or in accordance with guarantees of a Federal agency or financed from funds obtained by pledge of any contract of a Federal agency to make a loan, grant or annual contribution (except where a different meaning is expressly indicated), and which is subject to the labor standards provisions of any of the acts listed in Sec. 5.1, the following clauses (or any modifications thereof to meet the particular needs of the agency, Provided, That such modifications are first approved by the Department of Labor):

(1) Minimum wages. (i) All laborers and mechanics employed or working upon 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), 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 1(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 paragraph (a)(1)(iv) 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 Sec. 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 work is performed. The wage determination (including any additional classification and wage rates conformed under paragraph (a)(1)(ii) 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. (ii)(A) The contracting officer shall require that any class of laborers or mechanics, including helpers, 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 therefore only

when the following criteria have been met: (1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and (2) The classification is utilized in the area by the construction industry; and (3) 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, U.S. Department of Labor, 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 within 30 days of receipt and so advice 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 paragraphs (a)(1)(ii) (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. (iii) 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. (iv) 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.

(2) Withholding. The CITY 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 same prime contractor, or any other federally- assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime 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 CITY may, after written notice to the contractor, 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.

(3) Payrolls and basic records. (i) 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. (ii)(A) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the City. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under Sec. 5.5(a)(3)(i) of Regulations, 29 CFR part 5. This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington, DC 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (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: (1) That the payroll for the payroll period contains the information required to be maintained under Sec. 5.5(a)(3)(i) of Regulations, 29 CFR part 5 and that such information is correct and complete; (2) 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; (3) 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 (a)(3)(ii)(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. (iii) The contractor or subcontractor shall make the records required under paragraph (a)(3)(i) of this section available for inspection, copying, or transcription by authorized representatives of the CITY or 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 CITY may, after written notice to the contractor, 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.

(4) Apprentices and trainees--(i) 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, Office of Apprenticeship Training, Employer and Labor Services, or with a State Apprenticeship Agency recognized by the Office, 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 Office of Apprenticeship Training, Employer and Labor Services or a State Apprenticeship Agency 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 a 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 journeymen 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 determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Office of Apprenticeship Training, Employer and Labor Services, or a State Apprenticeship Agency recognized by the Office, 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. (ii) 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. (iii) 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.

(5) 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.

(6) 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 City of Santa Clarita may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR 5.5.

(7) 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.

(8) 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.

(9) 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.

(10) Certification of eligibility. (i) 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). (ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1). (iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(b) Contract Work Hours and Safety Standards Act. The Agency Head shall cause or require the contracting officer to insert the following clauses set forth in paragraphs (b)(1), (2), (3), and (4) of this section in full in any contract in an amount in excess of $100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by Sec. 5.5(a) or 4.6 of part 4 of this title. As used in this paragraph, the terms laborers and mechanics include watchmen and guards. (1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in

any workweek in which he or she is employed on such work to work in excess of forty 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. (2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph (b)(1) of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages. (3) Withholding for unpaid wages and liquidated damages. The CITY 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 the contractor or subcontractor under any such contract or any other Federal contract with the same prime contractor, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act, which is held by the same prime contractor, such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in paragraph (b)(2) of this section. (4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in paragraph (b)(1) through (4) of this section and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs (b)(1) through (4) of this section.

The parties hereto for themselves, their heirs, executors, administrators, successors, and assigns do hereby agree to the full performance of the covenants herein contained and have caused this AGREEMENT to be executed in duplicate by setting hereunto their names and titles this   day of   , 20   .

CONTRACTOR: CONTRACTOR Name: _____

        Address: _____

        Phone & Fax No. _____

ALL SIGNATURES MUST BE _____Signed By:
WITNESSED BY NOTARY
(ATTACH JURATS)

        Print Name & Title:_____

        CONTRACTOR's License No._____

        Class _____

CITY: _____   Date: _____
        Mayor/ City Manager of the City of Santa Clarita

Attest: _____   Date: _____
        City Clerk of the City of Santa Clarita

Approved as to Form: _____   Date: _____
        City Attorney of the City of Santa Clarita

FAITHFUL PERFORMANCE BOND

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

KNOW ALL MEN BY THESE PRESENTS that _____,
as CONTRACTOR, AND _____, as
SURETY, are held and firmly bound unto the City of Santa Clarita, as AGENCY, in the penal sum
of _____ dollars ($_____), which
is one-hundred (100%) percent of the total amount for the above-stated project, for the payment of
which sum, CONTRACTOR and SURETY agree to be bound, jointly and severally, firmly by these
presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas CONTRACTOR has been
awarded and is about to enter into the annexed Contract Agreement with AGENCY for the
above-stated project, if CONTRACTOR faithfully performs and fulfills all obligations under the contract
documents in the manner and time specified therein, then this obligation shall be null and void,
otherwise it shall remain in full force and effect in favor of AGENCY; provided that any alterations in the
obligation or time for completion made pursuant to the terms of the contract documents shall not in any
way release either CONTRACTOR or SURETY, and notice of such alterations is hereby waived by
SURETY.

IN WITNESS WHEREOF, the parties hereto have set their names, titles, hands, and seals, this _____
day of _____, 2006.

CONTRACTOR* _____

_____

_____

SURETY*   _____

_____

_____

Subscribed and sworn to this _____ day of _____, 2006.

NOTARY PUBLIC _____

*   Provide CONTRACTOR/SURETY name, address, and telephone number and the name,
title, address, and telephone number of authorized representative.

LABOR AND MATERIAL BOND

Transit Information Network
RFP# PS-07-08-08

City of Santa Clarita, California

KNOW ALL MEN BY THESE PRESENTS that _____., as CONTRACTOR AND _____, as SURETY, are held and firmly bound unto the City of Santa Clarita, as AGENCY, in the penal sum of _____ dollars ($_____), which is one-hundred (100%) percent of the total amount for the above stated project, for the payment of which sum, CONTRACTOR and SURETY agree to be bound, jointly and severally, firmly by these presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH that, whereas CONTRACTOR has been awarded and is about to enter into the annexed Contract Agreement with AGENCY for the above-stated project, if CONTRACTOR or any subcontractor fails to pay for any labor or material of any kind used in the performance of the work to be done under said contract, or fails to submit amounts due under the State Unemployment Insurance Act with respect to said labor, SURETY will pay for the same in an amount not exceeding the sum set forth above, which amount shall insure to the benefit of all persons entitled to file claims under the State Code of Civil Procedures; provided that any alterations in the work to be done, materials to be furnished, or time for completion made pursuant to the terms of the contract documents shall not in any way release either CONTRACTOR or SURETY, and notice of said alterations is hereby waived by SURETY.

IN WITNESS WHEREOF, the parties hereto have set their names, titles, hands, and seals, this _____ day of _____, 2006.

CONTRACTOR* _____

_____

_____

SURETY*   _____

_____

_____

Subscribed and sworn to this _____ day of _____, 2006.

NOTARY PUBLIC _____

*   Provide CONTRACTOR/SURETY name, address, and telephone number and the name, title, address, and telephone number of authorized representative.

ATTACHMENT A

City of Santa Clarita
Transit Information Network – Technical Specifications
August 2007
TABLE OF CONTENTS

SECTION 1
1.0 Introduction
The City of Santa Clarita is seeking to implement Transit Information Network (TIN) consisting of a Automatic Vehicle Location (AVL) system, Computer Aided Dispatch (CAD), electronic stop annunciators, automatic passenger counters and real-time customer information display units. The overall goal of this technology is to allow the City to better manage its fixed-route and paratransit fleet operations and improve customer service. . The TIN will track the location of each GPS-equipped vehicle and present the vehicle locations to centrally located dispatchers in the form of a map display. The TIN will use position data to monitor each vehicle's progress along its route and against its schedule, and will alert the dispatcher when a deviation is detected. The TIN will also provide tools for the dispatcher to better manage mobile radio communications with the vehicles, including providing the means to communicate with vehicle Operators via short text messages rather than tying up critical radio resources with voice communications.

The Contractor shall be responsible for all acts, tasks, Equipment, System Components, and services required to provide SCT with a turnkey TIN system that is fully functional in accordance with the Contract and Specifications (collectively referred to as "Work"), whether or not such Work is specifically identified within this Agreement and the Specifications. Unless otherwise expressly agreed to in writing, all Work under this Agreement shall be performed by the Contractor. Proposers shall specify in their proposal their compliance with each requirement in the RFP.

Since its inception in August 2001, City of Santa Clarita Transit has been one of the fastest growing public transportation providers in Los Angeles County growing from 600,000 passengers in its first year of operation to carrying more than 3.6 million passengers annually. The City of Santa Clarita Transit provides fixed-route local and commuter express bus service, as well as dial-a-ride paratransit services. The City of Santa Clarita Transit's primary service area is situated within the "V" formed by two freeways, the Golden State Freeway (I-5) to the west and the Antelope Valley Freeway (SR-14) to the east. City of Santa Clarita Transit also provides service west of Interstate 5, in the unincorporated communities of Castaic, Val Verde, and Stevenson Ranch. The commuter service links the Santa Clarita Valley with employment centers in the San Fernando Valley, (Sylmar, Van Nuys, and Warner Center), Century City, Downtown Los Angeles, and the Antelope Valley. The Santa Clarita Transit fleet consists of 73 revenue vehicles and six supervisor and support vehicles.

In 2006, the City completed a Transportation Development Plan that estimated City of Santa Clarita Transit will need to grow by 58 percent over the next ten years to keep pace with new development and demand. Ridership continues to grow and is expected to reflect the continuing population expansion in Santa Clarita.

Appendix A explains and defines abbreviations, acronyms, and terms used throughout this document.

1.1 Fixed-Route Service
Santa Clarita Transit operates seven fixed-routes within the Santa Clarita Valley these route link residential areas with employment centers and traffic generators seven day per week. Additionally, SCT operates all day service between Santa Clarita and the Sylmar Metrolink station located in the San Fernando Valley.

1.2 Paratransit Service
The City of Santa Clarita operates a senior and disabled paratransit service within the Santa Clarita Valley and surrounding unincorporated areas of Los Angeles County. The hours of operation for the DAR service mirror those of the Fixed-route system.

In addition, the City of Santa Clarita operates ADA complementary service in the region under contract with Access Service Inc.

In the spring of 2005, the City of Santa Clarita implemented a fully automated CAD/AVL and scheduling system. This system is comprised of 14 paratransit vehicles equipped with RouteMatch software and Mentor Ranger MDC's. In addition to the vehicle hardware, the RouteMatch system consists of five workstations used for booking reservations and scheduling, one administrative workstation, and one dispatcher workstation equipped with dual monitors.

1.3 Local Fixed Route Service
The local service provided by the City typically runs every 30 minutes from 4:30 AM to 11:00 PM on weekdays and from 7:00 AM to 10:30 PM on Saturdays and Sundays.

Local Service

Route	Name
1 & 2	Service between Canyon Country (Whites Canyon) and Castaic/Val Verde via Downtown Newhall
3 & 7	Service between Seco Canyon and McBean Transfer Station
4	Service between Bouquet Canyon and Newhall via College of the Canyons and select trips to the Senior Center.
5 & 6	Service between Newhall/Stevenson Ranch and Canyon Country (Shadow Pines and north of Sierra Hwy.).
8	Service between the McBean Transfer Station and the Sylmar Metrolink Station.

The City is currently in the process implementing the short-term recommendations outlined in the City's recently completed Transit Development Plan. The City plans to implement many of the mid and long term recommendation over the next two to five years.

1.4 Commuter and Station Link Service

Station link service is a weekday service only and operates only the morning and evening peaks. Typically service lines operate from 5:00 AM to 9:00 AM and 4:00 PM to 8:00 PM.

Station Link Service

Route	Name
501	Santa Clarita Metrolink to Magic Mountain via Valencia Town Center
502	Santa Clarita Metrolink to Valencia Industrial / Commerce Centers
503	Seco Canyon to Santa Clarita Metrolink
504	Bouquet Canyon to Santa Clarita Metrolink

1.5 Commuter Service
The City of Santa Clarita Transit commuter services operate during morning and evening peak hours, each weekday.

Commuter Service

Route	Name
790	Santa Clarita to Olive View Medical Center
791	Warner Center/Chatsworth to Santa Clarita
792	UCLA / Westwood Century City to Santa Clarita
793	Van Nuys / Sherman Oaks to Santa Clarita
794	Downtown Los Angeles via Burbank Metrolink Station to Santa Clarita
795	Lancaster / Palmdale and Santa Clarita
796	Santa Clarita to Warner Center / Chatsworth
797	Santa Clarita to UCLA/Westwood/Century City
798	Santa Clarita to Van Nuys / Sherman Oaks
799	Santa Clarita to Downtown Los Angeles

1.6 Tripper Service
Tripper service operates peak morning and afternoon peak hours during school months only. Due to the valley's growing population, and the recent introduction of new middle and high school campuses within the service area, ridership has increase nearly 400 percent aboard the tripper service in the past six years. The majority of these runs operate at or beyond capacity.

Tripper Service

	Tripper Service
620	Saugus High School, Arroyo Seco Jr. High
621	Saugus High School, and Arroyo Seco Jr. High
622	Rio Norte Jr. High
623	Rio Norte Jr. High
624	Valencia High School
625	Valencia High School
626	La Mesa Jr. High School
627	La Mesa Jr. High School
628	Golden Valley High School
629	Golden Valley High School
631	Rancho Pico Jr. High School, Valencia High School
632	Sierra Vista Jr. High School, Canyon High School
633	Saugus High School
634	West Ranch High School
636	West Ranch High School, Rancho Pico Jr. High School

The routes operated by Santa Clarita Transit are shown below. More information may be found on www.santa-clarita.com/cityhall/field/transit/index.asp.

City of Santa Clarita
Transit System Map
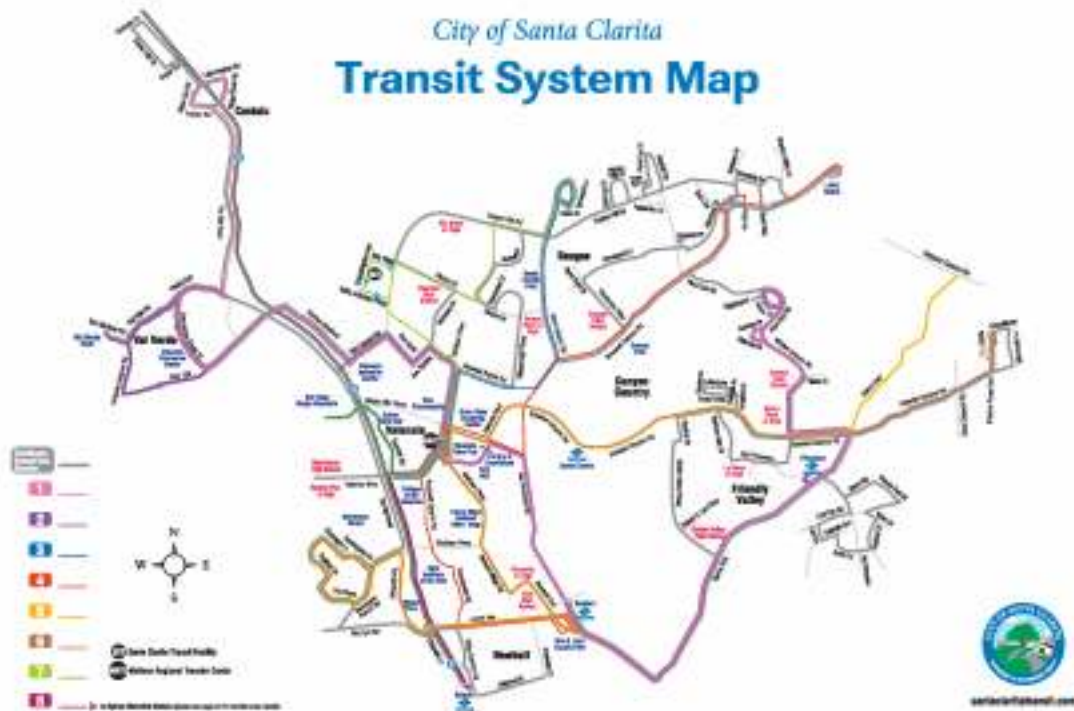
SECTION 2
2.0 System Functions
This Section describes the functions to be performed by the TIN. The Contractor shall supply all described functions, except for alternatives and options that are not selected by the City and those functions specifically identified as "future".

All functions and features of functions described in this section shall apply to fixed route operations unless specifically excluded by the City.

2.1 Transit Information Network Overview

2.1.1 TIN Major Functions
The TIN specified herein shall support all Santa Clarita Transit fixed-route vehicle operations and seamlessly interface with the existing RouteMatch (paratransit) dispatching and AVL system. Contractor shall design, furnish, install, test and make operational a TIN. The TIN shall provide the following major functions:

a. Computer Aided Dispatch (CAD) functions for the control of:

   1. All data communications between fixed-route and commuter vehicles and the dispatch office

   2. All voice communications between fixed-route and commuter vehicles and the dispatch office

b. Data communication system

c. Global Positioning System (GPS)-based Automatic Vehicle Location (AVL) functions that are tightly integrated with the supplied CAD functions.

d. Fixed-route scheduling and run cutting software that seamlessly interfaces with CAD functions.

e. Traveler Information System

f. Passenger Counter system

g. On board passenger stop annunciators

h. Covert and overt alarm system

i. Integration with existing vehicle systems including

   1. GFI Odyssey fareboxes and Cubic faresystem

   2. Digital camera system

   3. External digital headsigns

   4. Vehicle sensor and diagnostic (J-Bus) system

j. Integration of supplied CAD/AVL functions with the City's existing RouteMatch paratransit scheduling and dispatch system.

k. Wireless LAN

l. Bus Signal Priority (optional)

m. Road Supervisor System

n. Integration with RIITS

2.1.2 TIN Operations Support
The TIN shall support all operations from the City's Transit Maintenance Facility located at 28250 Constellation Road, Valencia.

The Contractor shall provide all necessary hardware and workstations, unless otherwise specified in this RFP, in support of the operations described above and also for operations management,

system and administration. All hardware and workstations provided shall meet the minimum standards outlined in Appendix B.

2.2 General Requirements

2.2.1 System Scalability
The TIN shall initially support the functions specified herein with the quantities of vehicles listed in Appendix E, and devices and workstations included in this RFP. The system shall be expandable to 250 vehicles and eight (8) workstations without any software or hardware modifications. However, the system shall be easily scalable over its estimated 10-year lifetime to support additional vehicles, users, and workstations without replacement of initially installed components, including both hardware and software components.
TIN shall be designed such that additional fleets of buses could be added in the future to support a consolidated region-wide ITS program. TIN shall also be designed such that dispatch consoles could in the future be added at locations other that the current dispatch center location.

2.2.2 Functional Expandability
The TIN shall be designed to permit the addition of new functional capabilities over its lifetime without significant replacement of existing components. In particular, functions designated in this Specification as "future" or options shall be readily added to the system during its lifetime without costly rework or replacement of existing system components.
Proposers shall specify in their proposals how functions designated as "future" can be added to the system at a later time.

2.2.3 Contractor's Standard, Service-Proven Products
Contractors are encouraged to supply standard, unmodified, service-proven products of computer and communication equipment manufacturers, established third-party hardware and software suppliers and their own baseline product offerings where they meet or exceed the functional requirements of this Specification. Contractor shall supply all standard features and functionality of the Contractor's most current product release.
Proposers shall describe their standard offering in their proposals and highlight those proposed features that exceed specification requirements, and those features that need to be developed to meet the specifications.

2.2.4 Adjustable Parameters
Computer programs typically reference a number of variables that must be given specific values during the execution of the program. These variables, or parameters, require adjustment from time to time.
All parameters in the TIN that users may need to modify shall be adjustable by authorized workstation users. At least two methods of adjustment shall be provided. Parameters designated in this specification as "workstation user-adjustable" shall be modifiable by authorized workstation users via workstation displays normally accessible to those users. Parameters designated in this Specification as "system administrator-adjustable" shall be modifiable via workstation displays accessible only by a system administrator or authorized system operator. parameters designated simply as "adjustable" shall be modified in either of the above ways, depending on the Contractor's standard approach.
Adjustments made to parameters by workstation users shall become effective immediately without having to restart any part of the system. Adjustments made to parameters by the system administrator may require a restart of affected system components, but shall not require rebuilding and/or recompilation of programs, or regeneration of databases. If a system reboot is necessary, the system shall notify the user and provide the option of rebooting the system at a later time.
All parameters, including periodicities and time intervals, defined in this Specification shall be considered initial values to be used for planning purposes, but all shall be adjustable by authorized workstation users/Systems Administrators. The system shall log all parameter changes.

2.2.5 Activity Logging

The TIN shall log all workstation user actions to an activity log. The activity log shall be real-time and accessible on-line. Each action shall result in an entry in the log that shall include, at a minimum, user ID, terminal ID, record/file ID's, date/time, module/function ID's and other pertinent data associated with the action. The maximum size of the log storage shall be configurable by the system administrator in order to conserve storage capacity for critical system functions.

2.2.6 Output Requirements

Specific requirements for output of results are defined in this Specification along with the other requirements of each function. Whether or not explicitly specified in the function description, all data and results produced by TIN functions shall be accessible for display, printing and transfer to external computer systems as identified in Section 2.11.

2.2.7 Reasonability of Data

In order to prevent invalid and unreasonable data from having a harmful effect on the TIN, Santa Clarita Transit or the City of Santa Clarita computer network, data shall be checked for reasonability. All input data and parameters, whether collected automatically or entered by an User shall be checked for reasonability before allowing the data to be processed or used by the TIN, and shall be rejected if unreasonable.

When unreasonable input data or results are detected, diagnostic messages clearly describing the problem shall be generated. All programs and the system shall continue to operate in the presence of unreasonable data. Calculations using the unreasonable data shall be temporarily suspended or continue to use the last reasonable data.

Proposers shall describe how their offering will meet this requirement.

2.2.8 Data Integrity

The TIN shall be designed to protect data integrity in a multi-user and multi-processing environment. Appropriate exclusion methods shall be employed to ensure that collected data is not corrupted from multiple concurrent accesses by different processes. User-entered data shall be protected by appropriate exclusion methods that prevent more than one user from simultaneously editing the same data. In general, users shall be notified and granted read-only access to data that is being updated by another user.

Proposers shall describe how their offering will meet this requirement.

2.3 Access Security

Access to the TIN shall be strictly limited to designated and authorized users. Users without proper minimum authorization shall be denied access to all TIN functions and data, as well as all TIN resources such as servers, printers, workstations, etc.

2.3.1 User Authorization

As a minimum, TIN workstation user authorization shall require entry of a valid username and password combination that determines the user's level of access to TIN functions and data. Each workstation user shall have a unique username that is assigned by the system administrator. The logon/logoff status of a user shall be unaffected by any failure recovery procedure in the network. A function shall be provided for users to log off.

2.3.2 Functional Partitioning

Access to TIN functions and capabilities shall be based upon each user's authorization level and not the physical workstation being used, though limitations in functional capabilities due to the configuration of the workstation may also apply (e.g., no voice equipment). Each level of access shall be capable of specifying "full", "view-only", or "no" access to each identified TIN function. A minimum of 8 access levels shall be supported by the TIN, which shall include at least the following levels:

- Information User — these users shall have only read-only access to TIN historical data via the information server resources, but shall have no access to TIN functions
- Operator - these users shall have all rights of an Information Users plus the ability to access Operator functions on the mobile data terminals.
- Maintenance - these users shall have all rights of an Information Users plus the ability to access Maintenance functions on the mobile data terminals.
- Road Supervisor - these users shall have all rights of an Information Users plus the ability to access Road Supervisor and Operator functions on the mobile data terminals.
- Customer Service – these users shall have all the rights of an Information User plus read only access to selected Dispatcher functions (e.g., AVL functions).
- Dispatcher — these users shall have all of the rights of a Customer Service User plus full access to specific TIN functions as determined by the system administrator
- System Administrator — these users shall have unrestricted access to TIN functions and shall have special privileges required to administer overall access security and to maintain the TIN. A secure method shall be provided for the system administrator to change passwords and user identifications and establish functional partitions.

2.3.3 Data Partitioning

System administrators shall be able to define data partitions that specify, via selection criteria or other means, a subset of all TIN data, including events, that users are permitted to access. For example, it shall be possible to partition data related to paratransit operations from data related to fixed-route operations, such that a Dispatcher for one operation would only be presented with events and incidents related to that operation. For each defined data partition, the system administrator shall also be able to specify the type of access, which shall include at least "read-only" and "full access". Data partitions shall be able to overlap in definition and each data partition shall be assignable to any number of workstation users. A minimum of eight distinct data partitions shall be supported. As a minimum, data partitioning shall be possible based on any logical combination of the following criteria:

- Service – Data associated with a specific service (e.g., fixed-route, paratransit)
- Vehicle Type — Data associated with a specific vehicle type, such as "fixed-route", "paratransit", "supervisor", "maintenance", etc.
- Event Type/Sub-Type — Events of specific types and sub-types. This could be used, for example, to operate a maintenance console that receives only mechanical events.

2.3.4 Security Records

Each user logon and logoff shall be recorded in the historical event log. The recorded data shall include the date and time that the logon/logoff was executed, the name of the workstation, and the identification of the user.

2.3.5 TIN Local Area Network (LAN) Access Security

The TIN LAN shall be secured to prevent unauthorized use or administration of its resources from any attached node, regardless of whether that node is running TIN-specific software or some other software (e.g., a general purpose Windows workstation). This security shall include, but not be limited to, positive user authentication for access to TIN file, database and application servers, workstations, printers, routers, bridges, domain controllers, and other resources that may be used for managing the TIN LAN and its configuration. Separate levels of authentication shall be provided to distinguish, as a minimum, user access from administrative access to the TIN LAN resources.

2.3.6 TIN Network (WAN) Access Security

External access to any resources of the TIN network shall be strictly controlled to ensure that the system is not corrupted or disabled, intentionally or unintentionally. In addition to basic user authorization, City network access to the TIN shall be further secured by enabling the system administrator to control all access to TIN resources from outside City nodes and sub-networks. With the exception of the Historical Database Server, all outside access to the initially implemented TIN configuration and resources shall be denied. Therefore, transfers of data that must take place between the TIN and outside systems shall be initiated by a component from within the TIN.

2.4 Computer Aided Dispatch (CAD) Functions

The TIN shall provide a comprehensive set of computer-aided radio dispatch features that will allow for effective and efficient monitoring and control of revenue and non-revenue vehicles. The basic functional requirements for CAD are contained within the following sections.

2.4.1 Voice Communications

The TIN shall provide voice communications via an existing conventional radio system that is to be integrated with the TIN by the Contractor. The system administrator shall be able to assign a default voice channel to each TIN workstation from the pool of available voice channels.
All voice calls initiated by an TIN workstation user shall use the workstation's default voice channel assignment. All recipients selected by the TIN workstation user for a voice call shall be automatically switched to the assigned voice channel for the duration of the call. The TIN shall notify the TIN workstation user when a voice call is requested and the assigned default voice channel is currently in use at another TIN workstation.
A description of SCT existing voice radio system is provided in Section 12.

2.4.2 Voice Fallback Mode

The TIN shall support a "fallback" mode of voice communications in the event that normal (data) communications with one or more vehicles has failed, such as during the failure of a data channel. In the fallback mode of operation two-way voice communications between the TIN workstation users and the vehicles affected by the failure shall still be possible via voice channels that are assignable by the system administrator for this purpose.
All affected vehicles shall be automatically switched to the fallback mode when a failure of normal communications is detected. Vehicles unaffected by the failure shall continue to operate in the normal communications mode. The time period between detection of a communications failure by a vehicle and the entering of fallback mode shall be adjustable by the system administrator.
Vehicles in fallback mode shall periodically check for restoration of normal communications at an interval that is adjustable by the system administrator. When normal communications have been restored, all affected vehicles shall automatically return to the normal communications mode.
During fallback mode, vehicles equipped with silent emergency alarm capabilities shall continue to allow those emergency alarms to be initiated. All such fallback silent emergency alarms shall be immediately annunciated to active TIN workstation users and shall provide those users with at least the vehicle ID of the vehicle that issued the alarm.
Proposers shall describe how their offering will meet this requirement.

2.4.3 Data Communications

2.4.3.1 Data Channel Allocation

The TIN shall support the transfer of control commands and data to and from the vehicle fleet and supervisory vehicles. Depending on the communication structure proposed the City could potentially allocated one narrowband data channel for all such data and control commands. This data channel shall be shared for data communications with the fixed-route, commuter and non-revenue fleets. Regardless of the delivery system (i.e., radio, wireless, cellular, etc) the proposed system shall be expandable in the future without the replacement of major components.
The Contractor shall optimize its communications design/protocol to ensure that all

required system functions can be performed at the periodicities defined in this specification. If a proposer chooses to use radio, proposers shall provide in its proposal a channel loading analysis showing all the defined uses of the data channel, overhead factors and calculations, and all other components of the channel loading based on the vehicle fleet shown in Appendix D and a maximum one (1) minute reporting epoch for the vehicles. Based on this analysis, Proposers shall indicate in their proposals if the number of data channels needed for this function based on the proposed design approach.

2.4.3.2 Data Communications Protocol

A suitable data communications protocol shall be used to ensure the reliable delivery of data and control commands over the data channels. Protocol parameters, such as timeouts and retry counts and intervals, shall be system administrator-adjustable. Data communications errors shall be logged and excessive errors and communications failures shall be alarmed to the appropriate workstation users.

If a radio solution is proposed for the transmission of data, the protocol used shall be designed to avoid operating the mobile radios beyond their maximum transmit duty cycle specifications, such as might otherwise occur during time periods with very few active vehicles.

Due to the importance of receiving silent emergency alarms as quickly and reliably as possible, the TIN shall be designed to ensure the rapid and reliable transmission of silent emergency alarms to the appropriate workstation users. In addition, means shall be employed to help ensure that emergency alarms are annunciated even when radio communication conditions are marginal. Such means may include approaches such as routinely retransmitting a silent emergency alarm on a frequent periodic basis, even before a failure to communicate has been detected and continuing to retransmit the silent emergency alarm until the message is positively acknowledged. All such methods shall ensure that each silent emergency alarm is annunciated only once. Silent alarm messages shall also be transmitted by the mobile radios and received by the TIN when the radios are operating in fallback mode. Proposers shall describe in the proposal the implementation of silent emergency alarms to meet these requirements.

2.4.3.3 Vehicle Data Monitoring

If a polling scheme is utilized to retrieve requests for voice communications and data transmissions from the vehicles, the TIN shall poll all active in-service vehicles at least every sixty seconds. The use of "smart polling" strategies is encouraged to provide the most frequent polling where it is needed most. These strategies should include more frequent polling of off-schedule and off-route vehicles and less frequent polling of vehicles in the yard or at the end of a route. The polling of vehicles according to the routes on which the fixed route vehicles are operating and type of service (e.g. fixed route, commuter, non-revenue) is also encouraged.

If an exception reporting scheme is employed for initiating communications with the vehicles, all vehicles shall report to the TIN whenever data is available for transmission, whenever voice communications are required, and periodically whenever the vehicle is operating either off-schedule or off-route. In addition, each vehicle shall initiate "health-check" transmissions whenever no exception report transmissions have been made for a period of one minute. The TIN shall verify that it receives at least one transmission, either an exception report or a health-check, from each vehicle on a regular basis; this verification shall be performed at a pre-set period, adjustable only by the system administrator. The TIN shall alarm and log all vehicles failing to report in during each period.

If any other reporting scheme is employed (e.g., non-polled, non-exception), all communication requests and all data transmissions shall be retrieved from all active in-service vehicles at least once every 60 seconds.

The TIN shall receive and process all data received from vehicles, regardless of whether an operator is logged in. All emergency alarms and other alarms, request to talk, priority request to talk and other driver initiated actions shall be handled in the same manner as

for logged-in vehicles.

2.4.3.4 Future Data Requirements
The data communications supported by the TIN shall allow for expansion in the type of and quantity of data as vehicles and system functions are added to the system. The TIN shall be designed to allow for this type of expansion.

2.4.4 Bulk Data Transfer
The TIN shall support automated wireless transfers, in either direction, of large amounts of data with all TIN-equipped vehicles. The primary objective of this function shall be to eliminate the need to "touch" each vehicle when major schedule changes occur and when routine software, configuration and other modifications are required on the vehicles.

Wireless data transfers shall occur when the vehicles enter the City's Transit Maintenance Facility. The posting of data for transfers shall be supported at any time and at all points within the parking areas of the Maintenance Facility. The bulk data transfer function shall enable authorized TIN workstation users to post data for transfer to vehicles and to monitor the progress of all transfers on a per-vehicle basis. No user intervention shall be required to handle transfers once they are posted.

Suitable interactive facilities shall be provided for the TIN system administrator to manage the bulk data transfer function. The bulk data transfer function shall detect interrupted transfers, such as for a vehicle that leaves the access zone prior to completion of a transfer. In this case, the transfer shall be completed normally when the affected vehicle returns to any access zone. For very large data sets it shall not be necessary to re-start an interrupted transfer from the beginning. Bulk data supported by this function shall include, but not be limited to, the following types of data:

- Fixed Route Definition Data – Provide for the transfer of schedule route definition data including routes, schedules, trips, runs, time points, display/annunciator trigger points, map data and other data required by the fixed route vehicles as dictated by the Contractor's design approach. The bulk data transfer function shall permit all such updates to occur over a period of at least two (2) weeks prior to the effective date of the new data and without disrupting current operations using the existing data. In addition, the TIN shall include a capability to download short-term changes to the route definition data (e.g., re-routes) to vehicles operating in the field.
- Automatic Passenger Counter (APC) Data – The TIN shall support uploading of APC data from all APC-equipped fixed route vehicles. APC data upload from vehicles shall be supported on at least a daily basis. The upload method shall automatically retrieve APC data from vehicles, process the data and store it in the database for TIN workstation user access. No manual intervention shall be required for this process under normal operating conditions.
- Destination Sign Data – Provide for download to vehicles of updated destination sign message data for fixed route vehicles with onboard signs that are interfaced to the TIN. The TIN shall support downloading of this data as required (typically with every schedule update).
- Audio Announcement and Visual Display Data – Provide for download of updated audio announcement data and visual display data (if supplied) for all fixed route vehicles. The TIN shall support downloading of this data as required (typically with every schedule update).
- Mobile Data Terminal (MDT) Parameters – Provide for the download of updated MDT parameters, including canned message menus, timeout periods, and schedule activation dates.

All equipment and software required to transfer the data to/from the vehicles shall be provided. For example, if a spread-spectrum radio approach is proposed, the Contractor shall provide and install the radios, antennas, receivers, software and any other equipment necessary on-board the vehicles and at all necessary fixed locations in order to download/upload data to/from the vehicles

at the City's Transit Maintenance Facility. If a spread-spectrum radio approach is proposed, the system shall conform to IEEE 802.11 B or G and utilize Channel 6. A design that allows retrieval of higher priority, more time critical data earlier and retrieval of less critical data at a later time is preferred. Potential interference between the TIN Bulk Data Transfer function and the existing Route Match scheduling and dispatching system, the CCTV system, and the UFS system; shall be considered in any approach proposed by the Contractor. The Contractor shall ensure that all data transferred via the bulk data transfer function is secure from unauthorized interception. Encryption and/or other methods to prevent such unauthorized access si desired but not required. The Contractor shall also ensure that the bulk data transfer function is adequately protected from unauthorized entry that could result in access to or control of resources on the TIN System network. The proposal shall describe the bulk data exchange mechanism that is proposed.

2.4.5 Identifier Field Formats
All vehicles supported by the TIN shall be identified by vehicle IDs, route numbers, and block numbers. Vehicle operators shall be identified by badge numbers and run numbers. Supervisory and other non-revenue vehicles shall be identified by vehicle ID. The formats of the identifiers that shall be supported by the TIN are as follows:

- Fixed Route Revenue Vehicles 5 Alpha -numeric
- Commuter Route Revenue Vehicles 5 Alpha -numeric
- Non-Revenue Vehicles 4 numeric digits
- Block Number 5 numeric digits or Not Applicable
- Route Number 4 numeric digits or Not Applicable
- Run Number 4 numeric digits, 5, Alpha-numeric or Not Applicable
- Trip Number 5 numeric digits or Not Applicable
- Operator Badge Number 5 numeric digits
- Vehicle ID 5 numeric digits.

Initially, fewer digits may be utilized than the maximum lengths to be supported by the TIN as indicated above. Where the actual number utilized is shorter than the maximum lengths defined above, the TIN shall not require the entry of leading zeros.

2.4.6 Events
The TIN shall support the gathering, processing, storage and presentation of the status of the TIN system, and the events relating to TIN vehicles and vehicle operators. The following sections define requirements for events and event gathering. Requirements for event presentation to users are defined in Section 2.6.1.1 and in Section 3.

2.4.6.1 Event Types and Priorities
The TIN shall support multiple event types and subtypes. Events shall be available within the TIN for presentation, processing, and storage within specified maximum time delays relative to the actual creation of the events in the field under the peak loading conditions defined in Appendix E. The maximum delay for an event shall be determined by the specified priority of the event. A minimum of three (3) event priority levels shall be supported. The maximum delay for a high priority event shall be five (5) seconds, for a medium priority event shall be two (2) minutes, and for a low priority event shall be 24 hours. The maximum delays specified here are for the event to be available for use at the TIN fixed end and do not include any additional time required for presentation to a TIN workstation user.
The TIN shall support the following minimum set of event types and subtypes:
- Emergency Alarm (EA) – a signal from a vehicle that an emergency condition is occurring. This event shall have high priority.
- Priority Request To Talk (PRTT) – a high priority request from an Operator to talk with an TIN workstation user. This event shall have high priority.
- Request To Talk (RTT) – a normal request by an Operator to talk with an TIN workstation user. This event shall have medium priority.

- Text (Canned) Message – a text message from an Operator to an TIN workstation user. Each canned text data message shall be distinguishable as a unique data message subtype and shall be configurable by the system administrator to any supported priority level.
- Schedule Adherence Violations – an event indicating that a vehicle is off schedule (early/late). The message shall indicate the amount of schedule deviation in minutes. Schedule adherence violations having an early deviation from schedule and those having a late deviation from schedule shall be configurable to different priorities. These events shall initially have medium priority.
- Route Adherence Violation – an event indicating that a vehicle is off route. This event shall have high priority.
- Turn-back – an event indicating that a vehicle has performed a turn-back. This event shall have medium priority.
- Fill-in Service Start/Stop – events indicating starting and stopping of fill-in service for a specified route. This event shall have medium priority.
- Log-on Alarm – an event indicating that a vehicle has left the yard without a valid Operator log-on. This event shall have medium priority.
- Invalid Operator Logon – an event indicating a failure of an Operator logon. An invalid logon event shall be reported after three (3) consecutive failed logon attempts. This event shall have medium priority.
- Operator Logon/Logoff – events indicating successful Operator logons and logoffs. This event shall have medium priority.
- Open Block Alarm – an event indicating that a block has been without service (i.e., no active vehicle) for more than a pre-defined and configurable time period (see Section 2.6.9). This event shall have high priority.
- Relief Events – events indicating that an Operator relief has started, ended, or has been missed. This event shall have medium priority.
- Farebox Alarms – events indicating farebox alarms, including "bypass" and "tamper" alarms. This event shall have high priority.
- Mechanical Alarm (MA) – an event indicating a mechanical problem on a vehicle. This event shall have medium priority.
- TIN Alarm – events indicating a failure within the TIN itself, such as communications errors and failures, mobile component failures, etc. This event shall have high priority.
- Information Message – a low priority data message that is logged for historical purposes, but is not normally presented to an TIN workstation user. Examples of this type of event include: reporting of reasons for lateness, wheelchair lift/ramp usage, etc. This event shall have low priority.
- Out of Service Event Log – an event indicating a vehicle is out of service. This event shall have a medium priority.

All events shall include sufficient identifying and descriptive data necessary for a user to properly interpret the event. Event priorities shall be initially set as specified above, but shall be adjustable by the system administrator.

2.4.6.2 Event Storage
All events shall be stored by the TIN and, if appropriate, shall be presented to the appropriate TIN workstation users according to their data partition assignments. The TIN shall be designed with sufficient processing and storage capacity to store all events without loss under peak load conditions, as defined in the worst-case scenario in Appendix E. Stored event history shall include at least the following data:
- Event type/sub-type(s)
- Event parameter data, if any (e.g., message text)

- Date/time of creation (at the source location of the event)
- Originating location of event
- Date/time of receipt (at the fixed end)
- Date/time of selection (by user)
- Identification of selecting user
- Identification of vehicle (if applicable)
- Data regarding the disposition of the event (e.g., incident report generated).
- The history of all logged events shall be accessible via the Information Storage and Retrieval functions.
- Route/run information.

2.4.7 Incidents

The TIN shall support the creation, maintenance, tracking, and reporting of incidents relating to event occurrences for vehicles and Operators. The following sections define basic requirements for incidents. Other requirements for incidents are defined in Section 2.6.11.

2.4.7.1 Incident Types

The TIN shall support at least 16 different types of incidents. Each type of incident shall be associated with a unique incident report format that provides the information required for that particular incident type. The types of incidents and incident reports to be supported shall include the following:

- Emergency Alarms
- Maintenance problems, including the following sub-types:
  1. Roadcall
  2. Farebox
  3. Headsign
  4. Radio
  5. Tires
  6. Wiper
  7. Driver seat
  8. Engine alarm
  9. Door
  10. Bike rack
  11. Air conditioning
  12. Wheelchair lift
  13. Preventative Maintenance
  14. Overheating
- Accident involving revenue vehicle
- Incident involving revenue vehicle
- Incident involving passenger
- Delay
- Relief vehicle
- Nine spare incident types.
- Passenger overload
- DAR incidents from RouteMatch

The final list of incident types will be determined following contract award. At that time the City will also define sub-types for each type of incident. The sub-type shall be an additional field on the incident form. For example, mechanical alarm sub-types could include engine problems, wheel chair lift problems, bike rack, etc. Up to 16 sub-types shall be definable for each incident type. The same "type" form shall be used for all sub-types of that "type".

2.4.7.2 Incident Storage

The general information common to all incidents shall include, but not be limited to, the following:

- Incident number
- Time and date of the incident
- Incident code
- Incident description
- Reference to the event(s) associated with this incident
- Vehicle ID
- Route number and direction
- Block number
- Run number
- Operator name and badge number
- Incident location in GPS coordinates
- Incident location as an address or street intersection description
- Incident disposition
- Vehicle change (yes/no)
    1. Replacement vehicle ID
    2. Change location
    3. Change time
    4. Vehicle from location
- Notes
- Time lost
- Responding Road Supervisor name and badge number
- Incident status (open/closed)
- TIN workstation user who opened the incident
- TIN workstation user who closed the incident
- Time and date the incident was closed
- TIN workstation user comments.

Additional information particular to each type of incident shall be supported by the TIN and shall be defined following Contract Award.

2.4.8 Date and Time Coordination

The TIN shall use a suitable time reference to keep all components of the TIN synchronized to standard UTC time adjusted for the local time zone. TIN components that shall be synchronized in time include all local and remote workstations, all TIN servers, wall mounted digital time displays, and all vehicle MDTs. The time error between the standard time reference and any component of the TIN, including vehicle MDTs, shall not exceed two (2) seconds. In the event of a failure to synchronize with the selected time reference, the TIN shall generate an alarm to the system administrator.

The system administrator shall be able to adjust the TIN date and time from a single, central location that automatically resynchronizes date and time for all components of the system. The alteration shall be immediately accepted by all system components and shall not corrupt data files, such as the historical logs, nor adversely affect the state of other currently running programs. Under normal operating conditions all TIN components will receive data and time information for the TIN server.

2.5 Automatic Vehicle Location (AVL)

The TIN shall include a Differential Global Positioning System (DGPS)-based Automatic Vehicle Location (AVL) function. The AVL function shall provide tracking and reporting of the locations of AVL-equipped vehicles with a positional accuracy of 5 meters or less, regardless of whether the vehicles are moving, on-route, off-route, have no assigned route; or whether the vehicles are logged in or not. This required level of accuracy shall not be adversely impacted by GPS errors

resulting from reception errors. All vehicle movement on AVL maps and displays shall be based upon actual vehicle location reports and shall not be simulated. The AVL implementation shall provide both the vehicle operators and TIN workstation users with accurate and timely position data and schedule and route adherence data, while minimizing the use of radio communications for the transmission of vehicle location data. Design approaches such as onboard calculation and display of schedule and route adherence, with only schedule and route deviation and occasional and on-demand schedule/route adherence reporting to the fixed-end system, are encouraged. Based on the condition that a vehicle's schedule and route adherence is calculated on-board, vehicle locations shall be reported to the TIN whenever the schedule or route adherence thresholds are exceeded, whenever any communications request or other data is being transmitted and at least every one minute if no other data transmissions or communications requests are initiated from the vehicle. Additional AVL requirements are specified in the following sections.

2.5.1 AVL Coverage

It is possible that there will be locations of momentary GPS signal blockage and/or distortion, such as in a downtown area. Accordingly, it is the Contractor's responsibility under the scope of this Contract to investigate the GPS satellite coverage throughout the City of Santa Clarita Transit service area (see Appendix F) and to jointly determine with the City if backup to the GPS-based vehicle locations is required. Momentary loss of vehicle location (less than a 2 minutes, adjustable by the system administrator) may be acceptable as long as the last known good position is reported and the operators and TIN workstation users are not presented with unnecessary alarms.

2.5.2 AVL Map and Overlays

TIN shall utilize the City-supplied Geographic Information System (GIS) data layers for the service area, acquired and under licensed from Geographic Data Technology Inc. (GDT). The same data layers, currently utilized by Santa Clarita Transit's paratransit scheduling system, will also be used by Santa Clarita Transit's new fixed-route scheduling system.

The TIN AVL mapping application shall support all geographic features included in the GDT source data. Supported features shall include, but not be limited to street network segments, street names, street addresses, as well as depiction of landmarks such as schools, parks, hospitals, bodies of water, and other points-of-interest. The source data will be provided in ESRI shapefile format.

In addition, TIN shall be able to import data layers created for transit route network, stops, time points, and other map overlays required for the TIN utilizing standard transit scheduling and mapping software functions. See also Section 2.11.3 for further requirements concerning the scheduling system interface.

Initialization of the TIN AVL mapping application using the City-supplied GIS data shall be the responsibility of the Contractor. The Contractor shall be responsible for all necessary refinements, updates, format conversions, and other processing and handling of the geographic data for successful incorporation into the TIN AVL functions. The Contractor shall supply all software, utilities, scripts and procedures necessary for successful importation of the City's geographic data into the TIN so that the system administrator can ultimately perform similar imports in the future without assistance from the Contractor.

All functions necessary for successfully incorporating geographic data into the TIN shall be provided as part of system. These functions shall enable the system administrator to perform necessary updates to and replacement of the AVL data layers and map overlays used by the TIN without requiring extensive or complex manual operating procedures and without requiring significant manual data entry.

Necessary updates of existing GIS data layers from the TIN AVL mapping application shall be possible without loss of prior edits to the layers. Where minor edits or data entry are required prior to importing geographic data, such edits, entries, and corrections shall be stored and become part of the routines (e.g., as a script) for reapplication in subsequent imports. The system administrator shall be able to reapply these edits, entries and corrections on subsequent imports via a minimal set of commands.

2.5.3 Daily Fixed Route and Commuter Schedule Selection

The schedule of trips for each service day shall be automatically selected by the TIN based upon the date, day of the week, and any special schedules applicable to particular days. In general, schedules include weekday, Saturday, and Sunday schedules. In addition, special (exception) schedules are generated for school closures and early-outs, special events, and holidays. Holidays and other special dates shall be definable by the City. The TIN shall check all defined special dates to determine which service days require holiday, school, or special service schedules.

Route (blocks) schedules are generally completed by 11:30 PM. However, the TIN shall support service days that cover time periods over 24 hours in duration and that end at the time of the last pull-in. At midnight, the new day's schedule shall be utilized for vehicles that pull out after midnight. Those vehicles that pulled out before midnight shall continue to operate under the schedule of the day they pulled out until they complete their scheduled block, even if the block completion occurs after midnight. Therefore, for a time period after midnight, the TIN shall allow two schedules to be in effect concurrently. The schedule times for vehicle that operate beyond midnight are currently identified in schedules by times that are greater than 24:00. For example, a vehicle that pulls out before midnight and has a scheduled stop at 1:30 AM will be shown in the schedule with a stop time of 25:30. The maximum overlap in schedules that is anticipated is approximately two (2) hours.

Each weekday, Saturday and Sunday schedule includes trips that only pertain to certain days of the week or particular dates. For example, the weekday schedule may include trips that only operate on selected days of the week. The TIN shall recognize such day-to-day variations in the schedules and only display and use the scheduled trips that apply to the particular service day.

2.5.4 Fixed Route and Commuter Schedule Adherence Monitoring

The TIN shall accurately monitor the schedule adherence of all fixed route and commuter revenue vehicles that are operating on defined schedules. Fill-in vehicles (extra vehicles placed on a route) and special event/service vehicles that are without defined schedules shall not be monitored for schedule adherence.

Schedule adherence shall be calculated at each defined time point and accurately estimated between defined time points. The time delay between the receipt of a vehicle's position and the availability of the calculated/estimated schedule adherence status shall not exceed five (5) seconds. Schedule deviations beyond pre-defined, system administrator-adjustable thresholds shall produce an event.

Schedule adherence to defined time points (i.e., those in official published schedules) shall be based on the scheduled departure time at each time point, with the exception of those specific stops that have both arrival and departure times (e.g., layovers) and the end of a trip. The number of time points ranges from 2 to 20 time points per route per direction. Time point departures shall be determined by the TIN to an accuracy of ±10 seconds, regardless of whether the vehicle stops at the time point or passes the time point without stopping. A vehicle's schedule adherence status shall be available for presentation to the vehicle operator and to TIN workstation users, and for generation of schedule adherence deviation events.

2.5.5 Fixed-Route, Route Adherence Monitoring

The TIN shall accurately monitor the route adherence of all fixed route revenue vehicles, including fill-in vehicles and special event/service vehicles that are operating on defined routes. Route deviations that are beyond pre-defined, system administrator adjustable thresholds shall produce an event. TIN system operators shall be able to disable route adherence monitoring for specific routes, such as routes that have no predefined route pattern.

A vehicle's route adherence status shall be used for presentation to the operator and for generation of route adherence violation events to TIN workstation users.

2.5.6 Turn-back Monitoring (Option)

As an option, the TIN shall detect and adjust for turn-backs within a fixed route and/or commuter vehicle's assigned block. The system shall issue a turn-back event when a vehicle has turned

around before the end of its current trip and proceeds along the route in the opposite direction for a subsequent trip within the same block. Following the turn-back, the TIN shall automatically determine which trip the vehicle has jumped to within its assigned block based on the current time, the vehicle's new geographic location, the vehicle's direction, and the vehicle's schedule. The TIN shall then resume schedule and route adherence monitoring for the vehicle based on the new trip assignment. The passenger count by stop assignments, headsign display, and voice announcements shall be based on the new trip assignment. All turn-backs shall produce events.

2.6 TIN Workstation User Functions
The TIN shall provide functions as specified in the following sections to support authorized TIN workstation users operating from both local and remote TIN workstations.

2.6.1 Event Handling
2.6.1.1 Event Presentation
The TIN shall enable workstation users to rapidly and efficiently detect and respond to events. Events shall be presented to workstation users in a manner that emphasizes the most urgent events requiring response. However, all events within a TIN workstation user's data partition(s) shall be accessible.

Redundant events shall be eliminated in order to reduce the presentation of unnecessary events. In cases where multiple requests to talk, priority request to talk and emergency alarm events are present from the same vehicle, only the first-received, highest priority, unanswered (i.e., to which an TIN workstation user has not responded) event shall be presented. However, a priority request to talk received from a vehicle after an emergency alarm has been answered shall be presented to allow the TIN workstation user to respond to the priority request to talk. Where different mechanical alarms are being reported for the same vehicle, the most recent unacknowledged alarm of each unique alarm subtype shall be presented. Where multiple schedule and route adherence violations are being reported for the same vehicle, only the most recent event of each type shall be presented. Authorized workstation users shall be able to inhibit or change the display reporting thresholds of selected events in order to reduce the volume of events being reported during peak operating periods and during service disruptions. In particular, workstation users shall be able to inhibit the reporting of schedule and route adherence violations and to modify the reporting thresholds in order to control the number of displayed schedule and route adherence violations.

2.6.1.2 Event Selection
The TIN shall enable authorized TIN workstation users to quickly locate and select an event. A convenient mechanism shall be provided that allows TIN workstation users to automatically select the oldest (first received) event in the highest event priority level and the most recent (last received) event in the queue, regardless of the event's priority level. Upon selection of an event by an authorized TIN workstation user, the TIN shall enable the following functions:
- View – examine all information concerning the event
- Edit – insert, delete and modify information concerning the event
- Remove – remove an event without responding to it (see Section 2.6.1.3)
- Incident – create and edit an incident report for the event
- Answer – respond to an event requiring a response, including establishing voice communications, returning a text data message, and acknowledging alarms
- Show Location – Show the current location of the vehicle associated with the event on the AVL map display
- Transfer – transfer control of the event to another authorized TIN workstation user. The TIN shall manage access to events by multiple TIN workstation users in order to avoid conflicts and loss of data that may otherwise occur from multiple operations on the same event.

2.6.1.3 Event Removal

Authorized TIN workstation users shall be able to remove events regardless of their current status. The ability to select multiple events for removal with a single command shall also be provided. Authorized TIN workstation users shall also be able to specify that all events of a particular type be removed with a single command; for example, to remove all schedule adherence messages or all data messages of a particular type with a single command. Removal of emergency alarms shall require additional confirmation from the TIN workstation user before the request is executed. Removal of events shall affect only their presentation to TIN workstation users and shall not affect the historical log, which shall store all events.

2.6.1.4 Emergency Alarms

When a workstation user answers an emergency alarm event, the TIN shall provide a subtle and silent indication back to the requesting vehicle operator that the emergency alarm has been answered and shall automatically initiate covert monitoring on the reporting vehicle (see Section 2.6.5). All other attempts to initiate communications of any kind, including broadcasts, two-way calls and data messages, with the reporting vehicle from any source shall be inhibited during an emergency alarm.

Communications with all other revenue and non-revenue vehicles not in an emergency alarm state shall continue to operate normally, except that functions involving a vehicle in emergency alarm (e.g., a passenger transfer request) shall be inhibited. The TIN shall terminate an emergency alarm if the vehicle operator reporting the emergency alarm subsequently issues a request for voice communications (e.g., priority request to talk). The TIN workstation user shall also have the capability to terminate an emergency alarm without communication from the vehicle operator. However, the system shall issue a warning message and require a confirmation from the TIN workstation user before the emergency alarm is actually terminated. An emergency alarm shall automatically generate an incident report.

2.6.1.5 Event Partitioning

TIN workstation users shall be permitted access to events to the extent permitted by their assigned data partition(s). TIN workstation users with read-only access to specific events shall be able to view the events, but they shall not be permitted to respond to (i.e., acknowledge, open incident, reply, log, etc.) the events. TIN workstation users shall not be permitted view events to which they do not have at least read-only access.

The TIN shall always ensure that emergency events are promptly presented to at least one active (i.e., logged on) TIN workstation user. Events not assigned to a data partition and events in data partitions without a current active user shall be routed to at least one active TIN workstation user, regardless of the data partition assignment(s) of that user. In this special case, the TIN workstation user receiving the emergency event shall have full access to the event.

2.6.2 Vehicle Location and Status (Map-Based)

The TIN, via AVL capabilities, shall provide authorized workstation users with detailed maps of the service areas showing the current locations and schedule/route adherence status of all vehicles within a user's assigned data partition(s). This capability shall be provided at all workstations that are equipped for the display of geographic maps.

Vehicle locations shall be accurately aligned with the streets and routes on which the vehicles are operating. There shall be no visible offsetting of vehicle positions from the displayed streets and routes. If necessary, the TIN shall correct for map and positional inaccuracies and automatically position the displayed vehicle symbols onto the proper streets and routes.

A vehicle's location shall be updated on the map overlay each time new vehicle position data is obtained from the vehicle. If the Contractor's AVL design is based on an exception reporting scheme, whereby vehicle positions are not reported at each polling/reporting interval, then the revenue vehicle positions of scheduled fixed route vehicles that are on-route shall be updated

based on each vehicle's last reported position, on-time performance data and the expected movement along the route (adjusted for the last reported schedule adherence data).

In the case of scheduled fixed route revenue-service vehicles that are either not equipped with AVL equipment or the equipment is not operational, the vehicle locations shall be estimated based on the assigned schedules. For such vehicles, the estimated location shall be depicted on displays with appropriate highlighting or color code to indicate to a viewer that the vehicle location is an estimated location.

Regardless of the method used, the displayed vehicle location on the map shall be updated at least every 60 seconds. Vehicle status information conveyed by this function shall include, but not be limited to, the following attributes:

- Schedule status (early, on-schedule, or late)
- Silent emergency alarm conditions
- Route status (on or off-route)
- Type of vehicle (fixed route, paratransit, supervisor, or other non-revenue, if AVL equipped)
- Non-Scheduled - logged on (e.g., fill-in, tripper, special event vehicles)
- Not logged on
- Operator name
- Direction of travel.
- Vehicle ID
- Route/ Block

TIN workstation users shall be able to quickly and easily configure their map view to show only the attributes that they wish to see.

Proposers shall include screen shots of offered map displays providing the above types of information.

2.6.3 Fixed-Route Service Status (Tabular)

The TIN shall provide information to authorized workstation users for determining the status of specific fixed-route service routes, schedules, and vehicles within the users' assigned data partition(s) without the use of geographical maps. The workstation user shall be able to filter the data presented using common selection criteria, such as date/time, vehicle, vehicle operator, route, block, run, etc.

The following types of information shall be provided:

- A searchable listing of blocks (vehicle schedules) that provides the scheduled arrival times of vehicles at time points and, if data is available, at vehicle stops
- All vehicles that are currently in violation of schedule adherence limits with the early/late status (in minutes) and current route/block assignment of each vehicle
- All blocks that are active for the current service day (e.g., based on holidays, etc.) and the current status of each block
- An indication of active blocks that are currently un-served (e.g., due to an overdue Operator log-on)
- The currently active (logged on) vehicle and vehicle operator for each block
- All routes that currently have tripper and fill-in vehicles active and the number of tripper and fill-in vehicles on each of those routes
- The actual versus scheduled service performance and headways for each route
- Pull-in and pull-out information for each block.

Proposers shall include screen shots of offered displays providing the above types of information.

2.6.4 Vehicle and Route Selection
The TIN shall enable authorized TIN workstation users to quickly identify, through selection, a set of paratransit and fixed route vehicles and routes for the purpose of voice and data communications. Vehicle and route selections shall be restricted according to an TIN workstation user's assigned data partition(s). For example, a workstation user restricted to the fixed route data partition shall only be able to see and make selections associated with fixed-route vehicles, routes, blocks, vehicle operators, etc.

2.6.4.1 Basic Selection Methods
The basic methods of vehicle and route selection that shall be supported are as follows:
- Select one or more vehicles by specifying vehicle IDs
- Select one or more vehicles by specifying vehicle assignment attributes, including operator badge numbers of the current vehicle operators and currently assigned fixed route block route numbers. The TIN shall automatically maintain the correlation between vehicles, vehicle operator badge numbers and block/paratransit route numbers based on the current schedule and log-on data received from the vehicle when operators log in.
- Select one or more specified fixed-route routes by route numbers. Since the set of vehicles associated with a route may change frequently during the service day, the selection of routes shall resolve to the corresponding vehicles only at the time the selection is actually used and not during the selection process itself, which may have occurred at an earlier time. For example, route selections for the data message store and forward function shall pick up new vehicles as they log onto a route during the service day.
- Select all vehicles of a particular type. For example, select all fixed-route revenue vehicles or paratransit revenue vehicles.
- Select all vehicles. The TIN shall provide a dedicated command for executing this type of selection (i.e., the TIN workstation users shall not be required to make manual selections of the vehicles).
- Re-use the selection with which the TIN workstation user previously communicated, or tried to communicate. The TIN shall support this type of selection without requiring the TIN workstation user to explicitly re-select the vehicles and routes involved. The TIN workstation user shall be able to name and save vehicle selections for re-use.

Any combination of the above selection methods shall be applicable interactively in order to construct the desired final list of vehicles and routes. The system shall automatically filter out duplicate vehicle entries that may occur as a result of the selection process.

2.6.4.2 Map-Based Selection Methods
Workstations shall support the following selection methods:
- Select one or more vehicles and routes that are individually picked from the geographical map display.
- Select all displayed vehicles within a dynamically-selected geographical area of the geographical map display. A "rubber-band" type of graphical selection shall be supported for selecting the geographical area. The TIN shall generate a list of all vehicles that are currently displayed within the selected area. The selected vehicles shall be identified by their vehicle IDs and fixed-route block/paratransit route numbers. Once a list of vehicles is generated, the TIN workstation user shall be able to add, delete, and modify entries in the list prior to using it.
- Select all displayed routes within a dynamically-selected geographical area of the geographical map display. A "rubber-band" type of graphical

selection shall be supported for selecting the geographical area. The TIN shall generate a list of all displayed fixed routes that pass through the selected area. Once a list of routes is generated, the TIN workstation user shall be able to add, delete, or modify entries in the list prior to using it.

Users viewing both revenue and non-revenue vehicles shall also be able to specify either or both types of vehicles to be part of the selection. The ability to use a combination of both basic and map-based methods to make a selection is considered desirable.

2.6.5 Covert Monitoring

TIN workstation user selection of an emergency alarm shall automatically initiate covert monitoring (i.e., a one-way voice call from the vehicle to the selecting TIN workstation user). TIN workstation user initiation of covert monitoring without an associated emergency alarm shall not be permitted.

Covert monitoring shall enable the TIN workstation user to monitor sound from the vehicle that is in an emergency alarm state. The voice channel number selected by the system for covert monitoring shall be made available to the TIN workstation user at the workstation so that this information can be reported to road supervisors who need to monitor the channel. The TIN shall be capable of supporting simultaneous covert monitoring sessions with at least two vehicles.

While covert monitoring is active at a workstation, all other workstations shall continue to operate normally, including support for all two-way voice and data communications with other revenue and non-revenue vehicles.

The TIN workstation user who selected the emergency alarm, thus initiating a covert monitoring session, shall be able to end the covert monitoring session (but not the emergency alarm) at any time by entering the proper covert monitoring override commands.

2.6.6 Data Messaging

A major goal of the TIN is to greatly reduce the need for voice communications and to streamline the dispatching function through the extensive use of data messaging between Operators and TIN workstation users. To this end, the TIN shall be designed to efficiently support data messaging (i.e., the exchange of text messages).

The TIN shall enable authorized TIN workstation users to send data messages to one or more selected vehicles and routes using any of the selection methods specified in Section 2.6.4. Custom, free-form data messages and a set of pre-defined (canned) data messages shall be supported. Pre-defined data messages shall be configurable by authorized TIN workstation users and shall be available for rapid selection. Separate pre-defined message lists shall be provided for fixed-route, commuter and paratransit operations. The proper list shall be presented to the TIN system user based on the user's data partition and the vehicle type.

2.6.6.1 Data Messaging with Response

The TIN shall enable users to specify a response requirement for each text data message that is issued. Response requirement options supported by the TIN shall include: "no response", "acknowledgment of receipt", and "yes/no". For messages requiring a response, the TIN shall request a response from each Operator to whom the data message is directed. Pre-defined (canned) data messages shall each have a pre-defined default response requirement. The default response requirement for custom messages shall be "acknowledge".

The TIN shall keep track of the status of responses to issued data messages that require a response. The TIN shall display to the initiating user, by message, all responses received and those still required but not yet received. Responses shall not be displayed in the event queue. Rather, a separate display area shall be used for displaying and managing these responses.

For each message issued that requires a response, the user shall be able to display a list of the receiving vehicles and their assigned fixed-route block or paratransit route numbers, an indication of those that have responded, and the response received. Vehicles that have not responded shall be listed at the bottom of the list. The text of the

original data message and the time it was sent shall be displayed at the top of each list. The TIN shall support situations where multiple messages requiring a response are active at the same time for the same TIN workstation user. In this case, the TIN shall associate the responses with the proper message. The active messages and the list of responses received for each shall be preserved when an TIN workstation user logs off and automatically transferred to a new TIN workstation user who logs on and takes over the responsibility of the TIN workstation user who initiated the active messages. Alternatively, a workstation user shall have the capability to manually initiate a transfer of the lists to another workstation user who may not be logged on yet or to whoever assumes the responsibility of the workstation user who initiated the messages.

TIN workstation users shall be able to choose the message responses to be displayed from a list of active messages for which responses have been required. TIN users with defined access shall be able to delete a message from the active list even if all of the responses have not been received.

2.6.6.2 Data Messaging — Store and Forward

The TIN shall enable authorized workstation users to send data messages that are designated as "store and forward" messages. Store and forward message capability shall also apply to messages that require a response. Workstation users shall be able to address "store and forward" messages to selected vehicles in a manner similar to normal data messaging and shall be able to designate a bounded (start/end) delivery time period within the service day. A "store and forward" message shall be delivered to the selected vehicles that are active (i.e., logged on) and also those that become active at any time during the designated time period. In no case shall a stored message be delivered more than once to the same vehicle operator while operating the same vehicle and block (or paratransit route) number.

A "store and forward" message shall remain available for delivery until the user-specified delivery time period has ended, until the message is deleted by the TIN workstation user, or until the user-specified delivery time, whichever occurs first.

Proposers shall describe the proposed approach for handling store and forward messages and any capacity limitations of the proposed design.

2.6.6.3 Re-route Notices

The TIN shall provide a means for workstation users to issue re-route notices that describe detours and other short-term route changes to active vehicles based on their route assignments. Once defined, re-route notices shall be automatically delivered to all vehicles that log onto the affected routes throughout the service day. Re-route notices shall remain in effect until they are removed by a authorized workstation user, or until a user-specified expiration date has passed.

2.6.7 Voice Communications

The TIN shall enable authorized workstation users at workstations equipped for voice communications to communicate via voice using, as a minimum, the methods described in the following sections.

2.6.7.1 Calls to TIN-equipped Vehicles

Voice calls to one or more selected TIN-equipped vehicles shall be supported using any of the selection methods specified in Section 2.6.4. In this normal mode of operation, the TIN shall automatically select an available and open voice radio channel as specified in Section 2.4.1.

Call mode options available to the workstation user shall include calls to the vehicle handset, calls to the vehicle radio speaker, and one-way calls to the vehicle's public address system.

2.6.7.2 Channel Selection
The TIN shall enable authorized workstation users to conveniently initiate and receive calls on an available voice radio channel in order to communicate with vehicles equipped only with mobile radios and with field personnel equipped only with portable radios. These calls shall utilize a pre-designated voice channel that is selectable by the workstation user.

2.6.7.3 Voice Fallback Mode Communications
The TIN shall enable authorized workstation users to conveniently initiate and receive voice calls from vehicles operating in voice fallback mode. The TIN shall provide users with a means of quickly determining the communications status of individual vehicles and a means to quickly determine the assigned fallback channel for any vehicle that is in fallback mode.

2.6.7.4 Voice Communications Patching
The TIN shall enable authorized workstation users (e.g., dispatchers) who are equipped for voice communications to establish two-way voice connections with non-revenue vehicle Operator (e.g., Road Supervisor or Maintenance) to a revenue vehicle Operator

2.6.7.5 Instant Voice Playback
The TIN shall enable authorized workstation users who are equipped for voice communications to perform an immediate playback of audio segments from the most recent 10 minutes of voice communications at the workstation position being used. Audio segments shall be quickly accessible so that a user may instantly replay any portion of a voice conversation, even while communications are still in progress and being recorded. This capability would be used to, for example, listen again to a recent incoming voice passage that was unclear.

2.6.8 Route/Schedule Adherence Status
The TIN shall monitor the route/schedule adherence status of all fixed-route revenue vehicles. All vehicles that are off-route and/or off-schedule by more than pre-defined threshold values (see below) shall be identified on both tabular and map displays to workstation users who are assigned to the corresponding data partition(s). Route and schedule adherence status data presented to users shall include the number of minutes of deviation from schedule and the distance off-route.

2.6.8.1 Route and Schedule Adherence Thresholds
The threshold values for declaring a fixed-route vehicle to be off-schedule and off-route shall be user-adjustable. Initially, vehicles that deviate from their schedules by more than one minute early and more than 5 minutes late shall be handled as schedule adherence violations; and vehicles that deviate from their scheduled routes by more than 500 feet shall be treated as route adherence violations.

2.6.8.2 Route and Schedule Adherence Disable/Enable
Authorized users shall be able to disable/enable schedule and route adherence alarms for selected vehicles, for all vehicles on selected routes and for all vehicles while they are located within a specified geographic area. The objective of this capability is to minimize nuisance alarms; for example, when vehicles are forced to detour or are delayed due to a known traffic problem.
These disabled conditions shall be identified in a list available to all authorized workstation users for review and for re-enabling actions. In addition, authorized workstation users shall be able to enable and disable all schedule and route adherence alarms for all vehicles. All such enabling and disabling shall be logged.

2.6.8.3 RSA Detailed Data Collection
Authorized users shall be able to selectively collect more detailed fixed route schedule and route adherence data without regard to thresholds in order to allow monitoring of specific transit operations. Detailed schedule and route adherence data collection for specific routes, vehicles, and vehicle operators shall be supported. The data collected shall include: date/time stamp, vehicle operator badge number, vehicle ID, block number, vehicle location, and early/late status at each time point.

2.6.9 Fixed-Route Block Status
The TIN shall verify that fixed-route operators log on in time to support a defined block's schedule and to verify that all currently scheduled blocks are serviced by a logged-on vehicle throughout the service day. The TIN shall issue an alarm message to the appropriate workstation user(s) if a block scheduled for service remains open (i.e., without a logged-on vehicle) for more than a user-adjustable time period. This time period shall initially be set to 2 minutes and shall be adjustable from one minute to at least 15 minutes. The user(s) shall also be notified when Operators log on to open blocks.

2.6.10 Operator Relief Status
The TIN shall enable authorized workstation users to monitor the status of scheduled relief for fixed-route vehicle operators. A complete schedule of relief for the service day shall be provided that shows the status of each scheduled relief. The status indications for relief shall include whether the relief has started, is completed, and has been missed.

2.6.11 Incident Management
The TIN shall support authorized workstation users in the creation, maintenance, tracking and distribution of incident reports. Creation of incident reports shall be triggered automatically for some event types and sub-types (e.g., on receipt of an emergency alarm, or tagging of the video system) and on user demand for all other event types and sub-types and for incidents not linked to events. The system administrator shall be able to select which events automatically generate an incident report.

Upon creation of an incident report, the TIN shall automatically fill in all data for the report that is available to the system, such as vehicle IDs, badge numbers, location, current date and current time. The automatically filled in location shall be a reverse geo-coded street address based on the vehicle's reported position (lat/long). Authorized workstation users shall then be able to edit all data fields and fill out any additional data fields defined for the incident report. Authorized workstation users shall be able to edit incident report data until the incident is closed.

Road supervisors, via their Mobile Computer Terminals, shall also have access to existing incident reports for editing as well as viewing, and shall also be able to open new incident reports as desired. Incident reports shall automatically be distributed to appropriate locations on the TIN network. The Contractor is encouraged to develop a system that permits multiple events to be linked to a single incident report. All proposals should describe the proposed implementation of this function.

The TIN shall provide functions to enable the system administrator to specify which events will trigger incident reports and the incident report format to be used, create new incident report formats, edit existing report formats, and integrate new incident report formats into the system. These incident report maintenance functions shall be available on-line without interrupting current system operation.

2.6.12 Incident Playback
The TIN shall include a playback capability that enables authorized workstation users to quickly recreate and observe the exact conditions that existed within the system at a previous time for the purpose of analyzing incidents. The playback function shall permit an authorized workstation user to rapidly and selectively retrieve data for any time within the last 36 months without requiring the loading of archival data from offline media or effecting system performance. A means shall be

provided to restore and play back data from time periods prior to the 36-month online history. Proposers shall describe the method for accessing data older than 36 months.

Observation of the conditions that were present at the selected time shall be supported via TIN displays and reports at the requesting user's workstation. The ability to play back the conditions that existed at a previous time shall be unaffected by any database, display, or report changes that have occurred since that time. The normal online operation of the TIN at other user workstations shall be unaffected by the playback function.

Means shall be provided to enable users to start a playback beginning at any selected date and time. Users shall not be required to play back data for an extended duration in order to properly initialize the system conditions at the beginning of the playback period specified by the user. Users shall be able to control the speed and execution of the playback and shall be able to start and stop the playback, fast forward/backward, pause/resume the playback, and playback in slow motion. While in pause mode, no further data updates shall occur, but users shall be able to view and move among all displays and produce all reports.

The playback shall recreate the exact conditions that existed at a particular time and allow presentation of all system conditions, including presentation of vehicle locations via an AVL map display, and production of all reports. The actual displays that were originally present on each workstation monitor do not need to be recreated; only the system conditions need to be recreated. These system conditions shall include all application program generated outputs, alarms, events, incidents, all vehicle locations, schedule and route adherence statuses, information on all reroutes in effect, all data communications, and any user-entered data and commands that initiate communications, initiate actions, and modify the database. The AVL presentation for playback shall include a means of determining the average speed of vehicles, if this is not already a capability of the normal displays.

Proposers shall describe any limitations in the retrieval of data imposed by the offered system (e.g., a maximum number of vehicles for which data can be simultaneously retrieved). The City prefers that the same displays be utilized for playback as for actual operations, except that a clear, distinguishing attribute such as a colored border or other means shall be provided to distinguish displays presented during playback from those presented during actual operations.

2.6.13 Report Production

The TIN shall support production of pre-defined reports, which may be requested immediately upon user demand and on user-defined schedules. Report schedules shall support one-time production of reports at specific dates and times and periodic report production at user-defined intervals ranging from at least one hour to one year. In addition, the reporting function shall permit the definition of predefined collections of reports that can be conveniently referenced as a group. The destination of the report output shall be user-selectable and shall be routed to the user's display (for immediate requests) and any user-selected printer(s) on the TIN. Reports directed to user displays shall appear the same as the corresponding report when printed. Report production shall also support storage of report output into files at a user-designated location on any accessible network file server. Report output file formats shall include a generic text format, Excel, HTML format, and Acrobat PDF format.

As a minimum, the Contractor's standard reports shall be provided. Other specific reporting requirements are identified in Section 3. In general, the format of the reports may be the Contractor's standard, provided that the required information is presented. Crystal Reports is preferred.

2.6.14 System Administration Functions

Access to the following TIN workstation user functions shall be restricted to system administrators.

2.6.14.1 Fixed-Route Data Retrieval

The TIN shall enable the system administrator to manually initiate retrieval of all defining data for the fixed-route schedules. Schedule data required for proper operation of the TIN shall be retrieved from the proposed fixed-route scheduling system (see Section 4). This data shall include, but not be limited to, route shapes and descriptions, trips, runs, time

points, stops and block definitions. The retrieved data shall be used by all functions within the TIN, including route and schedule adherence monitoring.

Transfer of route definition data to the vehicles shall occur directly via a wireless system rather than through manual handling of physical media. In addition, functions shall be provided to enable the user to validate, test, repair and, if necessary, discard a retrieved data set prior to its cutover to online operation. These functions shall be supported without interfering with online operation of the TIN using the currently active data set. The cutover to online operation for a retrieved and validated data set shall be coordinated within the TIN to prevent operation errors due to inconsistent data (e.g., route data that differs between the fixed end and the vehicles). The cutover process shall minimize any interruption to online operations and in no event shall such an interruption exceed 10 minutes. Proposers shall describe the cutover process for a new set of data and shall define all impact to online operations, including whether system downtime is required. If system downtime is required, the description shall state the maximum downtime that will occur.

2.6.14.2 Interim Schedule Maintenance

Schedule changes will normally be made in the scheduling system. The TIN shall retrieve the updated schedules from that system as needed, rather than requiring corresponding manual entries of changes into the TIN. The TIN shall nevertheless enable authorized system administrators to manually make adjustments and corrections to the last retrieved schedule definition data for use in the TIN on an interim basis.

All such adjustments and corrections shall be visually distinguishable by users from the base data defined during the full retrieval process. All such manual changes shall be immediately available to all affected (fixed-site) TIN functions. There is no requirement to send interim schedule changes that are manually entered into the TIN back to the scheduling system.

2.6.14.3 AVL Map Retrieval and Maintenance

The TIN shall enable authorized system administrators to manually initiate retrieval of new AVL map data from the fixed-route scheduling system. The update process shall enable input, validation and correction of new map data, including addition of map layers, without affecting current system operation and, once complete, it shall permit a controlled and rapid switchover to the new data. Corrections and additions made to the map on the TIN shall be stored so that these corrections and additions can be re-applied on subsequent retrievals of newer versions of the base map without requiring re-entry of any of the changed data. A simple means of reverting to a prior map shall also be provided.

A means of switchover to new map data shall be provided that minimizes system disruption while updates are being distributed to all components of the system that require map data, including map enabled workstations and, if applicable, the vehicle MDTs and MCTs. All distribution shall be automatic and shall not require the system administrator to physically access each component. Regardless of the method used, system downtime shall not exceed 10 minutes for incorporation of new AVL map data.

Proposers shall describe the cutover process for incorporation of new AVL map data and shall define all impact to online operations, including whether system downtime is required. If system downtime is required, the description shall state the maximum downtime that will occur.

2.6.14.4 Destination Sign Data Maintenance

The TIN shall enable the system administrator to create and maintain trigger location data and text message data for fixed-route vehicle exterior destination signs. Destination sign text messages should be fully managed within the TIN, rather than using numeric codes that must be coordinated with separate, external sign programming facilities. The Contractor shall be responsible for determining whether the existing Santa Clarita Transit destination signs can support this approach as well as developing specs for destinations signs procured in the future.

The City would prefer that destination sign changes be triggered based upon the starting and ending of user-specified trips. The requested system should also validate the destination sign changes using geographic location-based triggers. The system should allow geographic location-based triggers to be located anywhere along routes within the service area. The definition of geographic location-based triggers shall not require manual entry of geo-coded locations. A means of easily viewing and modifying location based triggers using a map of the service area with route overlays is strongly preferred. All location-based trigger designs shall utilize schedule data to determine if a trigger should occur when the vehicle passes through the trigger location.

All maintenance of destination sign data shall be possible without interrupting current online operations. A simple means of cutover to a new destination sign data set shall be provided that coordinates with other changes, such as route changes, that may also be pending. The distribution of destination sign data shall be according to the requirements specified for bulk data transfer.

2.6.14.5 In-Vehicle Announcement Data Maintenance

The TIN shall enable the system administrator to maintain data for all interior and exterior fixed-route vehicle audio announcements. The same maintenance functions shall also support visual announcements. Audio and visual announcement messages shall be fully managed within the TIN maintenance facilities. The use of numeric codes for messages that must then be manually coordinated with separate, external annunciator programming facilities is not acceptable. Capacity for at least 150 audio and 150 visual announcements per route shall be provided.

The maintenance feature shall include functions to create, edit and delete audio and visual announcements and their associated triggers and text descriptions. The City of Santa Clarita strongly prefers software maintenance features that utilize rules-based trigger algorithms. For audio announcements, a method shall be provided for specifying output options of "interior", "exterior" and "both". A method for synchronizing an audio and visual message together via the same trigger or by other means such as or rule-based algorithm shall be provided. The maintenance feature shall enable prioritization of announcements, thereby enabling higher priority announcements to interrupt lower priority announcements when triggers overlap.

Triggering of automatic audio and visual announcements shall include, but not be limited to, the following methods:

- Approaches/departures to/from scheduled stops and timepoints – Triggers for next stop announcements based on geographic location or distance from the approaching stop/timepoint are preferred.
- Arrival within a defined geographic area – Triggers that occur upon vehicle entry into a user-specified physical area while operating on a user-specified trip. Support for triggers of this type without a trip association shall also be supported. Triggers of this type shall not require manual entry of geo-coded location data. A means of quickly identifying the trigger locations using a map of the service area with route overlays is strongly preferred
- Departure from a defined geographic area – Triggers that occur upon vehicle exit from a user-specified physical area while operating on a user-specified trip. Other requirements are the same as for (b), above
- Time of day
- Door open event
- Door close event.

Support for manual (i.e., Operator-triggered) announcements shall also be provided. All maintenance of in-vehicle announcement data shall be possible without interrupting current online operations. A simple means of cutover to new announcement data sets shall be provided that coordinates with other changes, such as route changes, that may also be pending. The distribution of announcement data shall be according to the requirements specified for bulk data exchange.

The use of time for this event type will require the TIN on-board system to estimate the time until arrival at the stop or timepoint and then trigger the announcement when this estimate is less than a specified amount of time.

2.6.14.6 System Configuration Monitoring and Control
The TIN shall provide system administrators with the ability to review and revise the TIN configuration and parameters. The ability to monitor the status of all TIN components shall also be provided. Functions to control system performance monitoring and to display and analyze server and workstation processor resource utilizations shall also be provided. Control operations that shall be supported shall include, but not be limited to, failover switching, server and LAN administration, management of interfaces, and control of TIN components, including the radio system.

The TIN shall provide system administrators with the ability to add, edit, and delete Users, passwords, and change user privileges and partitions.

2.6.15 Yard Server/Workstation
The Yard Subsystem shall include a Yard Server/Workstation that shall be located in the maintenance area.

The TIN Yard Server/Workstation shall perform dual functions as the server for the TIN Wireless LAN and as an TIN workstation (excluding voice call capabilities). The Yard Server/Workstation will be used by SCT personnel to manage wireless transfer of data to and from the vehicles, and the transfer of data to and from the TIN Network interface. The Yard Server/Workstation shall be used by maintenance and supervisor personnel to view bus locations and status, road call incidents, review vehicle health information, review video retrieved from the buses, generate management reports, and possibly to enter bus to line assignments.

Proposers shall provide the specifications for the Yard Server/Workstation.

2.6.16 Bus Assignments (Option)
TIN shall maintain a yard plan, showing the current vehicle locations, ID's, availability status and assignments of buses to operators and work assignments. This plan shall be made available in graphical format on the TIN workstations to the dispatchers and maintenance personnel.

TIN shall make bus assignments based upon next bus available in a preferred bus series at a ready line operators/lines at least sixty minutes prior to the time the operator is ready and scheduled to pull out. TIN shall accept a list, and changes to the list, of preferred series for each line, in preference order for the line. TIN shall select the first available bus in the highest available preferred series to assign to the operator/line and present that selection at the TIN workstations.

TIN shall also be able to make assignments based only upon pullout schedule. TIN users shall be able to flag a bus as being inoperable to preclude an assignment of that particular bus.

TIN shall accept assignments of buses to unscheduled work assignments. TIN shall automatically assign buses to unscheduled work assignments.

TIN shall accept holding of bus assignments by the TIN workstations. TIN shall send an alert to the TIN workstations if a pullout is not made within a settable time after it is due. TIN shall update all necessary locations after changes have been made and ensure that all TIN components that may require this information have access to the updated information.

Proposers shall provide details of their existing software for this functionality.

2.7 Revenue Vehicle Functions
The TIN shall provide revenue vehicle functions as specified in the following sections. TIN equipped revenue vehicles shall be capable of providing all required functions while operating anywhere within Santa Clarita Transit's defined service area and without requiring manual reconfiguration of any kind.

2.7.1 Vehicle Operator Support Functions

2.7.1.1 Operator Logon/Logoff
As a minimum, the vehicle operator logon data shall consist of the operator badge

number, vehicle ID and a work ID. The work ID shall be the operator's assigned run number for fixed-route and commuter service. The vehicle operators shall not be required to enter the vehicle ID or be able to change the vehicle ID. The vehicle ID shall be programmed into and read from the Mobile Data Terminal.

The TIN shall verify that all logon data is valid before accepting the logon. The validity checks to be performed on each data field are as follows:

- Operator badge number - Verify that the Operator badge number entered is a valid number in the current employee list, that the employee is permitted to perform a vehicle logon and that the same employee is not already logged onto another vehicle.
- Vehicle ID - Verify that the vehicle ID is a valid number in the current vehicle list.
- Work ID number – For revenue logons, verify that the entered work ID number is valid for the current day and time and that it is not already logged in to another vehicle. For non-revenue logons, entry of this number shall be optional.

Invalid logons shall be rejected. After three consecutive invalid logon attempts the TIN shall log an event that indicates all relevant information about the invalid logon attempt, including the badge number used, the vehicle ID, run number, and date and time.

All valid logons and logoffs shall be logged as events that indicate all relevant information about the logon and logoff, including the operator badge number, vehicle ID, run number, block/route number (for revenue logons), and date and time. A successful logon shall trigger the delivery of any relevant stored data messages to the vehicle.

If an operator fails to log on prior to leaving the yard, the TIN shall issue an audible alarm to the operator and shall prompt the operator to log on. Workstation users shall be immediately notified of this condition via an alarm. Successful logon shall not be required in order to use any of the vehicle communications functions of the TIN on-board system.

2.7.1.2 Operator Changes

The TIN shall support en-route changes in the assigned operators for cases such as mechanical breakdowns and operator substitutions. In these cases, the operator may send a pre-defined data message to indicate the reason for the change. The operators shall be required to perform an operator logon/logoff when the change takes place.

2.7.1.3 Data Messaging

The TIN shall enable Operators to send predefined text data messages to workstation users with a minimum of interaction. The TIN on-board system shall support at least 150 general pre-defined messages plus 20 paratransit and 20 commuter messages of at least 80 characters in length. The TIN shall also allow the system administrator to define and revise the set of predefined messages and to schedule the transfer of the revised messages to all vehicles.

Separate predefined message sets shall be provided for commuter, paratransit, and local fixed-route vehicles. Operator initiated messages shall be handled as events and shall be subject to all of the requirements of events, including event priority and event partitioning.

The TIN shall provide the means to designate the routing of selected pre-defined vehicle operator-initiated data messages. It shall be possible to route pre-defined vehicle operator-initiated messages to a specific workstation user (e.g., a fixed route or paratransit dispatcher). If a designated workstation user is not logged on, the message shall be rerouted to another user; in no case shall a message from a vehicle operator be lost.

Operators shall be able to review recently received messages at any time with a minimum of interaction. The TIN on-board system shall be capable of retaining at least the last 8 received messages for operator review. The received messages shall be ordered chronologically with the most recently received message presented first.

Messages requiring a response shall be clearly indicated to the operators. Operators shall

be able to respond with a minimum of interaction. Message responses shall be routed to the requesting TIN workstation user.

2.7.1.4 Voice Communications
The TIN shall enable operators in vehicles to easily initiate voice communications with workstation users through the use of request to talk and priority request to talk functions. These functions shall notify the appropriate workstation user of the request to talk. Selection of a radio channel for the subsequent voice communications shall not require operator intervention.

When a vehicle is placed into fallback mode, the operator shall be notified that the vehicle is operating in fallback mode via a continuously displayed message. All communications with a vehicle in fallback mode shall be via the operator's handset or speaker, and not the vehicle's PA system. All vehicles not impacted by the failure shall continue to operate in the normal communications mode.

2.7.1.5 Passenger Transfers
The TIN shall enable operators to arrange passenger transfers to other revenue vehicles. Transfer types to be supported shall include fixed-route to fixed-route transfers and transfers from paratransit to fixed-route vehicles. Under normal conditions, these transfer arrangements shall be possible without the assistance or intervention of a workstation user and without the use of voice communications. Dedicated functions for different transfer types shall be provided in order to minimize the operator interaction required to request and to acknowledge/reject transfer requests. A special transfer request function shall also be provided to indicate that the requesting passenger requires mobility aid (e.g., a wheelchair passenger).

The TIN shall direct a passenger transfer request to the most appropriate destination vehicle on the intersecting route/direction specified by the requesting operator. The request shall be automatically rejected if the most appropriate destination vehicle is currently more than a system administrator configurable amount of time behind schedule. For requests not automatically rejected, the operator of the destination vehicle shall be notified via data messaging of the transfer hold request. The notification information shall include, but not be limited to, the requesting vehicle ID and route, the intersection point and the estimated arrival time of the requesting vehicle. The operator of the destination vehicle shall have the capability to accept or reject the transfer hold request. If the request is accepted, the estimated arrival time of the destination vehicle at the intersection point shall be calculated by the TIN and reported to the requesting operator. The system administrator shall have the capability of disabling TIN support of passenger transfers.

2.7.1.6 Silent Emergency Alarms
The TIN shall enable operators to issue a silent emergency alarm for which activation is not readily observable by passengers on the vehicle. The preferred method is via a foot or hands free switch. Activation of this alarm shall result in an emergency alarm event that is reported to all appropriate TIN workstation users. If a voice call is already in progress on the vehicle at the time an emergency alarm is activated, then the emergency alarm shall be issued immediately upon termination of the voice call.

The workstation user selection of an emergency alarm event shall provide a subtle, non-obvious indication to the operator that the emergency alarm has been received and acknowledged and that covert monitoring has been initiated. During covert monitoring, periodic interruptions to the covert monitoring transmission that are required for data transmissions (i.e., vehicle location) and to avoid overheating of the mobile transmitter are acceptable, provided these periods are kept as short as possible. During an emergency alarm event, the headsign for the bus shall display an emergency message such as "Call Police."

The operator who issued the emergency alarm shall be able to cancel the alarm by making a voice call request. Emergency alarms shall be sent to the appropriate workstation users regardless of whether the vehicle is in fallback mode or in the normal

mode of operation. The silent emergency alarm function shall provide a signal to the on-board camera system indicating the activation of the silent emergency alarm. This requirement shall include the provision of all hardware (e.g., switch, if required) wiring, and installation to fully implement this function.

2.7.2 Other Vehicle Functions

2.7.2.1 Vehicle Location Reporting

Reporting of vehicle locations based upon on-board Global Positioning System (GPS) equipment shall be provided by the TIN. In addition, TIN shall utilize a dead reckoning algorithm to provide vehicle locations when the GPS signal cannot be received. The dead reckoning shall utilize inputs from the odometer, piezo gyro, etc.. Proposers shall provide details of their dead reckoning system.

To minimize data transmission requirements under non-emergency conditions, a report-by-exception scheme is preferred, whereby schedule and route information is maintained on-board each vehicle. In addition, a scheme that reports location based upon a combination of distance traveled and elapsed time is preferred. Location data shall always be reported as part of all data messages.

Regardless of the reporting scheme used, vehicles shall report their location at least once every 60 seconds. After the initial transmission (per Section 2.4.6.1) of an emergency alarm, vehicles in an emergency alarm state shall report their location at least once every 30 seconds.

2.7.2.2 Mechanical Alarms

The TIN System shall detect certain vehicle warning and failure conditions and generate an appropriate mechanical alarm event to workstation users. A minimum of twenty different mechanical alarm conditions shall be supported. Additional mechanical alarms shall be stored onboard and transferred via the Bulk Data Transfer. The conditions that can be alarmed shall include any warning and failure condition that is detected by the vehicle's onboard monitoring systems, as well as those conditions for which a discrete status signal is available. The specific alarms to be supported will be determined after contract award.

2.7.2.3 Lift/Ramp Data

The TIN shall collect lift/ramp data indicating when the lift/ramp on a vehicle is raised and lowered. The data collected shall enable generation of statistics for lift/ramp usage by location and the time it takes to board/de-board passengers using the lift/ramp.

2.7.3 Fixed-Route-Specific Vehicle Functions

2.7.3.1 Route/Schedule Adherence Status

The TIN on-board system shall automatically display route and schedule adherence status to the operator. The TIN on-board system shall display schedule adherence status in minutes preceded by a "+" (early) or "-" (late) as appropriate.

2.7.3.2 Automatic Passenger Counting

The TIN shall include automatic passenger count (APC) capabilities on the fixed route and commuter fleets. APC data indicating the number of passengers boarding and alighting at each stop shall be collected. APC count data accuracy at the stop level shall be at least 95% for boardings and alightings, separately. Count data shall be correlated with defined bus stops based upon a vehicle's route, block, trip, location, and the date/time that the passenger counts were collected. Bus stop correlation may occur on the vehicle, via batch processing at the fixed end, or a combination of both methods as is appropriate for the Contractor's design. Collected APC data shall be automatically transferred from the vehicles for central processing and storage via the TIN bulk transfer function. Current run boarding and alighting data should also be available to the driver in

real time so as to determine available seating capacity.

Collected APC data shall be processed in order to ensure that the data is properly correlated to bus stops and that the data is statistically valid for use in NTD reports and for planning purposes. This processing shall include removal of clearly erroneous data, such as may occur from sensor failures.

Processing shall also remove data for buses that would otherwise improperly affect statistical results for monitored bus routes due to temporary and unanticipated changes to the operation of buses on those routes. Changes of this type to be detected shall include, but not be limited to, significant off-route operation, significant off-schedule operation, breakdowns, and unscheduled turn-backs. Parameters for determining various filtering thresholds required by the processing shall be definable by the system administrator.

Processed APC alighting and boarding data shall be accurate at the stop level to within 5% of manually collected ride checker data for the same set of trips. For 85% of all stops, the boarding and alighting counts shall be exact when compared to actual. For 90% of the stops, the counts shall be within 1 of actual. For 97% of the stops, the counts shall be within 2 of actual. This will include stops for which there was no observed boarding or alighting activity.

Processed APC data shall be stored for user access via the Information Retrieval function. The onboard system shall have sufficient capacity to store a minimum of 7 days of APC data. APC reports should provide passenger miles in addition to total passengers per trip. Counts from multiple door openings close to a stops shall be correlated to that stop. The Contractor's standard APC reports shall be included with this option. APC hardware requirements are described in Section 7.15.12.

2.7.3.3 Farebox Interaction

The TIN shall interface with the City of Santa Clarita Transit's GFI Odyssey fareboxes and Cubic fare system. The TIN shall support all functions necessary to fully implement the interface supported by the farebox. The supported functions shall include, but not be limited to, a single point of log-on to both TIN and farebox system, supplying farebox log-on/log-off data, GPS vehicle location and date/time data from the farebox to the TIN. Detection of and TIN event issuance for farebox "bypass" and "tamper" alarms and other alarms shall also be supported. Farebox interface requirements are described in Section 7.15.11

2.7.3.4 Destination Sign Control

The TIN shall provide for automatic control of all front and rear destination signs in TIN-equipped fixed route and commuter vehicles that are equipped with external interfaces. The destination signs shall be automatically updated by the system at Operator log-on and at predefined points along each route (e.g., at the end of a trip). The points at which destination sign messages shall be automatically changed shall be definable by the system administrator. The automatically controlled messages shall be displayed in the same fonts, character heights, and wording that are currently in use by Santa Clarita Transit.

All new and revised destination sign data should automatically transferred to the vehicle without individual programming of each sign via memory cards and/or other manual methods.

Headsigns shall automatically change when a bus interlines.

2.7.3.5 On-Board Vehicle Audio Announcements

The TIN shall provide automatic audio announcements in both English and Spanish to passengers on-board fixed-route and commuter revenue vehicles. This function shall support next stop announcements as well as annunciation of major intersections, key transfer points, promotional information, public service information, Operator-initiated messages and advertising. Written scripts (in English and Spanish) for the initially required announcement messages and corresponding location names where announcements are to be made will be supplied by the City for recording and

implementation by the Contractor. The system should include a proven text to speech software package that can be used to prepare future English and Spanish recordings. The Contractor shall initialize the audio recordings and announcement trigger points to support City -provided locations and announcements.

Configuration of audio announcements shall permit triggering of specific messages based upon a variety of conditions; see Section 2.6.14.5 for specific triggering requirements. Additionally, the capability to randomize playing of timed announcements, such as advertising and public service announcements, is preferred. The TIN shall not issue next stop messages when the vehicle is off-route. Next stop, major intersection and key transfer point announcement capacity shall be sufficient to support all of the routes in the Santa Clarita Transit service area and all of the trips made by each vehicle during a service day, plus a 50% spare capacity for other types of announcements.

The TIN shall include facilities necessary to allow the City to revise the initial, Contractor supplied messages and to record additional messages as its services and routes change. All programming features of the supplied maintenance functions shall be fully supported by the in-vehicle announcement capabilities. A method for installing announcements on vehicles that does not require direct programming of each announcement device via memory cards and/or other manual methods shall be provided. Audio levels shall be controllable by the vehicle operator within a usable audio range. The operator shall have the capability of manually selecting from a menu of predefined messages for announcements to passengers that may override an automatic announcement; however, operators shall not be able to disable initiation of audio announcements. The override shall be reported as an event. TIN shall also allow PA overrides of automatic announcements.

Announcements shall be accurately displayed 99% of the time.

2.7.3.6 On-Board Vehicle Visual Announcements

The TIN shall provide automatic visual announcements in both English and Spanish to passengers on-board fixed route and commuter vehicles. This function shall support next stop announcements as well as annunciation of major intersections, key transfer points, promotional information, public service information, Operator messages, and advertising. Written scripts (in English and Spanish) for the initially required announcement messages and corresponding location names where announcements are to be displayed will be supplied by the City for display implementation by the Contractor. The Contractor shall initialize all messages and their associated trigger points to support City provided locations and announcements.

Configuration, maintenance and capacity requirements shall be the same as for audio announcements. A means of coordinating visual announcements with corresponding audio announcements shall be supported. As with audio announcements, the TIN shall not display next stop messages when the vehicle is off-route.

The Operator shall have the capability of overriding the automatic initiation of visual announcements and instead manually select from a menu of predefined messages for display to passengers. The override shall be reported as an event.

2.7.3.7 Vehicle Exterior Audio Announcements

The TIN shall provide exterior announcements in both English and Spanish to passengers boarding vehicles. The exterior announcements shall be automatically activated by the system at predefined points along each route in order to announce route and destination information to boarding passengers. At a minimum, exterior announcements shall be coordinated with destination sign messages and shall be triggered by the opening of the vehicle doors.

Written scripts (in English and Spanish) for the initially required announcement messages will be supplied by the City for recording and implementation by the Contractor. The points at which exterior annunciator messages shall be automatically changed shall be definable by the system administrator.

A method for installing new and revised exterior annunciator data and commands that

does not require direct programming of each annunciator via memory cards and/or other manual methods is required.

Audio levels shall be controllable by the vehicle operator within a usable audio range. The Operator shall have the capability of manually selecting from a menu of predefined messages for announcement to boarding passengers that will overriding an automatic audio announcements; however, operators shall not be able to disable the initiation of automatic external announcements. The override shall be reported as an event. The system shall be capable of disabling external announcements during certain periods of the day or night. The hours for the initiation of external announcements shall be a system settable parameter for the entire SCT fleet and does not require direct manual programming of each annunciator.

2.8 Non-Revenue Vehicle Functions

The TIN shall provide non-revenue vehicle functions as specified in the following sections. TIN-equipped non-revenue vehicles shall be capable of providing all required functions while operating anywhere within City of Santa Clarita Transit defined service area and without requiring manual reconfiguration of any kind.

2.8.1 Vehicle Operator Support Functions

The TIN shall support voice and data communications with four designated non-revenue vehicles. The base capabilities provided for these designated non-revenue vehicles shall include functions identified for the revenue vehicles for log-on/log-off, data messaging, voice communications and vehicle location reporting.

2.8.2 Mobile Computer Terminal

The Contractor shall configure four (4) rugged laptop PCs for use on Road Supervisor vehicles. The rugged laptop PCs shall provide full personal computer (PC) capability and Microsoft Windows compatibility, and serve as the interface between the road supervisors and the TIN while operating anywhere within Santa Clarita Transit defined service area. The MCTs shall be based on a rugged PC laptop and shall include common office application capabilities, such as word processing and spreadsheet, plus selected TIN workstation user functions in support of field supervision activities. At a minimum, the MCTs shall support the following TIN workstation user functions:

- Display of current service schedules including paratransit manifests
- Display of current service status, including events and service performance data
- Incident Management functions, including opening, entering, updating and closing of incident forms
- Map-based AVL tracking and vehicle status monitoring functions. Data partitioning shall be supported in order to limit the amount of data required for this function.
- Bulk Data Transfer functions whenever the vehicle is in range of an access point.

The MCTs shall be securely mounted on rigid Contractor-provided support brackets that are customized by the Contractor as needed for each type and variation of vehicle. The MCTs shall be locked into the Contractor-provided support brackets with a key lock system. This key lock system shall permit quick removal of the MCT. Each MCT shall be mounted and positioned within convenient reach of the vehicle operator's seated position and where the MCT display and keyboard can be easily read by the vehicle operator. The MCT and associated mounting and peripheral equipment shall be safely located outside of the vehicle's airbag deployment zones. the City and the Contractor shall jointly decide the placement and mounting of MCTs for each type of vehicle.

In addition to meeting the requirements above, the MCTs shall be configured in accordance with commercially available laptop computer technology in wide use at the time of purchase. Proposers shalls provide hardware and software specifications for the proposed MCT as part of

their proposals.

To support the Bulk Data Transfer function described in Section 2, all MCTs shall also be equipped to utilize the two-way bulk data transfer facility.

The City will be responsible for purchasing the laptop units which meet the RFP and Contractor specifications and provide said units to the Contractor for set-up, configuration, installation. The units provides by the City shall be equipped with Windows XP Professional and the Microsoft Office suite. Any and all additional software necessary to access, monitor or perform any of the functions outlined in this RFP or proposed by the Contractor must be provided by the successful bidder.

2.9 Information Storage Function

The TIN shall provide an information storage function that collects and stores all operational data for the purpose of later retrieval and analysis. The operational data to be collected and stored by the TIN for later retrieval shall include, but not be limited to, records of all events stored, all voice calls to and from operators and other personnel, all data transmitted from the vehicle fleet including log-on data, communications requests, emergency alarms, mechanical alarms, data messages, schedule and route adherence status data, location data, time point collection data, all data collected from the vehicles via bulk data transfers, all data and messages transmitted to the vehicles, all user-entered data, all user log-ons/log-offs, and all reports generated by the TIN. The stored data shall be time and date tagged and shall contain sufficient information to enable the selective sorting and retrieval of the data based on user-specified selection criteria.

Fixed route schedule and route deviations and changes in a previously reported schedule/route deviation shall also be collected and stored. This schedule/route deviation data shall include a date/time stamp, vehicle ID, block numbers, trip number, direction, vehicle location data, Operator badge number, and the magnitude of the schedule/route deviation.

The most-recent historical data shall be immediately accessible online to any authorized user. The online (short-term) accessible data shall include all historical data from the present to at least the past 36 months. Online data older than the short-term cutoff shall be automatically transferred to long-term archive storage at pre-defined intervals. All historical data, whether online or archived, shall be readily accessible to Information Users and other authorized TIN workstation users.

Support for 23-hour and 25-hour days shall be provided to accommodate changeover to and from daylight saving time. This support shall include the ability to retrieve data for each of the duplicated hours on a 25-hour day and accommodation of the missing or additional hour in daily summaries.

2.10 Information Retrieval Function

The TIN shall provide an information retrieval function that enables authorized TIN workstation users to selectively retrieve historical information. The information retrieval function shall be designed to ensure that a potentially large number of users performing ad-hoc (i.e., unpredictable) retrieval from the stored information will not adversely affect the performance of online functions of the TIN.

The information retrieval function shall provide access security that is configurable by the system administrator. The security features shall enable restriction of data access to view-only and shall permit further access restrictions to the data at both the table and field levels. The security provided for this function shall also support safeguards against unauthorized access to the historical information. Selection criteria shall include text string matches on selected or all portions of fixed-format or free-format entries, or combinations of these criteria. Definition of selection criteria shall support the use of "wild card" and partial match entries. As a minimum, the following specific criteria shall be supported for accessing historical information:

- Vehicle operator badge number
- Block numbers
- Run numbers
- Route numbers
- User ID
- Date/time interval

- Type of data, message, and event
- Service (Fixed-route or paratransit)
- Vehicle ID
- Schedule adherence (exceptions)
- Bus stop IDs
- Four additional specific criteria to be defined later

It shall be possible to combine any number of the above selection criteria with logical operands (and, or) such that all data meeting the combined criteria can be retrieved. Additional selection and sorting criteria for data shall include time tags and ranges, status values, text string matches on selected data fields, and combinations of these criteria. All information shall be retrievable in a fully decoded format. The user shall not be required to interpret coded messages in order to determine the meaning of the retrieved data. Requirements for the Information Retrieval Database are specified in Section 5.

Retrieval of archived information shall not be affected by changes to routes and schedules that have occurred since the date of the archived information.

2.11 TIN Interface Requirements

This section describes interfaces that the TIN shall support in order to provide all required functions of this specification and to support data sharing with certain systems external to Santa Clarita Transit. The Contractor shall be responsible for the design and implementation of all defined interfaces, except for those indicated as "Future". Future interfaces shall be supported without major replacement of initial system components and software.

TIN interfaces shall utilize, to the fullest extent feasible, the capabilities already present in the systems to be interfaced, so as to minimize the need for modifications to those systems. It shall be the responsibility of the Contractor to determine the interface capabilities of the other systems and to promptly report to the City any deficiencies in those interfaces that may prevent full compliance with the functional requirements of this Specification.

The TIN interfaces shall provide a secure means of data exchange, including providing historical data and, if necessary, real-time data such as vehicle position and schedule adherence data on Santa Clarita Transit's fleet. Real-time data shall be provided by the TIN on an as-needed basis, not to exceed a 60-second periodicity of position and schedule adherence data for every vehicle in the fleet.

All required interfaces shall be fully designed and documented by the Contractor to an extent sufficient for third parties to implement and/or modify the external side of the interface. Designs shall employ "open" data access techniques, such as ODBC, for direct access interfaces; and use standard file formats for file-based data exchange interfaces. TIN performance shall not be affected by the level of data transfer activity to and from external systems.

The external system side of the interfaces shall not be considered secure; therefore, a high level of security shall be employed to prevent access by unauthorized users to the real-time TIN network. Specific interface requirements are contained in the following sections.

2.11.1 Network Access to TIN Historical Data

Historical data collected by the TIN is potentially of significant value to many different departments within the City. Those users would typically not interact directly with the TIN, but would instead import TIN data into their own computer systems for further analysis and for integration with other available data. The TIN shall allow extraction of TIN historical data in common machine-readable formats that can be used in other City applications. All such access shall be via a TIN information retrieval function rather than requiring direct access to the TIN LAN.

2.11.2 Paratransit Scheduling System Interface

The TIN Contractor shall be fully responsible for the implementation of both sides of the interface between the TIN and the existing RouteMatch paratransit scheduling system, which shall include supplying all modules and modifications to the RouteMatch system that are required to fully implement the interface. The TIN Contractor shall be fully responsible for the implementation of both sides of the interface between the TIN and the 14 existing Ranger terminals installed in the

paratransit vehicles.

RouteMatch TS™ is a Transit Management System (ATMS) that automates the customer, vehicle, trip request, trip accounting, scheduling, routing, dispatch management and reporting requirements for demand responsive transportation management. It incorporates logistics algorithms and combines these with Geographic Information Systems (GIS) technology and Microsoft SQL database management software.

- RouteMatch TS™ offers the following features; Customer and Eligibility Management Component
- Vehicle Management Component
- Driver Management Component
- Trip Request Management Component
- Schedule and Route Management Component - Scheduling and Routing Optimization
- Manual Scheduling
- Computer Assisted - Show Vehicle Recommendations using the RouteMatch Scheduling Engine (RSE)
- Fully automated, computer-assisted, and manual scheduling and routing
- Geographic Information Systems (GIS): based scheduling and routing utilizing GIS street network for vehicle scheduling, routing, automated vehicle tracking, and display.
- Transportation management tools that include customer registration, trip requests, scheduling, routing, billing, trip verification, reporting, and database maintenance.

RouteMatch TS™ includes the following base Components:

- Fully Automated (Batch) - Schedule Optimization using the RouteMatch Scheduling Engine (RSE)

Graphic 2-1; RouteMatch Software Graphical User Interface
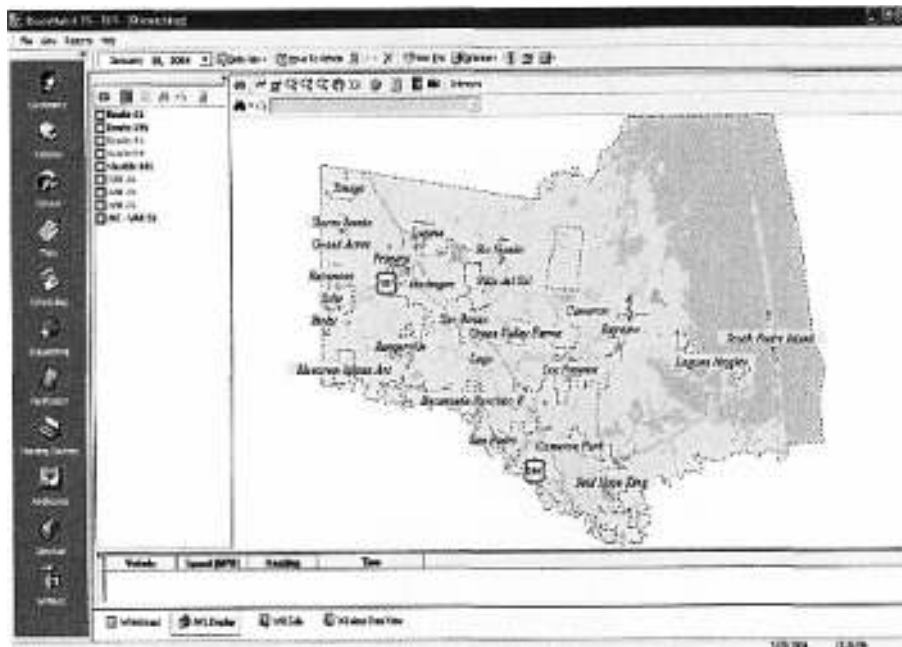
The RouteMatch system also incorporates mobile data and automatic vehicle location (AVL) systems using technology developed and provided by Mentor Engineering and Verizon's wireless data network. The diagram below provides an overview of the RouteMatch/Mentor architecture. SCT currently has RouteMatch v3.017 but will be moving towards upgrading to v 3.108.
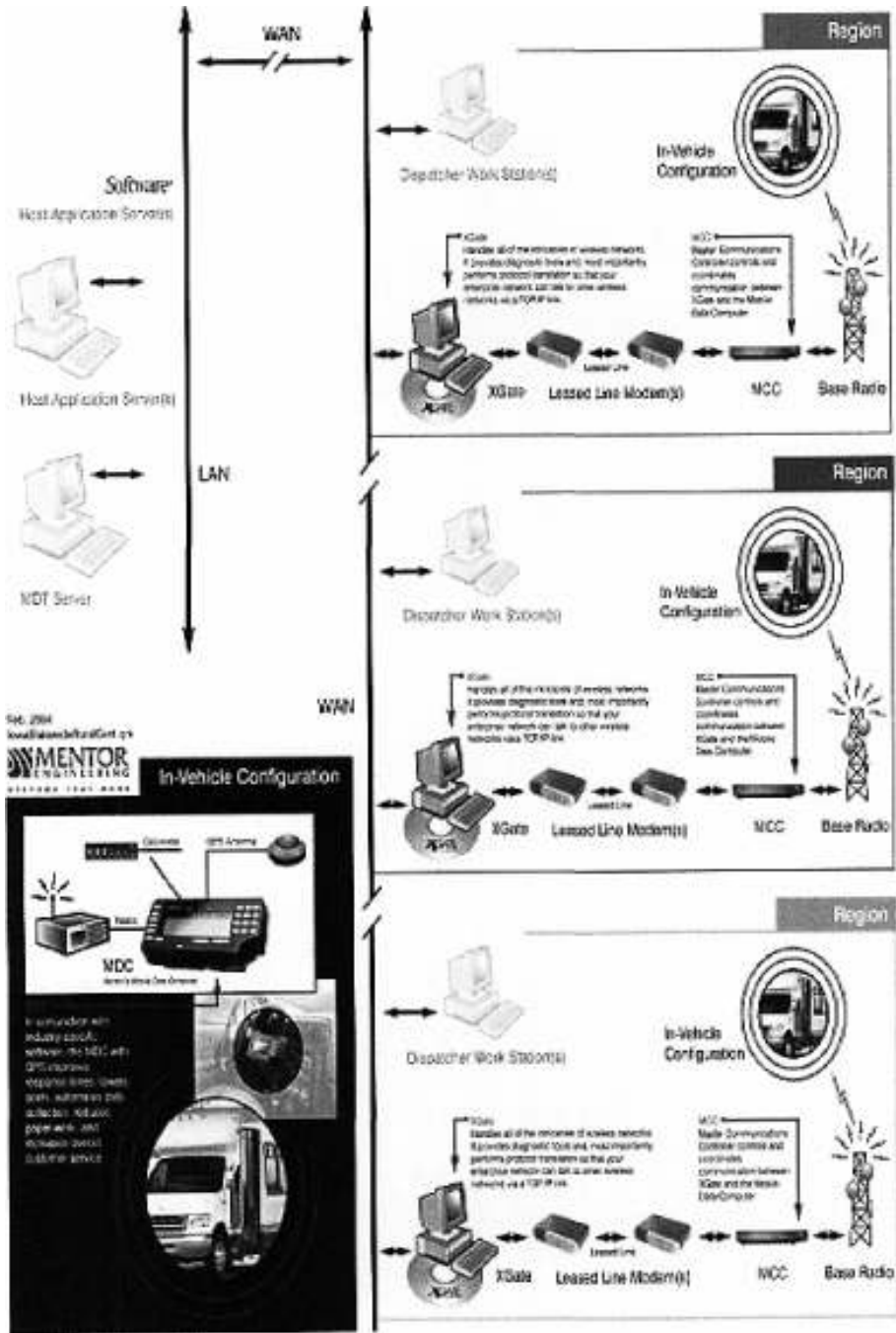
Ranger Technical Specs

Model # 7-RNGR-0110000-46
- 400 MHz Intel© XScale™ processor running RouteMatch V03R06 software
- Windows CE.net 4.2
- Vibration per MIL STD 81OE Method 514.4 Cat 1
- Integrated taximeter per E W 5 0148
- Size: 8.3"x5.5" x 1.6" (21 Omm x 140mm x 4Qmrrl
- 64 MB SDRAM
- 64 M8 FLASH
- 6.4" VGA TFT backlit color display
- Touchscreen
- Built-in smart card reader
- Microphone, stereo speakers, audio out
- Type II compact flash socket
- USB ports (1 host, 1 device)

If modifications to the RouteMatch software are required, all such modifications shall fully comply with the RouteMatch warranty and maintenance contract terms. The Contractor shall not require the City's involvement for coordination and management of any agreement between the TIN Contractor and RouteMatch. TIN proposals shall include all costs for the necessary support activities, modules and modifications necessary to implement this interface.

The TIN shall fully support and enable online manifest and real-time dispatching features of the City's RouteMatch system. To this end, the TIN shall include an interface to RouteMatch that provides all necessary wide-area wireless data communications support and vehicle-side user interface capabilities that are required by the Paratransit Scheduling System in order to enable these features. The TIN interface to RouteMatch shall automatically recover and re-synchronize all data exchanges following restoration from system and communications failures. The TIN shall incorporate data received from RouteMatch and provide an integrated display of RouteMatch and TIN data, including a map that displays both paratransit vehicle and fixed route vehicle locations. TIN shall display emergency notifications from RouteMatch and shall send and receive messages from vehicles equipped with the RouteMatch system.

Support for online manifests shall include the transfer of manifest data to assigned vehicles and operators, including customer information, pick-up and drop-off locations, times and other information as defined in Appendix J. Since manifests are created daily and are updated frequently, the daily and real-time exchange of data between the TIN and the RouteMatch system shall not require any form of manual intervention.

Interface support for same-day reservations and cancellations shall also be provided. All updates to the current day's paratransit routes in the scheduling system shall be reflected in the corresponding manifest data in the vehicles within one minute.

The interface shall support all RouteMatch real-time dispatching features through the real-time reporting of all status events including drop-offs, pick-ups, no-shows, breaks, and cancellations. All status events shall be delivered to Paratransit Scheduling System and accessible to the paratransit dispatchers within two minutes of their entry by a vehicle operator from the vehicle.

If such an interface is not possible or cost effective, the contractor must specify detail of their proposed solution to meet the City's paratransit scheduling and management needs. The Contractor must also provide details on how the proposed alternative would interface with the proposed TIN system.

2.11.3 Fixed-Route Scheduling System Interface
The TIN shall interface with the proposed fixed-route scheduling system in order to obtain transit service data that is required to support TIN functions. The fixed-route scheduling system will be located at the City's Transit Maintenance Facility but should also include a secured interface for access from another physical location should the need arise.

The TIN shall be capable of automatically converting, reformatting, and filtering data acquired from the scheduling system as is necessary to support TIN functions. Operation of the scheduling

system interface shall not impact other functions of the TIN and shall not require the TIN to be shut down or disabled in any way. The TIN shall not require manual manipulation of acquired scheduling system data in order for it to be usable by the TIN. Manual entry and maintenance of transit service data within the TIN shall be supported, but shall not be required for proper TIN operation.

Proposers shall clearly identify the fixed-route scheduling systems they have interfaced with and additions or modifications to the scheduling system data that were required to support the scheduling system interface.

If the TIN design will require modification to the default scheduling system interface then the Contractor shall be responsible for supplying all such modifications. All Contractor modifications to the scheduling system interface shall fully comply with the scheduling system vendor's warranty and maintenance contract terms. The Contractor shall provide the code and or interface language used to accomplish the required interface with the understanding that the City could/would modify this interface should a future need arise. The Contractor shall not require City involvement for coordination and management of any agreement between the TIN Contractor and the scheduling system vendor concerning the scheduling system interfaces.

The delivered TIN scheduling system interface shall support the transfer of data for the anticipated ultimate capacities, as defined elsewhere in this Specification. Further details concerning the interface to the proposed scheduling system are described in the sections that follow.

2.11.3.1 Geographic Data

The TIN shall be able to acquire from the scheduling system (see Section 4 for details), or another City-designated system, any and all available geographic data that is required to support the proposed TIN implementation, including the base map that may be used by the scheduling system. Geographic data available to the TIN from the fixed-route scheduling system includes location and shape data for routes, patterns, stops, time points, sales outlets, transit centers, and major transfer points. Updates to the scheduling system geographic data will occur and shall be supported by the TIN on an as-required basis.

2.11.3.2 Booking Data

The TIN shall acquire from the scheduling system any and all available booking data that is required to support the proposed TIN implementation. Booking data available to the TIN from the scheduling system includes attribute data on route patterns, stops, time points, blocks, runs, trips and operator data. The TIN shall support at least two booking versions, one current and one future, so that the loading of a new booking for a future date does not interrupt current TIN operations. The TIN shall support updates to its booking data via this interface on an as-required basis.

2.11.3.3 Daily Schedule Data

The TIN shall acquire daily schedule data from the fixed-route scheduling system Operator dispatch module in order to update the base booking data for a specific future service day with all recent changes. Changes of this nature will typically include changes to trips to handle school closures and early-outs, though changes to runs and blocks may also occur.

Daily schedule data that is available to the TIN from the fixed-route scheduling system Operator dispatch module shall include attributes on blocks, runs, trips, and operators for specific service days. The TIN offering shall support this type of interface and shall permit any number of updates to an TIN-resident service day schedule via this interface up to within one hour prior to the start of the service day. These update operations shall not interrupt or affect other TIN functions.

2.11.4 Traveler Information System

The TIN shall be capable of supporting the transfer of data to a traveler information system. The traveler information system shall support the following features but not be limited to:

- Static fixed-route schedule information
- Estimated time of arrival information based on a query for such information from the traveler information system.
- Bus route information for a specific Santa Clarita Transit route, or a series of interconnecting routes in response to an traveler information system query for this information. Such information may be used in support of an external, third party Trip Planning system.
- Transfer of predicted arrival information to specific wayside signage based on sign location and route(s) served.
- Broadcast of system map and vehicle location information to large "terminal" style signs, including promotional information and "how-to" spots.
- Ability to make this information available via the web with a user friendly interface.
- Ability to broadcast arrival information to PDA's and cell phones.

Proposers shall describe their approach to supporting the requirements identified above, and provide descriptions of the functions and capabilities of the proposed traveler information system. Proposers shall also indicate whether any prior traveler information system support has been implemented according to the National ITS and/or LA County Metro architecture and associated standards. See Section 13 for details relating to display quantities and specifications.

2.11.5 Interface with Interactive Voice Recognition (IVR) software (Option)
The TIN shall include IVR features which allow customers to retrieve the following information over the phone. This information shall include, but is not limited to:
Paratransit
- Scheduled DAR trip information using a confirmation or ID number

- Schedule a trip selecting from frequent departure and arrival destinations

- Cancel a scheduled trip

- Inquire regarding vehicle location and estimated arrival time

Fixed Route
- Predicted arrival time based on route and stop location

- Scheduled stop information based on route and stop location

- Obtain information on detours and stop closures based on travel dates specific routes, and stop locations.

At any time in the process, the customer shall have the option of being directed to a "live" customer service agent to completed their inquire during published call center hours of operation. The IVR shall include the capability to automatically call a passenger (within a user defined window) prior to the vehicle's arrival time.
Refer to Appendix H for information regarding the City's VoIP phone system.

2.11.6 Interfaces to External Systems
TIN shall be capable of information exchange with external, City and non-City systems including the Universal Fare System(UFS) and Regional Integration of ITS (RIITS) as a Level 2 user. Information regarding RIITS can be obtained from riits.com. Optional interfaces are specified in Section 6 of this document.

SECTION 3
3.0 User Interface
The TIN shall provide a modern, state-of-the-art user interface for supporting all TIN users. The class of TIN user shall determine the required capabilities of the user interface. Regardless of the class of user, however, the user interface shall be convenient to use and be responsive to user requests.

3.1 User Interface General Features
Rapid and reliable selection and performance of user actions is crucial to the successful implementation of the TIN and acceptance by its users. The Contractor's system and user interface shall be user-friendly and allow all user actions to be completed as quickly and conveniently as possible. Any user functions, especially frequently performed functions, requiring user actions that are confusing, awkward, or are too time-consuming will be deemed unacceptable and shall be corrected by the Contractor. To further avoid user confusion, the systems and functions accessible by users shall be integrated to minimize the number and diversity of system interfaces and discrete display devices that are presented to each class of user. The user interface design shall be completed by the PDR and subject to City approval and shall be in conformance with accepted standards.

The following features shall be included in the TIN user interface. Alternatives may be offered and described in the proposal, but shall be functionally equivalent to the features specified.

3.1.1 Windows (Workstations)
The simultaneous display of at least eight windows on each screen of a workstation shall be supported. The windows shall be individually selectable by the user using the keyboard and the cursor positioning device, with the currently selected window being the focus for all user input. The windows shall be re-configurable by the user as follows:

- Quickly displayed in overlapping and tiled configurations at the user's option
- Easily resized to any dimension up to the full dimensions of the screen
- Easily moveable to any position on the screen, including between screens on a multiscreen workstation.
- Quickly reduced to an icon and subsequently restored to the previously configured size and position.

Window configurations (including window locations, window sizes and window content configurations) shall be defined on a per-user basis, and shall be retained between user sessions. For multi screen workstations, initial/default window and dialog positions shall be offset from the desktop center so that it is not necessary to move them in order to see their contents.

3.1.2 Element Highlighting
Highlighting techniques shall direct the user to critical data on displays. The display attributes of blinking, character inversion, line texture, and appended symbols shall be provided. For TIN workstation users, the additional attributes of color and color intensity shall be provided. These attributes shall be used to highlight alarms, data entry locations, and error conditions, and to convey information to the user. The use of element highlighting shall be consistent throughout all displays of the TIN for each class of user.

3.1.3 User Guidance
The TIN shall respond to all user input actions indicating whether the action was accepted, was not accepted, or is pending. For multi-step procedures, the TIN shall provide feedback at each step. Indications such as text messages, color changes and blinking shall provide this feedback. User guidance messages shall be unabbreviated English text and shall not require the use of a reference document for interpretation.

User guidance messages for system errors that occur during normal system use shall not include diagnostic or other complex data or descriptions intended for maintenance personnel. This

diagnostic data should be logged for later retrieval by the system administrator.
Critical actions initiated by the TIN user, such as a deletion, shall be performed only after a warning message and request for confirmation are issued to the initiating user and the confirmation of the intended action is received from the initiating user. Pop-up user guidance messages shall not require the user to select or move them in order to read their contents.

3.1.4 Cursor Position Selection
Multiple methods of rapid and convenient cursor positioning shall be provided, including forward and backward tab keys, a direct cursor-positioning device, and cursor control keys. Tab stops shall be provided on displays at the first character of enterable data fields, at controllable devices, and at all other cursor targets. Cursor targets on displays shall be sufficiently large to permit rapid selection of the target, and shall be sufficiently spaced apart to minimize the possibility of incorrect target selections.
Cursor positioning techniques shall be consistent for all displays for each class of user. In addition to positioning the cursor on a screen, the TIN shall provide a means for continuously moving the cursor between screens on multiple screen workstations via movement of the cursor-positioning device.

3.1.5 Function and Display Selection
Rapid selection of the most commonly required displays and functions shall be available to users at all times using techniques such as menu bars, pop-up menus and tool (function button) bars. TIN users shall be able to initiate the most common functions and display requests at any time by a variety of means, depending on the user's preference. These means shall include the selection of items from menu bars and pop-up menus, use of dedicated function keys, use of cursor-positioning device buttons (if applicable), and keyboard entry.

3.1.6 User Interface Configuration
To the greatest extent possible, reconfiguration of the TIN user interface, such as changes to element highlighting techniques, user messages, and displays, shall not require reprogramming or recompilation of program code.
User-configurable settings and preferences of the user interface shall be retained between user sessions and shall be uniquely defined for each user. Suitable defaults shall be provided for all settings and preferences. A means to restore all settings and preferences to the defaults and a means to store multiple sets of settings and preferences for each user are considered desirable features.

3.1.7 Data Entry
All enterable data fields shall be highlighted. The user shall be able to enter the desired value anywhere within the data entry field. If only a portion of a data value needs to be changed, only that portion of the value shall need to be entered.
The user will initiate data entry by selecting the value to be entered on a display. The value shall be highlighted and the value's identification shall be displayed. An authorization feature shall determine if proper authorization exists for the user requesting data entry. The TIN shall also include standard field validation software to detect and report invalid user entries.
Full-page data entry shall be provided that allows users to make multiple data entries before requesting that the data be entered into the database. All valid entries shall be accepted unless an TIN function requires all entries be correct. In that case, the user shall not be required to re-enter valid entries.
The amount of data users are required to enter shall be minimized. The TIN shall insert any data that is already known (e.g., date, time, user identification, vehicle identification, vehicle operator) and provide default values where appropriate. When data entry of a field is limited to a known set of valid responses, the list of valid responses shall be presented to the user in the form of a scrollable list. The User shall be able to select the desired entry from this list. Users shall be able to override any TIN generated or default values.
The user shall be able to end data entry at any time by selecting "cancel" or requesting a different display or window. These actions shall cause the process to be terminated and the data value

shall remain unchanged.

3.1.8 Context-Sensitive Help Facility
The Contractor shall provide a comprehensive, context-sensitive help facility to aid users in interpreting displayed information and to guide users, at their option, through all the control, data entry, selection, and other user action processes supported by the TIN. The help information displayed to users shall provide assistance and information pertaining to the particular actions being performed by the user at the time help was requested.

3.2 TIN Workstation User Displays
This section describes specific display features and types of displays to be provided for TIN workstation users. The Contractor shall provide all displays defined below as well as all displays required by the Contractor's design approach for meeting the functional requirements of this Specification. In addition, the Contractor shall provide all standard displays that are normally included with its base CAD/AVL system product.
Display type requirements defined in the following sections identify specific display designs and features that are either desired or required, as indicated, to accomplish some of the TIN functional requirements. These specific display type requirements are not intended to define the set of all displays and display features necessary to meet the full functional requirements of this Specification. The Contractor is responsible for providing all displays necessary to meet the full TIN functional requirements.
Samples of standard displays included in the Proposer's standard system offering shall be included in the proposal.

3.2.1 General Display Features
Each display shall have the features described below. Alternative approaches may be offered and described in the proposal, provided the functional requirements of the Specification are satisfied.

3.2.1.1 Multi-Screen Displays
Time and date shall be displayed at a fixed location on a screen-basis and not on a display basis. Default locations for task bars, tool bars, menus, pop-up windows and for fixed windows shall be pre-configured by the Contractor so that they are not obstructed by the boundaries between multiple screens.

3.2.1.2 Display Heading
Each display shall include a heading at the top of the display consisting of a title showing the unabbreviated name of the display and the page number for multi-page displays.

3.2.1.3 Display Content
It shall be possible to present any item in the TIN database on a display. Statuses of vehicles, devices, and other dynamic entities shall be displayable using combinations of symbols, colors, descriptions, and blinking.

3.2.1.4 User Guidance Message Area
A means for presenting TIN-generated user guidance messages on a display shall be provided.

3.2.1.5 Display Scrolling
If display content is larger than the display, scroll bars shall be used to enable rapid viewing of all display content. For tabular displays that must be scrolled, the row and column headings of the table shall be stationary so that these headings can be viewed regardless of the scroll position.

3.2.2 Geographical Map Display
A geographical map display shall be provided that supports basic functional requirements for vehicle location status tracking, vehicle and route selection, and other supplied functions that

require the use of a geographical map. This section identifies specific features of the geographical map display that shall be provided with the TIN.

The TIN shall provide specific display interaction capabilities in order to enable TIN workstation users to efficiently interact with geographical maps. The following sections define these required features.

3.2.2.1 Map Views

TIN workstation users shall be able to set up a particular view of the territory on the map display and store it for future recall on the display. The ability to define, store and retrieve up to 30 specific views of portions of the territory shall be supported. Each of the views shall be uniquely identified and rapidly displayable by the TIN workstation user. Each stored view shall include a definition of the area being displayed, scale/zoom level, routes to be displayed, vehicles to be displayed, center point of the display, and other parameters that define what information is displayed and how it is displayed. When a stored view is selected, it shall be displayed as defined in the setup parameters for the particular view. All map functions, controls, and real-time vehicle updates shall be active when these stored views are being displayed.

3.2.2.2 Map Attributes

The displayed map shall be capable of supporting a variety of map attributes that shall include, but not be limited to, all streets, highways, prominent geographical features (e.g., rivers, major bodies of water, mountains), important landmarks (bridges, airports, transit centers, garages, parks, medical facilities, important buildings, etc.), routes, bus stops, timepoints, and transfer points. Workstation users shall have the ability to select the layers to be displayed.

3.2.2.3 Vehicle Overlays

The locations of all AVL-equipped vehicles shall be indicated by special symbols that are overlaid on the geographical map display. The symbols shall be approved by the City and shall be easily modified. Up to ten (10) distinctive vehicle symbols shall be provided that are relative to Santa Clarita Transit and its operation. A vehicle identifier shall be displayed adjacent to, or within each vehicle symbol. These vehicle identifiers shall uniquely identify each vehicle. Revenue vehicles shall be identified by their type (fixed-route, commuter or paratransit), vehicle number, fixed-route block number, paratransit route number, or vehicle operator employee number. The identifier used by the system shall be configurable by the TIN workstation user. Vehicle symbols shall also clearly show the vehicle type, state, and status (see Section 2) using combinations of symbol colors and shapes. When the curser is positioned over the symbol for an extended (minimum three seconds) period of time data relating to that vehicle/ symbol shall appear in text format.

TIN workstation users shall be able to call-up additional information pertaining to a vehicle by selecting the vehicle's symbol on the display. This additional vehicle information shall be displayed in a pop-up window.

When multiple vehicles are located too close together to be displayed without overlapping at the selected zoom level, the TIN shall provide a means for the user to see the individual vehicle identities for the overlapped vehicles.

3.2.2.4 Map Navigation

The following navigation functions and features shall be provided to support TIN workstation users when they are working with geographical maps:

- Rapidly select a specific map area for viewing by using a graphical map overview
- Locate selected vehicle IDs, operator numbers, and block numbers on the map and center the selection on the display
- Locate a selected landmark on the map and center it on the display
- Center the display on any selected point of the currently visible map

- Center the display on a vehicle and continuously track the vehicle on the map
- Locate a selected route on the map and center the display on the route
- Calculate the distance between two selected points on the map and accumulate the distance along the path formed by a series of points.
- Course and fine panning of the display to bring any portion of the map into view.

3.2.2.5 Map Scaling

TIN workstation users shall be able to zoom in and out on the map display to view specific areas of the territory at different levels of detail. The range of display capability shall extend from displaying Santa Clarita Transit's entire service area at an overview level of detail to displaying a small portion of the area in fine detail. Information shall be automatically added/deleted at selected scale (zoom) factors as the view is zoomed in/out, respectively. At least eight (8) distinct zoom levels shall be supported. TIN workstation users shall be able to zoom in to a map level that allows at least 4 vehicles lined-up within a 200-foot distance to be clearly distinguished, without overlap of the vehicle symbols.

The map textual information such as street names, vehicle identities, route names, and landmark names displayed at the various zoom levels shall be clearly readable. Route and street names shall be repeated along lengthy routes and streets.

The system administrator shall be able to specify the scale associated with each zoom level as well as the default attribute information that will appear at each level. The Contractor shall provide an initial configuration that satisfies the above viewing requirements.

3.2.2.6 Map Attribute Filtering

The visibility of various map attributes shall be dependent upon the displayed zoom level in order to avoid unnecessary cluttering of the display. The TIN shall enable a TIN workstation user to configure the map display as desired by selecting specific attributes for display. All user configuration options for the map shall be unique to each TIN workstation user and shall be retained for each user between sessions.

3.2.2.7 Vehicle Overlay Filtering

An TIN workstation user shall be able to restrict the display of AVL-equipped vehicles on the geographical map to any combination of the following criteria:
- All vehicles of a service (e.g., fixed-route and/or Paratransit)
- All revenue vehicles on all routes
- Revenue vehicles on selected routes
- All non-revenue vehicles
- All supervisory vehicles
- All maintenance vehicles
- All vehicles
- A single vehicle.

The mechanism for defining the routes (and the associated vehicles) that are displayed shall be convenient and shall not be solely dependent on the manual entry or individual selection of the specific route numbers to be displayed. Other mechanisms, such as allowing TIN workstation users to conveniently select one or more pre-defined groups of routes for display shall be supported.

Users shall be able to set filtering options that enable them to view vehicles outside of their assigned data partition(s). For example, paratransit dispatchers shall be able to view the location of fixed route buses for planning transfers. Vehicles reporting an emergency alarm shall always be visible on the geographical map display regardless of the user's current filtering criteria and data partition assignments.

3.2.3 Event Queue Display
A tabular display shall be provided that addresses event handling functional requirements of the TIN workstation user. The types of events supported by this display shall be as defined in Section 2.4.6.

Events shall be partitioned, as specified in Section 2.4.6, so that each user sees only those events that pertain to his/her area(s) of responsibility. The following additional features of the event queue display shall be provided with the TIN:

Event Ordering - Events in the event queue display shall be ordered by decreasing priority, and ordered chronologically (oldest first) within each priority as the default mode of presentation. The TIN shall enable users to re-order the events in the event queue display by sorting on any displayed field. A means shall be provided to quickly return the display to the default ordering defined above.

Scrolling - Scrolling of the event queue display shall be supported when there are more events in the queue than can be displayed at once. In a typical window configuration, the TIN shall be able to concurrently display at least 20 events in the event queue display.

Priority - Color coding and spacing shall be used to distinguish events of different priority levels. The system administrator shall be able to define the color to be used for each priority level. Events that are unanswered (i.e., those which a TIN workstation user has not yet responded) shall be clearly distinguishable from all other events.

Display Fields - The fields (table columns) to be presented for each event shall include the type of event, time of occurrence, route number, vehicle ID, vehicle operator name and employee number, a text description of the event, event status (e.g., unanswered) and any important event attributes (e.g., schedule deviation amount). The system administrator shall be able to define the order in which the event queue fields are displayed. The time of occurrence shall be displayed in a 24-hour format showing hours, minutes and seconds. Clear, descriptive text and/or abbreviations shall be used for identifying each event type. The full set of attributes for an event shall be viewable by selecting the event.

Text Descriptions - The text description shall uniquely describe each type of event such as emergency alarm, request to talk, schedule and route deviations and text for canned data messages received from vehicles. In the case of lengthy text messages, at least the first 20 characters of each data message shall be displayed in the event queue. For messages longer than 20 characters, the full text of the message shall be displayed to the user when the particular event is selected. Numeric and cryptic alphabetic codes shall not be used for the event descriptions.

Emergency Alarms - All emergency alarm events shall be audibly annunciated with a unique and distinctive tone when an emergency alarm is first displayed in the event queue. The audible annunciation of an emergency alarm shall continue until a TIN workstation user selects the emergency alarm event or otherwise acknowledges the alarm.

Audible Annunciation - An audible tone, different from the emergency alarm tone, shall sound if a user's event queue contains no unanswered events and a new event (other than an emergency alarm) is being added to the user's event queue. This audible tone shall consist of a single short beep. At all other times, the entry of an event into a user's event queue shall not be audibly annunciated.

Event Selection - The event queue display shall provide for the convenient selection of events in the queue and for initiating follow-up actions pertaining to the selected event as described in Section 2.4.6. Once an event is selected, all information pertaining to that event and other pertinent data including the vehicle ID, vehicle operator name, schedule adherence status, complete text of the message, and fields for initiating follow-up actions shall be displayed. The

ability to select multiple contiguous and non-contiguous events in the display shall be provided to support rapid event removal.

3.2.4 Fixed-Route Service Performance Display

A tabular display, or integrated set of displays, shall be provided that enables TIN workstation users to quickly monitor the current fixed-route service performance. In addition to basic identifying information, such as vehicle IDs, employee numbers, route numbers, block numbers, etc., the following specific types of information shall be presented:

- Off-route status – for each vehicle off route, the distance off route, the time that the vehicle went off route and the next scheduled timepoint shall be displayed
- Off-schedule status – for each vehicle that is off schedule, the schedule deviation and the next scheduled timepoint shall be displayed
- Late pull-outs – for each block with a late pull-out, the scheduled pull-out time, and the associated vehicle status, if logged in, shall be displayed
- Late pull-ins – for each block that is late pulling in, the scheduled pull-in time, and the associated vehicle status, if logged in, shall be displayed.

Status information shall be organized such that the most critical service issues are displayed first followed by less critical service issues and finally, if included in the display, all service that is within normal operating thresholds.

A graphical headway display shall be provided that enables TIN workstation users to quickly monitor the location of fixed route vehicles relative to stops on the route and to other vehicles. The graphical headway shall display the vehicle ID, schedule adherence, and indicate the location of the vehicle relative to the stops on the route. The graphical headway shall be updated immediately when new vehicle location is received.

3.2.5 Reference Information Displays

The TIN shall provide reference information displays that present transit operations information routinely needed by the Dispatchers. The information displayed to TIN workstation users shall be images or copies (e.g., Acrobat PDF) of existing Santa Clarita Transit data obtained from various sources.

Using this data as-is, the Contractor shall develop the TIN import procedures and software applications necessary to support these displays. The City will not repackage, rework, or otherwise change its reference data to suit the needs of the Contractor's TIN input requirements. The TIN shall provide the capability for users to create reference information displays as the City uses the system and identifies other needs. The types of displays to be initially provided shall include:

- Paddle Displays – These displays shall present copies of the operator's schedules (paddles).
- Headway Displays – These displays shall present a list of buses (by block numbers) that service a particular route including time points along the route, the pull out/pull in times, and the departure times of each bus.
- Destination Sign Displays – These displays shall present destination sign messages and their corresponding codes.
- Route Displays – These displays shall provide detailed descriptions, including any notes, for each route.
- Radio Assignments Display – This display shall list the fallback mode radio channel assignments for each vehicle.
- Vehicle Listing Display – This display shall show a listing of all revenue and non-revenue vehicles. The information presented in this display shall include the vehicle number, type, manufacturer, license plate number, registration information, MDT serial number and radio serial number.

The finalization of the information to be included in this display shall be decided on by the City as part of the design criteria.

3.3 Reports

This section describes specific reports that shall be produced by the TIN. The Contractor shall provide all reports defined below as well as all reports required by the Contractor's design approach for meeting the functional requirements of this specification. In addition, the Contractor shall provide all standard reports that are normally included with its base CAD/AVL system product.

Report requirements defined in the following sections identify specific report designs and features that are either desired or required, as indicated, to accomplish some of the TIN functional requirements. These specific report requirements are not intended to define the set of all reports and reporting features necessary to meet the full functional requirements of this Specification. The Contractor is responsible for providing all reports necessary to meet the full TIN functional requirements.

The City intends to utilize the Contractor's standard reports, as proposed, to the greatest extent possible. In some cases, the Contractor shall be required to provide the standard report, adapt their existing report, or develop a new report. In addition to the Contractor's standard reports and the specific reports listed below, the Contractor shall provide fifteen (15) additional reports customized for the City that are similar in complexity to the Dispatch Activity Report. The exact nature and content of these additional reports will be defined by the City after contract award. Samples of the standard reports included in the Proposer's standard system offering shall be included in the proposal.

3.3.1 General Report Features

3.3.1.1 Report Access and Distribution

Authorized workstation users shall be able to display and print any and all reports supported by the TIN. The TIN shall permit output manipulations such as changing the paper size, utilizing different printers, fit-to-page option, and reorienting the printed pages from landscape to portrait. All reports shall be viewable on-demand via displays, and shall be printable both on-demand by authorized users and automatically at scheduled times and intervals. All report content shall be restricted to the assigned data partition(s) of the requesting user.

The ability to export reports as comma or tab-delimited or PDF files and automatically generate and distribute reports electronically via email is considered a highly desirable feature. Proposers shall indicate the recommended printer capabilities (e.g., paper size) that are required to properly print all supplied reports.

3.3.1.2 Report Headings and Footers

All reports shall include headings and footers on each page that include at least the report title, page number and the date and time that the report was generated.

3.3.1.3 Report Parameters

All supplied reports shall support user-specified parameters that constrain the report content to specific date/time periods, service, vehicle types, etc. as appropriate to the purpose of the report. All reports providing summary data shall be available over a time period that represents a service day or user defined time period. Report parameters shall have appropriate pre-configured defaults that are used to generate the report if the user does not specify those parameters. All parameters, both user-specified and default, shall be printed with the report on a report cover page, or equivalent, that lists all parameter settings that were used to generate the report.

All reports that include threshold parameters and status conditions based on threshold parameters (e.g., a report of schedule deviations, where the threshold is the definition of how many minutes behind schedule is defined as a "late" status), shall utilize the threshold value that was in effect at the time the data was collected and not the current threshold value.

3.3.1.4 Report Content

It shall be possible to present any data in the database on a report as well as any data stored via the TIN Database server. All reports shall be generated from the data stored in the information server unless data required by the report is resident only in the on-line database and has not yet been replicated to the information server.

Information displayed in columns shall have headers. If a printed column length exceeds one page, successive pages shall have the column headers repeated. For displayed reports, columns and row headings shall remain locked and not scroll outside of the viewable window area.

The Contractor shall be responsible for assuring that each report contains the correct information and nomenclature regardless of the nomenclature used in their existing standard reports.

Unless otherwise noted, or instructed by the City to keep existing wording, the City's nomenclature shall be correctly used in all reports. City approval on the content and formatting of all report types shall be a requirement for the completion of the Final design review payment milestone.

3.3.2 Incident Report Summary

The TIN shall automatically produce a daily listing of all incident reports that were open during the service day. This report shall contain copies of all the incident reports, complete with all the data entered, sorted by service, incident type, and by time. The reporting period for the report shall begin when the previous service day's incident report summary ended.

Once an incident report is generated for a service day, it shall automatically be archived via the information storage function and printed on the designated printers. All open incident reports shall be carried over to the next service day's reporting period.

The Incident Report Summary shall summarize the number of incident reports listed in the log. The following totals shall be provided:

- Number of open incident reports carried over from previous days, by service and type of incident

- Number of new incident reports opened, by service and type of incident

- Total number of incident reports, by service, type, and combined

- Number of incident reports that remain open, by service, type of incident, and combined.

Authorized users shall also be able to request a printout of all or selected incident reports on demand. These on-demand requests shall not affect the automatic incident summary reporting processing. For example, on-demand requests shall not cause the automatic incident report summary time period to be reset and shall not archive the on-demand report data. Authorized users shall be able to select and print incident reports within a user-specified time period, by type, by responsible Dispatcher, by status (open/closed), and by incident report numbers.

3.3.3 Passenger and Accident Incident Report

The TIN shall automatically produce daily listings of all incidents concerning passengers and accidents that were open during the service day. The incidents shall be listed according to incident number and shall contain the date of the incident, service, incident type, incident number, block numbers, route number, vehicle number, location of incident, time of incident, direction of incident (compass), description of incident, vehicle operator's name and employee number, incident opened and closed by (name of Dispatcher), and other pertinent summary data.

Once a Passenger and Accident Incident Report is generated for a service day, it shall automatically be archived via the historical storage function and printed on the designated printers. All open incident reports shall be carried over to the next service day's reporting period.

3.3.4 Dispatch Activity Report
The TIN shall produce daily, weekly, and monthly reports of dispatch activity. The daily report shall consist of a log of all the events that were displayed in the event queue and all calls and data transmissions initiated by TIN workstation users along with a summary of the day's activity according to the statistics listed below:

- Number of requests to talk
- Number of priority requests to talk
- Number of emergency alarms
- Number of Dispatcher-initiated calls
- Number of incidents generated
- Number of radio transmissions by talk group or channel (excluding data channel)
- Radio talk group or channel usage, expressed in total seconds per hour or percentage used.

The daily reports shall provide the above statistics broken down on an hourly basis per Dispatcher, along with daily totals. The weekly reports shall provide the Dispatcher and type of service breakdowns on a daily and weekly total basis. The monthly report shall provide daily, weekly, and monthly totals for each of the above statistics and categories by service type.

3.3.5 Schedule Deviation Reports (Fixed-Route)
The TIN shall produce reports showing daily, weekly, and monthly schedule deviation. These reports shall summarize the schedule deviations that occurred during the time periods covered by the reports. The following statistics shall be produced for the fixed-route fleet, for each bus route, and for each vehicle operator:

- Total number of blocks
- Total number of early blocks (i.e., blocks that were early departing from any time point)
- Percent early blocks
- Average number of minutes early
- Total number of late blocks (i.e., blocks that were late departing from any time point by more than a user-specified threshold)
- Percent late blocks
- Average number of minutes late

The report output shall be configurable to allow the user to filter certain types of specific schedule deviations. The types of deviations that can be filtered shall include early times on selected express routes and at selected stops, where early times are acceptable.
The daily reports shall provide the above statistics broken down on an hourly basis along with daily totals. The weekly reports shall provide the above statistics broken down on a daily basis along with weekly totals. The monthly report shall provide the above statistics broken down on a daily basis along with weekly and monthly totals.

3.3.6 APC Reports
The TIN shall produce reports that aid in the generation of National Transit Database (NTD) reports including but not limited to boardings by route and stops.Line, Passenger Miles, Passenger Hour

3.3.7 Mileage Reports
The TIN shall produce mileage reports including reports Revenue and Non Revenue Mileage, Total Mileage

3.3.8 Additional Reports

The TIN shall produce the following additional reports: Missed Pull-Out, Missed Trip, Operator Activity Log, Schedule Adherence by Timepoint, Vehicle activity Log, Line/Run Status.

3.4 User Interface Performance Requirements

The following sections specify the performance required of the user interface. Performance requirements are specified separately for TIN workstation users and for TIN MDT users. Averaged or other statistically processed response and update times will not be accepted as a measure of contract conformance.

3.4.1 TIN User Interface Performance Requirements

3.4.1.1 Display Response Time

When a new display is requested by the user, the new display complete with data values shall appear on the workstation screen within two seconds under the peak load conditions. For this requirement, display response time is defined as the response time to display current database data on a display.

The City realizes that a complex geographical map display may require a longer initial response time than other system displays. Due to the complex nature of geographical map displays, an additional three seconds shall be allowed for a new geographical map display call-up for each of the response times listed in the paragraph above.

When data entry is performed on a display, the data entry operation shall be completed and the newly entered value(s) displayed at local workstations within two seconds under the peak load conditions.

3.4.1.2 Display Update Rate

Once a display containing dynamic data is active, the display shall be updated to ensure a data latency of no more than two seconds under peak load conditions. To achieve this, displays may be updated on a periodic basis of at least every two seconds or displays can be updated as changes to the data occur. Data on displays that are being viewed by a user shall be updated regardless of whether or not the window containing the display is the active window. From the start of visible update activity, an update shall be completed within one second.

3.4.1.3 Geographical Map Display Zooming Response Times

A user request to display an active Geographical Map Display at a different scale factor shall be completed within three seconds under peak load conditions.

3.4.1.4 Report Response Time

Requests for reports shall be acknowledged immediately with an indication that the report is being processed. Printing of a report shall begin within one minute of its scheduled time or on-demand request time, regardless of the level of TIN activity.

3.4.2 TIN MDT User Interface Performance Requirements

3.4.2.1 Vehicle Operator On-Board Actions

All vehicle operator actions performed via the mobile data terminal that are processed entirely by the TIN on-board equipment shall be completed in one second under peak load conditions.

3.4.2.2 Sent Data Messages

When the TIN mobile data terminal user enters a request to send an event (data message), the TIN mobile data terminal shall provide immediate feedback to the user that

the request has been accepted and is being processed, and shall notify the user when the message has been sent. The message shall be available at the fixed end within the maximum event delay times specified in Section 2.4.6.1.

3.4.2.3 Received Data Messages

When a data message is received by the TIN on-board equipment, the TIN mobile data terminal user shall be notified and the message shall be available for display on the mobile data terminal within one second after it is received under the peak load conditions.

SECTION 4
4.0 Scheduling Software

4.1 Capabilities/Functions – General Requirements

The City understands that there are numerous vendors of software for scheduling and runcutting and does not want to discourage vendors that can provide a convenient and efficient way of meeting the City's needs under this RFP. Contractors who cannot meet all of the requirements detailed in this RFP are encouraged to respond to the RFP for consideration and to note, in their proposal where their system cannot meet the requirements in the way described and any steps that can be taken to meet the City's needs. This section of the proposal must be labeled "Exceptions to City Request Features and Functions".

4.1.1 The Principles of the Desired System

Ease of Operation – The system shall be easily operated by "non-software" professionals (i.e.; dispatchers, supervisors, schedulers, planners). The materials should be intuitive and organized in an easy to understand, logically organized manner. User defined properties are desirable and a comprehensive range of reports should be available to users along with a easy to use method for generating new types of reports.

Integration – The system shall be built on an open and scalable architecture to accommodate the integration of related applications in the future. These include, human resource systems and accounting/payroll systems.

In addition, the scheduling system should be fully integrated with all other features requested in this RFP including the existing paratransit scheduling and dispatching (RouteMatch) system.

Comprehensive – The system shall provide the City with a comprehensive system enabling the staff to create and define routes, establish timetables, conduct automated blocking/vehicle assignment and complete, with ease and accuracy, runcutting (operator assignment) in an efficient and cost effective fashion. The system shall also provide the City with flexibility in extracting and reporting information from the system in order to look for more efficient ways for the transit system to operate.

4.1.2 Mapping

The system shall be fully integrated with the AVL Map and overlay capabilities outlined in Section 2.5.2 of this RFP. This GIS information/data shall be available to users operating any part of the system. The user shall not have to exit the scheduling application to view map information/data. In addition, the system and mapping components shall:

- Be a seamless entity within the software.
- Be available from all modules and components of the system.
- Allow point and click on images to get information.
- Allow map display and/or map layers to be turned on or off via an icon or menu option.
- Provide a variety of methods to calculate distance including: Straight line, Triangulation, Triangulation with barrier processing and Street routing (preferred method).
- Allow map to be updated easily and efficiently and provide the ability to add new streets and addresses.

- Allow for the display of the ADA service area and accommodate multiple service areas.
- Automatically create ADA service area boundaries from existing fixed routes trace data.
- Allow for and recognize ADA polygons by time of day.
- Provide geocoding capabilities for a variety of locations and bus stops.
- Provide for geocoding of point address locations.
- Allow geocoding by mouse if necessary.
- Provide a comprehensive search, which displays a list of close matches when an exact street or point of interest cannot be found.
- Allow for the integrated editing and easy replacement of map files.
- Be able to read bus stop information from a fixed route bus stop file and display them as distinctive icons on the map.
- Enable the City to assign latitudinal and longitudinal values to map features.
- Be able to accept and display bus stop and other geographic features collected in through field survey or other data collection methods.

The Contractor is required to collect bus stop information including geographic locations and attribute information that can be displayed and maintained through the scheduling system. Proposers should detail the process for integrating field-collected bus stop location and attribute information into the scheduling system and to cite relevant experience in this area. Attribute information pertaining to each bus stop should, at a minimum, include:

1. Street names and intersecting street information
2. Addresses
3. Description of field amenities (shelter, bench, etc.)
4. Proximity to traffic signals/cross walks
5. Type of signage
6. Coordinates (latitude and longitude in industry standard formats including but not limited to WGS 84)
7. Distance information to upstream and downstream stops
8. Municipality
9. ADA Accessibility information
10. Time point designation
11. Unique identifiers (stop number)
12. Location description (Near or far side, mid-block)
13. Bus schedule at stop
14. All routes that service the stop
15. Additional user defined fields

In addition, the Contractor shall also provide utility tool to allow coordinate projection and future importation of other City-developed and maintained GIS data layers onto the TIN system. Such utility tool shall allow data projection from the City's standard coordinate system of State Plane NAD83 California Zone 5 into the TIN-utilized coordinate system; and importation and proper overlays to the TIN AVL mapping application base layer.

4.1.3 Route Definition and Bus Stop Inventory
The scheduling system software proposed shall enable the City to easily define and develop routes and schedules, automatically or manually (or a combination of both methods) conduct blocking (vehicle assignment) and runcutting (driver assignment). It shall provide the City with the capability to conduct "*what if*" scenarios in the development of driver assignments and calculate the cost for any runcutting scenario based on the details of the City's current labor agreement. The software, at a minimum, shall provide the City with an easy to use method for creating routes and managing bus stop location and attribute information. It shall have "point and click" tools for route definition and also have the ability to geocode attribute information. The ability to analyze routes and route patterns and provide distances between time points, bus stops and waypoints shall be included. The system shall have the ability to display route information in tabular form or

on a route map that can be modified interactively. Proposers should provide details regarding all of the functional capabilities regarding route definition and the development and maintenance of a bus stop inventory.

4.1.4 Schedule Development/Trip Building/Creating Timetables
Based on the routes that were created during route definition, the system shall allow the City to develop and modify running times, develop trips and conduct other scheduling tasks. This element of the software shall provide a comprehensive set of tools enabling the City to automatically generate trips and schedules based on run times that are automatically generated or manually input. Run times shall be adjustable by time of day to account for varying traffic conditions. The system shall allow for the accommodation of layover time and deadhead times. In addition, the scheduling software shall support both "route objects" and deviated fixed route scheduling. Proposers shall provide details regarding all of the functional capabilities regarding trip building and schedule development.

4.1.5 Blocking
Using the relevant information generated in the route definition and schedule development tasks, the system shall provide the City with an automated method for combining, or "hooking", trips into blocks. Based on user-defined parameters, the system shall be able to automatically (and/or manually) and efficiently block trips to minimize the number of vehicles and hours of service required to meet the City's schedules. It shall allow the City to permit or forbid automatic interlining and help to resolve layover capacity conflicts by routing vehicles to alternate stops. The system shall also permit the scheduler to view blocks in a graphical view and allow for interactive fine-tuning of the computer generated automatic blocking proposed solutions.
Proposers shall discuss the general amount of time it will take their system to complete the entire blocking process for the peak number of vehicles operated by the City along with the minimization of the number of vehicles used during peak operating periods, reducing vehicle miles and time and deadhead miles traveled by vehicles. Proposers shall describe the logic that is used for blocking and runcutting optimization. With regard to the runcutting function, rules-based optimization shall allow the City to minimize overtime hours, the number of operators required and the overall number of runs.

4.1.6 Runcutting
The runcutting element of the system shall provide a complete set of tools to optimize driver assignment. The overall goal of this element of the software system is to provide the City with the lowest cost runcutting (driver assignment) solution while adhering to the current work rules and labor agreement. The system shall take into account work rule parameters and duty characteristics and allow for the performance of automatic and manual development of driver assignments using both tabular and graphical representations. It shall automate the management of relief, travel and non-revenue times. The system shall also offer a comprehensive range of tools allowing the City to analyze the financial and labor contract implications of various runcutting solutions. In addition, the system shall allow for the creation and saving of multiple runcutting scenarios.
Proposers are advised that the City plans on implementing the software system using its current operation for the initialization and calibration of the software. However, once the system is fully operational, the City plans on inputting the data associated with an alternate service design (routes, stops and schedules) to be implemented in the future. The system shall be capable of accommodating multiple service configurations.

4.1.7 Rostering
The rostering element of the systems shall package runs created in the runcutting element of the system and provide the City with the capability to assemble periodic driver assignments that are developed according to the practices of the City. The system shall accommodate five and four day rosters as well as part time rosters and shall manage the costing of rosters.
Among other things, the outcome of the software elements described above shall be reports providing a thorough understanding of the operational and financial impacts and implications of various driver

assignment solutions as well as "paddles". Details of the required paddle content will be finalized upon award of the contract.

4.1.8 Additional System Requirements
In addition to the above requirements, the system shall:

- Support point and click creation of patterns. (i.e. be able to select points from a map that constitute a route pattern).
- Be able to copy trips as follows: One schedule to a new schedule – (i.e. winter to summer or school to no school), one or more trips from one schedule to another – (i.e. copy two trips from the winter schedule to the spring schedule; one trip within the current schedule, special trips from one schedule to a new schedule and to be able to complete the above using "drag and drop".
- Accommodate special trips and detours at the scheduling level.
- Accommodate 30 time points per pattern (Proposers should specify maximum limit)
- Be able to define points that are not actual bus stops.
- Be able to modify time points in existing trips including changing time point location and changing time point time on a single or multiple trips in one step.
- Be able to modify trip times at a time point by an increment of time (+ or -) on a single or multiple trips in one step.
- Be able to shift all time points in a trip (+ or -) by a user specified amount of time on one step.
- Be able to print or display time points by sequence in a readable format including by individual time points and by the entire schedule time points
- Be able to assign attributes to time points and bus stops (names, maximum vehicle capacity, ADA compliant, near side, far side, turnout, presence of a shelter or other amenities etc.)
- Be capable of geographically and or numerically displaying the times of all trips and routes traveling through a common time point.
- Allow for different running times between time points by: direction, time of day, day of week, route, route pattern.
- Use minutes and seconds as standard time units.
- Allow trip attributes to be assigned or viewed by trip or route (vehicle type restrictions, pull-in, pull-out, block number)
- Allow for dispatching from more than one location.
- Perform analysis of the effectiveness of pulsing between routes at any location in the system and includes an adjustable definition of the proximity of stops which are considered to be connecting points and include the ability to develop connections with other modes (rail etc.)
- Allow/prohibit the specification of a time point for layovers.
- Allow specification of minimum/maximum layover, or layover as a percentage of the run time.
- Be able to accept, reject or edit automatic blocking.
- Allow the user to set a limit on the number of vehicles allowed at once at a given time point (for example, there is a constraint on the number of buses that can be accommodated at one time at the City's downtown terminal).
- Allows for system defined holidays by transit facility and route.
- Allow for infinite patterns on routes (Proposers should specify if a maximum exists)
- Be able to maintain seasonal routes.
- Be able to maintain different schedules by day of week.
- Be able to maintain different blocking by day of week without creation of addition trips.

- Be able to maintain alternate schedules (i.e. special schedules for early school dismissals)
- Be able to maintain different schedules for different transit facilities
- System shall be configurable via parameter tables and modified by a system administrator to reflect union contract provisions including but not limited to: min/max work times/part time operator restrictions, spread times, spread premiums, report times, travel times, over time.
- Support user defined parameters for work rules, as reflected in the current labor contract, during automatic run cutting such as but not limited to: percentage of maximum/minimum number of straight runs, percentage or maximum/minimum number of split ruins, percentage or maximum/minimum number of part time runs.
- Be able to enforce, warn or ignore violations of work rules during the construction of runs.
- Be able to lock or unlock schedules by user (controlled by user level security).
- Be able to optimize scheduling functions (blocking, run cutting, person hours, minimum overtime, use of part time operators by: cost, vehicles, operators, run time).
- Be able to compare and combine the best runs of two cuts and create a new run based on cost, tripper content, straights and splits.
- Be able to accept, reject or edit automatic run cuts by: route vehicle type, block or run.
- Be able to query all runs for related information.
- Be able to assign vehicle types and/or vehicle characteristics to routes and to have ability to override or enforce vehicle assignments at the scheduling level.
- Allow the user to identify certain time points as relief points between operator assignments and automatically build the travel time into the assignments.
- Maintain accurate statistics on revenue and non-revenue miles.
- Have unlimited ability to save and retrieve previous and "what-if" schedules and run cuts.
- Ensure the name of each run cut shall be unique when saved.
- Be able to maintain notes (codes) at and to attach them to paddles and public documents
- Automatically number jobs using a convention defined by the City.
- Measure trip distance to within 1/50 of a mile.

All rules for the run cutting shall be defined and shall be able to be easily changed by City staff in the future.

4.2 Wizards and Additional Tools
Proposers are encouraged to discuss in detail, elements that simplify the use of their proposed scheduling system including wizards, editing, and data integrity tools.

4.3 Reporting from the Scheduling Module
A critical element of the scheduling module is a comprehensive and easy to use reporting system with a library of prepared or "canned" reports. Reporting capabilities shall be available to authorized users on screen and in print. The system shall also have simple data import and export capabilities to standard ASCII text and PC software such as Microsoft Word, Access, Excel and PDF. The system shall have the ability to copy information to a clipboard for use with Word or Outlook. Proposers shall supply the City with a comprehensive list of reports to be included in the system. The system shall contain a full report generating capability to produce custom reports specified by the City and shall be able to perform *ad hoc* reporting and data reports as required.

The system shall include an Open Database Connectivity (ODBC) - compliant reporting tool. All standard and customer reports delivered with the system shall have been built by and shall be editable by staff via the reporting tool. If applicable, both the source and compiled versions of the reports shall be provided.

Proposers shall include a complete and detailed listing of scheduling reports available. In addition, the proposer shall specify the level of effort as well as what, if any, programming is required by City staff to generate each possible report.

The list below indicates the minimum reporting capabilities that are required under this RFP.

Route Definition and Bus Stop Inventory
- Turn lists by route and by direction
- List of time points by route
- List of bus stops by route
- List of routes that serve a given stop or timepoint
- Field amenities available by stop
- Stop to stop distances by route
- List of layover amenities by layover location (canteen)
- Report on capacity limits by layover location

Schedule Development/Trip Building/Creating Timetables
- Run times between timepoints/stops by time of day and direction
- Average speeds between timepoints
- Deadhead run times
- Summary of vehicle requirements by trip
- Summary of deadhead routing instructions
- Summary of estimated trip passing times for each stop
- Information for Public Schedules

Blocking
- List of blocks and their characteristics that can be sorted by user
- Block summary reflecting comments, timepoints and deadhead information
- Summary of vehicles in operation by time of day (peak pullout)
- Summary of operational statistics by blocks and user defined trips including revenue hours, non-revenue time, layover and the number of trips for each block.
- Summary of operational statistics by user defined subset of routes, single route or company wide
- Vehicle pull-in and pull out list by garage
- Summary of work to be completed by one or multiple vehicles
- Field supervisor's reports showing all trips at specific (user defined) locations
- Route statistics depicting revenue and non revenue hours, miles, by route

Runcutting/Rostering
- Produce reports on platform, deadhead and revenue hours and miles by user-defined parameters such as trip, block, route, time period, service day, community, and route classification.
- Be able to analyze cost with respect to union contract provisions including but not limited to: pay rates, work rules, management requirements, facility and specific rules.
- Produce customizable "paddles" (driver cards) – Currently, in addition to timepoint and schedule information, the Autority provides its operators with the information listed below. Paddles shall, at a minimum, incorporate these items. In addition, The City is interested in providing operators with information pertaining to the schedules of other buses operating on the same route.
- Destination sign codes
- Report times
- Relief "by" (run number) information

- Relief times
- Relief locations
- Garage to start and end to garage (deadhead) directions
- Roster report depicting roster details including run number, time on/off, start and end time
- Job cost by job type
- List of jobs
- List of relief points
- An operations/dispatch list listing depicting start and end times of each job
- Shuttle report for shared trips to relief points

4.4 System Software Requirements

Proposers should explicitly state the name of any third party products that are proposed for the scheduling module. The Proposer shall also completely support any third party product proposed and shall explicitly state they will fully support the proposed product through out the entire warranty period.

SECTION 5
5.0 Software Requirements

This section describes the required characteristics of the TIN software. It is neither intended nor possible to list all software or all characteristics of the software required. The Contractor shall, however, provide all software necessary to satisfy the TIN functional requirements described in this RFP.

5.1 General Characteristics

The Contractor shall provide standard, field-proven software products wherever possible. The City will consider changes in the software requirements and characteristics if it can be shown that a proposed alternative approach using the Proposer's standard, field-proven software will meet the functional needs of the TIN in a reliable and cost-effective manner. New software, or software modified to satisfy this Specification, will be considered specially designed for this project. The City reserves the right to approve the design of such special software without relieving the Contractor of the responsibility to meet the functional requirements of this Specification.
All operating system, database, utility, and network software shall be products that are commercially available, standard, unmodified, and whenever possible, off-the-shelf products produced by well-established and reputable suppliers. The most-recent version of each product that is available at the time of factory acceptance shall be provided, subject to City approval. For all third-party software, the Contractor shall install all applicable vendor patches or service packs until final acceptance of the TIN by the City. Local third-party support and training shall be available for all standard commercially available software. The following sections specify the required general characteristics applicable to all software provided with the TIN.

5.1.1 Conformance to Standards

The software provided shall comply with industry standards produced by national or international standards organizations, such as the IEEE, ISO, and OSF. The application programs and servers shall use industry-standard programming languages and databases, and shall run under operating systems using industry-standard interfaces to the applications.

5.1.2 Expandability

All software shall be easily expandable to accommodate the anticipated TIN, TIN user, and transit service growth as defined in this Specification. Reassembly, recompilation or replacement of the software shall not be necessary to accommodate the specified growth. The size and configuration of the system shall be specified by easily modified parameters contained in centralized system parameter files.

5.1.3 Modularity
All software shall be designed with sufficient modularity to minimize the time and complexity involved in making a change to any program. The modularity shall include the separation of hardware interface modules from other software modules. Object-oriented programming technology is preferred.

5.2 Operating System Software
The system-level software provided shall include operating systems capable of supporting the performance and response requirements of the TIN. The City may provide the Contractor with servers configured to the City's specifications equipped with Microsoft Windows Server 2003, or later. All City provided workstations shall be equipped with Microsoft Windows XP Professional, or later.

All supplied operating systems shall not be modified or patched by the Contractor in a manner that is not approved by the operating system vendor.

5.2.1 Network Software
The TIN shall include network software that supports the data communications network within the TIN and its connections to the various existing City networks. Software for network communications, security, network services, and network management shall be provided. This software shall consist of standard off-the-shelf products.

The network software shall support access by TIN users to printers and file servers on the Santa Clarita Transit WAN. This network software, in conjunction with appropriate security software, shall also support controlled access to the TIN Information Server by users on the Santa Clarita Transit WAN. A diagram of the current City network is provided in Appendix G.

5.2.2 Diagnostic Port Access Security
Remote diagnostic ports shall be individually enabled and disabled by the TIN system administrator via a display. The enabling of a port shall be done, at the system administrator's option, for either a single terminal session or until disabled by the system administrator. The system administrator shall have the option of being notified periodically by the TIN, via an alarm or event message, that the diagnostic port is enabled; and of being notified of each log-in and log-out and the port that was used.

5.2.3 System Performance Monitoring Software
Software shall be provided to continuously monitor hardware and software performance and gather performance statistics in real-time with a minimum of interference with the normal TIN functions. The time period over which the statistics are gathered and saved shall be adjustable by the system administrator, and the accumulated statistics, after storage in a save file, shall be reset at the start of each period.

The system performance monitoring function shall include processor resource usage monitoring and application program resource usage monitoring. The TIN shall include on-line services that permit the system administrator to individually enable, disable, and reinitialize each performance monitoring function. The supplied performance monitoring software shall be suitable for evaluating the performance of the TIN against specified requirements during factory and field testing.

5.2.4 Error Monitoring
The TIN servers shall employ on-line error monitoring. TIN devices shall be monitored for both recoverable and non-recoverable errors at all times, even if a backup device is available. The TIN shall monitor all devices and types of errors normally monitored by the operating system software. Error monitoring statistics shall not be lost upon failover or restart. The TIN shall enable the system administrator to configure notification alarms for specific error events. The alarm notification shall provide a message at the workstations of all currently logged in system administrators, though other options such as e-mail notification are a desirable feature. Alarm notification shall be provided for, but not limited to, the following events:

- Server disk failures
- Server UPS (uninterruptible power supply) alerts
- LAN/WAN failures and error conditions
- Server failover and restarts.

5.3 Online Database
The TIN shall include an online (i.e., continually updated and accessible) database that maintains comprehensive current and limited historical information on the TIN operating state, including, but not limited to, data on communications status, system status, route and schedule information, incidents, events, data required for displays and reports, data retrieved from the revenue and non-revenue fleets, data entered by TIN users, and data retrieved from other computer systems. The online database shall support industry-standard SQL (ISO 9075 or later) for all forms of access, and shall also be ODBC (Open Data Base Connectivity) compliant to enable access by ODBC-compatible user applications.
The TIN database(s) shall be expandable so that data for future functions can be readily included. All portions of the database as delivered with the initial TIN shall be sized to accommodate the ultimate user, fleet, and service area requirements described in this Specification.

5.4 Information Database
The TIN shall provide a dedicated information database. This database shall replicate necessary data from the online database, and shall also include any other data that may be required in order to satisfy all requirements of the Information Retrieval function as specified in section 2. Linkage to suitable archive storage facilities shall also be provided for this database in order to satisfy requirements for information retrieval of data residing in long-term storage.
Access via industry-standard SQL (ISO 9075 or later) and third-party ODBC compliant front-end application software shall be supported.
The provided software shall enable users to retrieve, process, and format data for display, reporting, and exporting for use in other systems. Processing capabilities shall include the ability to summarize retrieved data, including counts, totals, maximums, minimums, averages, etc. Facilities shall also be provided to convert retrieved data to common export formats, including a comma-delimited ASCII flat file, for transfer and subsequent use in external office applications (e.g., a spreadsheet).
Formatted reports and results of user queries shall be displayed and printed at the user's option. A wide variety of formatting options shall be supported for presentation of retrieved data, including support for various paper sizes and orientations, various fonts, data grouping and sorting, and support for graphical analyses such as charts and graphs. Facilities shall be provided for defining, saving, and recalling queries that will be frequently performed.

5.5 GIS Map Database
The TIN shall include a geographic information system (GIS)-based database of the entire Santa Clarita Transit service area. The GIS database shall support all of the functions and features required by this Specification, such as layering to permit separation of complex mapping information based on its type and/or function.
The GIS database shall be used by all map-related functions within the TIN, such as AVL. The programming APIs for interfacing with the GIS database shall be provided along with licenses and all relevant programming documentation on their use. TIN shall allow ten (10) concurrent users of the map-related functions.

5.6 Care and Maintenance of System
Proposers shall discuss the care and maintenance of the proposed system including the general requirements for system updates. Discuss in detail the type of staff people necessary for this maintenance including the prerequisite recommended computer skills, knowledge and technical background that staff should have to perform this job.

5.6.1 Software Maintenance Tools
The Contractor shall provide all software necessary for the continued maintenance of the TIN following installation. One copy of all such software maintenance tools used by the Contractor during development shall be provided, regardless of whether all source and object code required by the tools has been supplied to the City. Further, to ensure that the City can maintain the software and firmware, Contractor shall place the source and/or object code in escrow (see Section 11.11.12), and all tools not otherwise required by the City for continued maintenance of the TIN shall be placed in escrow along with the code.
Contractor-supplied updates to TIN software provided after initial installation shall also include any necessary updates to the software maintenance tools in order to keep the maintenance tools valid and usable for the currently installed version of the TIN software. This requirement shall apply regardless of whether the tools have been supplied to the City or have been placed in escrow. Access to maintenance software shall be password-protected to protect against unauthorized usage. All maintenance software shall execute without interfering with the online system. All updated objects, such as displays, reports, and programs, shall be capable of replacing the current copy of the object without significant interference with online system operation. It is desirable to be able to distribute updated objects on-demand to all affected workstations with a single command. Requirements for specific types of software maintenance tools are contained in the following sections.

5.6.2 Report Generation/Editing Software
The TIN shall include facilities to allow authorized TIN users to generate new report formats and edit existing report formats. The Contractor shall use this same report generation software to construct all Contractor-provided reports.
The report generator shall enable an authorized user at any workstation to construct ad-hoc queries and define reports for any TIN data via interactive procedures that do not require knowledge of SQL. The capability to format reports for both display monitors and printers shall be provided. Executing the report generating function shall not interfere with the on-line functions of the TIN.

5.6.3 Programming Languages
The Contractor shall provide the programming languages used for all software supplied with the TIN. the City prefers a system that is written entirely in high-level languages conforming to industry recognized standards. All languages shall include their associated compilers, assemblers, and loading facilities needed to add new programs written in the language. All libraries, class libraries, and individual classes shall be included, as used by the Contractor. Where feasible, the commercial software vendor's class libraries and development tool kits shall be used in preference to third-party tools.
All custom software shall be written using high-level languages conforming to industry recognized standards and shall be easily transportable to other City-owned computer systems and workstations that use the same standard language. Data access and data manipulation facilities in each language shall provide complete access to and control of the TIN data.

5.6.4 Source Editor
One or more source editors shall be provided for creation and modification of program source code. While a single source editor is preferred, multiple source editors are acceptable, provided that all editors are the same as used by the Contractor's programming staff for work on the TIN.

5.6.5 Code Management
A code management facility shall be used for documenting and controlling revisions to all TIN programs. This facility shall maintain a library of all Contractor-provided and City-developed source, object, and executable image code, and provide a controlled means for changing library files containing this code. It is desirable that the utility also support revision management of system documentation.

The code management utility shall include inventory, version, and change control and reporting features. Program module inter-dependencies shall be included in the library for user reference. The description of inter-dependencies shall be compatible with the object code and program building facilities, such that dependent programs may be rebuilt automatically whenever a program, module, or library is changed. The code management facility shall retain a complete history of additions, deletions, and modifications for all programs, program modules, and program libraries.

5.6.6 Software Tester/Debugger
The software shall include one or more on-line, interactive software test and debugging utilities to assist in the testing of new and revised programs. Security checks shall be built into the software testing monitor to prevent the program under test from affecting the operation of the real-time functions. The test/debug utility or utilities shall be the same as that used for the Contractor's work on the TIN.

5.6.7 Software Integration
Software integration services shall be provided for adding new programs to the set of active software after the programs have been tested. These services shall include commands to substitute one program for another, to set up or modify operating system tables, and to schedule and activate a new program with a minimum of interference with the normal running of the TIN. The capability to restore the TIN to its status prior to the new program integration shall be provided.

5.6.8 System Build
All required software elements and tools (including libraries, compilers, linkers, loaders, licenses, etc.) shall be provided with the TIN to enable City personnel to rebuild portions of the system, or the entire system, using only the elements supplied. The City shall be able to perform all system build functions and generate an executable object of all software and database structures (excluding third-party software, such as operating systems and database systems) at City offices, without the necessity of returning to the Contractor's facility and without requiring Contractor engineering or programming support. The procedures necessary to accomplish a complete system build on the TIN shall be provided as part of the system documentation.

5.6.9 Third-Party Software Libraries
All third-party source and/or object libraries required to build the TIN shall be provided, including the necessary documentation for programming with these libraries. All Contractor modifications to these libraries, if any, shall be clearly documented in the material supplied to the City.

5.6.10 Online and Information Database Maintenance
The TIN shall include all administrative and maintenance tools and facilities associated with the online, real-time, and information databases. Tools of this type shall include, but not be limited to performance monitoring and tuning; backup, restoration and recovery; and facilities for modifying, extending, and adding database structures.

5.6.11 GIS Database Maintenance
The TIN shall support GIS database updates made by importing externally supplied (external to the TIN) map data, and through direct maintenance of existing GIS map data via supplied maintenance utilities. Import capabilities shall enable import of new base map data acquired from external sources, while allowing the user to selectively retain existing map overlays (e.g., routes and bus stops) within the GIS database. Import capabilities shall support a variety of common GIS map interchange formats, including ESRI Shape file, ARCview, MapInfo and Enhanced TIGER formats.
GIS database maintenance software shall also enable a user to directly add to and update the base map residing in the database (e.g., adding and changing streets and street names), and to modify and update City-specific map overlay data. The map overlay data that shall be maintainable using these facilities shall include, but not be limited to, transit routes, bus stops,

transfer points, time points, transit facilities, landmarks, garages and any other data needed to support requirements in this Specification or required by the TIN.

5.7 Software Utilities
Efficient, reliable, well-documented, user-oriented software utilities shall be provided. All utilities shall be subject to a common design methodology and common standards in order to provide a similar look and feel among the utilities. All user-interactive utility software shall provide a graphical user interface.
The utility software shall operate on-line without jeopardizing other TIN functions running concurrently. Utility software shall be accessible from workstations and server terminals, and from command files on mass storage. Multiple users shall have concurrent access to each utility program, provided there are no conflicts in the use of data files and peripheral devices. All utility software required to maintain the TIN software shall be provided.

5.7.1 Text Editor
A general-purpose text editor shall be provided for the TIN. If necessary, servers and workstations may use separate text editors.

5.7.2 File Management
File management utilities shall be provided for the system administrator and the TIN programs to allocate, create, modify, copy, search, list, compress, and delete program files and data files on mass storage and removable media storage devices supplied with the TIN.
The file management services shall maintain a record of the mass storage allocation of all programs and data. This record shall be available for display and printing upon request.

5.7.3 Data Conversion
While the City is not migrating from one software system to another, Proposers are encouraged to discuss the import or input of existing data into their software system. If Contractor supplies a replacement to RouteMatch, a cutover plan shall be provided.

5.7.4 Copy Utility
A copy utility shall be provided that transfers files of any kind from any storage device to other storage and output devices, including any required format conversions.

5.7.5 Backup Server (Option)
A server shall be provided that can provide a backup for all TIN data.

5.7.5.1 Disaster Recovery
The Contractor will be required to develop a plan to prevent catastrophic problems and/or data loss in the system and provide the City with a plan for the recovery of data and the rapid re-establishment of the system in the event of a disaster. The Contractor shall describe the length of time to recover for a system failure including whether or not a redundant application and database server system is required and the length of time required for the application software to be loaded and the system running after a failure of the primary system.

5.7.6 Archive Utility
At a minimum, the City would like to have three (3) years of data regarding the service on hand for easy reporting and querying. Proposers should present a plan for the archiving of data, the management of the archive and the required/recommended hardware for data storage. Proposers shall discuss their recommended data archive approach. Any proposed archive utility shall also support the temporary restoration of offline historical data to the TIN in order to enable user access via TIN functions, such as reporting and playback.

5.8 Contractor's Future Software Changes

City shall be placed on the Contractor's regular mailing list to receive all software announcements, including announcements of new software releases and other improvements that could be made to the software furnished with the TIN. Solutions to problems with Contractor-supplied software, whether discovered and corrected on the TIN or elsewhere, shall be documented and supplied to City without additional charge. This service shall include announcements and fixes pertaining to Contractor produced software for five (5) years after final system acceptance, and shall include announcements pertaining to software produced by third-party suppliers for the life of the TIN warranty.

Proposer shall provide methodology for software patches and software upgrades.

5.9 Software Licenses

All applications software purchased for use under this contract shall name City as the licensee. This includes any commercial off the shelf software. The Contractor shall provide unlimited site licenses for owned software. The Contractor will be responsible for ensuring all licenses are valid for a minimum period of one (1) year, following formal acceptance of the TIN system. The Contractor shall incorporate the costs of all software licenses required to operate the TIN in their proposal and will report the upgrade costs and timeframes to the City for consideration as part of their proposal.

All software licenses which includes; interface control documents, and application programmer interfaces, and/or its equivalent software/control documents shall reside with the City, shall identify the City as the licensee, and shall be delivered prior to final acceptance. All original copies of software licenses and programs provided shall also be delivered before final acceptance.

SECTION 6
6.0 Optional Interfaces

To expand the functionality of the TIN system, the City requests that the Contractor explain how the following functions could be integrated in to the proposed system at some point in the future. Inclusion of the following features would be based on cost and anticipated value to the City.

The TIN system will be required to interface with several external systems in order to expand the systems functionality. These interfaces should allow for a integration of specified systems without requiring significant modifications to the TIN programming.

6.1 Interface with Video System

TIN shall support wireless downloads of video stored onboard by SCT's Mobile View 3 and Mobile View 4 video systems. This interface shall also support any and all features available on the Mobile View product. Proposers shall provide a detailed description of the interface and where this interface has been previously implemented.

6.2 Interface with RTA

TIN shall support the import of the vehicle down list and the extended or delayed maintenance lists from RTA. TIN shall also support the export of vehicle alarms such as, but not limited to over heating, farebox malfunctions, and engine warning signals to RTA for use in on-going vehicle maintenance. The data shall be stored in the TIN database and accessible for queries by TIN users.

6.3 Interface with City Traffic Signalization System for future BSP system

The City of Santa Clarita traffic operation center currently controls 167 traffic signals and 81 surveillance cameras within the City boundaries. The traffic operation center currently uses two software management systems QuicNet 4.1 and Live Wave First View.

QuicNet 4.1 Advance Traffic Signal Management System. This system allows the traffic signal system to be monitored and optimized from the TOC. This software also includes ITS applications such as Priority Tied to Schedule and Transit Mall Entrance

LiveWave's FirstView IP video management. This system is scalable to support thousands of cameras. The remote accessibility of the system allows other agencies, such as the Sheriffs Department and other password approved parties to log on to the system through a web site and view camera activities on standard PCs around user's facilities.

The existing communication infrastructure utilizes fiber optics, twisted pair copper wires and wireless technology to transmit video and data between the TOC and the field equipment (traffic signal controllers and Pan, Tilt and Zoom cameras).

From the TOC, the current conditions of arterial, streets and intersections, as well as the traffic signal operation could be monitored in real time. Traffic signal timing could be adjusted from the TOC to improve traffic flow when incident may occur.

Future Updates

Incident Traveler Information Subsystem

The project will expand the data collection component by adding detector stations, CCTV and communications to the existing system and expand the city's lane closure and construction reporting system.

The data will be integrated and formatted at the TOC for provision to Sheriffs Department and for several dissemination methods. The traveler information dissemination methods will include a city traveler information web site linked to the regional and Caltrans web sites, automatic notification through text messaging and e-mail notification, and trail blazer signs on alternate routes.

The specific components of the projects are:

- Sixteen (16) permanent count stations
- Ten (10) new CCTV camera locations
- Three (3) portable trail blazer changeable message signs
- Real-time map of traffic conditions on City's website
- Notify public via text messaging and e-notification.

The requested interface shall allow the TIN to communicate with the City's existing traffic control system (see Section 6.3) and send information on vehicle locations, on-time performance, rate of speed, and any other information necessary to provide transit vehicles with signal "priority status". "Priority status" shall be determined by the City and may change as the project develops.

SECTION 7
7.0 Hardware Characteristics

This section describes the hardware equipment characteristics for the TIN. Characteristics are discussed within the context of the design approach presented in these specifications. The Proposer may propose an alternative configuration better suited to the characteristics of the Proposer's standard products if it represents a superior compromise between performance and cost. The purchase of an alternative configuration by the City shall not release the Contractor from the contractual obligations to satisfy the functional, availability, capacity, expandability, and other requirements of this specification. Where an alternative approach is proposed, the Contractor shall provide all necessary hardware, software, documentation, and services necessary to achieve the functionality required by this RFP.

Unless explicitly stated otherwise, the requirements defined in this section apply to all local and remote classes of TIN equipment including mobile, fixed-site radio, remotely located, and dispatch office equipment.

7.1 General Requirements

All hardware shall be manufactured, fabricated, assembled, finished, and documented with workmanship of the highest production quality and shall conform to all applicable quality control standards of the original manufacturer and the Contractor. All hardware components shall be new and suitable for the purposes specified. All hardware provided shall be commercially available, standard, off the-shelf products manufactured by well-established and reputable manufacturers. The Quality Assurance Plans of the Contractor and major end item manufacturers shall be submitted for review as part of the proposal.

Delivered hardware shall include all applicable engineering changes and field changes announced by the equipment manufacturer since it was produced. As part of the field performance test, the Contractor shall certify that all supplied equipment can be placed under a maintenance contract by the local service offices representing the equipment manufacturers.

7.2 Servers
The Contractor shall provide and install a four post rack server(s) for the TIN, including all necessary racks, mounting hardware, cabling and other components necessary for a complete and fully operating installation of the servers with redundancies. Server hardware shall include dual Ethernet ports and dual power supplies. Additional server requirements are contained in the following sections. The City reserves the right to provide any and all server(s) and server mounting rack(s).

7.2.1 Main Memory
Each server shall be equipped with sufficient main memory to meet all performance requirements of this Specification, but shall be a minimum of 4 GB. The main memory of each supplied server shall be expandable in the field to at least two times the size of the delivered memory. This expansion shall be possible solely by the addition of expansion cards or memory modules and shall not require the replacement of the motherboard or the addition of enclosures, cables, chassis, or power supplies. Delivered memory shall include all memory installed in the server at the time of Final Acceptance, whether or not the memory is needed to meet the requirements of this Specification.

7.2.2 Processor Utilization
The TIN servers shall support all functions described in this Specification utilizing no more than 40% of the total processing capability of each server under the peak loading conditions defined in Appendix E.

7.2.3 Server Terminals
The Contractor shall provide one or more shared server terminals for managing all supplied server equipment. Shared server terminals shall be quickly and conveniently switched among associated servers without unplugging or re-attachment of cables and without adversely affecting the operation of the servers. A server utilizing a shared terminal shall be capable of booting up without the shared terminal being switched to that server.
All server terminals shall be rack mounted in a location that is easily accessible by the user from a seated or standing position and within close proximity to the front panels of the associated servers. All server consoles shall consist of a color flat-panel monitor with at least a 20-inch diagonal screen, a QWERTY keyboard, and a mouse or trackball. The server terminals shall be packaged to utilize a minimum of rack space and shall be retractable so as not to interfere with the use of rack doors.

7.3 Workstations
All Contractor-supplied workstations shall consist of computer hardware that is compliant with Intel/Microsoft PC99, or later, design guidelines. Monitors, keyboards, and cursor-positioning devices supplied with workstations shall be connected via plug-detachable flexible cords, and shall be manually interchangeable between all workstations. Additional workstation requirements are described in the following sections.

7.3.1 Main Memory
Each workstation shall be equipped with sufficient main memory to meet all performance requirements of this Specification, but shall be a minimum of 1GB. The main memory of each supplied workstation shall be expandable in the field to at least two times the size of the delivered memory. This expansion shall be possible solely by the addition of expansion cards or memory modules and shall not require the replacement of the motherboard or the addition of enclosures, cables, chassis, or power supplies. Delivered memory shall include all memory installed in the local workstation at the time of Final Acceptance, whether or not the memory is needed to meet

the requirements of this Specification.

7.3.2 Workstation LAN
Local workstations shall be connected to the TIN servers and any other necessary external devices via the Contractor-supplied TIN LAN in accordance with City standards.

7.3.3 Processor Utilization
Workstations shall utilize no more than 40% of total processing capability while executing all TIN client application software that is required by the associated workstation position under peak loading conditions defined in Appendix E. Bidder must specify processor to be used.

7.3.4 Workstation HMI (Human-Machine Interface) Equipment

7.3.4.1 Keyboard
Each workstation position shall be equipped with one QWERTY keyboard, regardless of the number of computers required for the position. Where the Contractor's design requires multiple computers at a workstation position, a means shall be provided for the user to quickly and conveniently switch control among the workstation's computers. The keyboard shall include a minimum of 12 function keys that initiate specific functions or display requests. The function keys shall be arranged in logical functional groupings. All supplied workstation keyboards shall be identical.

7.3.4.2 Mouse
Each workstation shall be equipped with one optical mouse, regardless of the number of computers required for the workstation position. Where the Contractor's design requires multiple computers at a workstation position, a means shall be provided for the user to quickly and conveniently switch control among the workstation's computers. The workstation mouse shall be equipped with at least two pushbuttons and a scroll device. The mouse shall produce cursor movement along any axis and at a speed proportional to the motion of the mouse. A means to adjust the proportionality of the mouse to cursor movement shall be provided.

7.3.4.3 Monitors
All workstations shall include freestanding flat-panel LCD, or equivalent technology, monitors with at least a 20-inch diagonal viewing area. Multiple monitor configurations shall be configured such that the combined display area of all monitors serves as a single, contiguous desktop under the operating system. Explicit user switching among monitors in a multiple monitor configuration shall not be required.

7.3.4.4 Audible Alarm
Workstations shall be equipped with internal speakers that are capable of sounding repetitively. The audible level shall be adjustable for each workstation.

7.3.5 Remote Workstations
Remote workstations are defined as all TIN workstations that are not directly attached to the TIN LAN. Special consideration shall be made for remote workstations connected via WAN infrastructure, since throughput may be significantly less than that of the LAN. Remote workstations may be configured identically to local workstations, or may be Windows terminals that utilize a terminal server. In this configuration, the Contractor shall supply all necessary terminal server hardware and software for the TIN and provide Citrix-compatible Windows terminals, or equivalent, for all remote workstations. All remote workstations shall be subject to the same HMI requirements specified above for local workstations regardless of the implementation approach that is used.
Proposals shall describe the design approach for remote workstations along with the estimated WAN bandwidth required under the peak loading conditions.

7.4 TIN Local Area Network
A local area network (LAN) shall be supplied to interconnect TIN servers, local workstations, printers, and other TIN network devices. The supplied LAN shall be Ethernet conforming to the IEEE 802.3 series standards; wireless LAN technology (802.11) shall not be used for this network. The LAN design shall be consistent with City standards and preclude LAN failure if a server, workstation, device, or LAN interface fails. The LAN design shall also allow reconfiguration of the LAN and the attached devices without disrupting on-line operations. All equipment, cable, and installation required for the TIN LAN shall be the responsibility of the Contractor.
The supplied TIN LAN speed shall be at least 100 Mbps.
The Contractor shall supply all necessary LAN segmentation and interconnection devices (e.g., hubs, routers, switches, bridges, etc.) to provide connectivity among all supplied servers, workstations, and other supplied network devices. All such devices used in the TIN shall comply with City standards, be from the same manufacturer, and if practical, from the same scalable family of devices. The LAN shall be secured with a Contractor-supplied firewall device that blocks all unauthorized users and systems. The Contractor shall be responsible for initially configuring the firewall device to provide the required level of security.

7.5 Mass Storage
The mass storage supplied with each server and workstation shall have sufficient storage capacity to satisfy the requirements of all TIN functions under the peak conditions. Seventy five percent (75%) of each server's and workstation's delivered mass storage shall be spare capacity, completely free and available for City use. Each server's and workstation's mass storage shall also be expandable in the field within the delivered enclosures to at least two times the delivered capacity, where the delivered capacity includes the spare capacity provided in accordance with this Specification and spare capacity in excess of specified requirements.
Where the data stored on mass storage is distributed among multiple storage units, the requirements for mass storage spare capacity and expansion shall apply separately to each mass storage unit or set of units allocated to one data type.
Mass storage access and transfer times must be sufficient to serve the specified present and future needs of the system. No more than 60% of the available access and transfer capacity shall be utilized under the peak system loading conditions defined in Appendix E.

7.6 Archive Storage
The TIN shall include a high-density archive storage system for long-term storage of the historical and operational data defined in Section 2. The archive storage system shall consist of at least 2 DVD+/-R/RW drives with each unit having a media storage capacity of at least 8 GB. The archival medium shall have a minimum storage life of seven years after the data is written. An alternative removable media technology may be proposed if it offers superior performance at a comparable cost.

7.7 Backup Storage
The TIN shall include a high-density backup storage system that is configured for and capable of backing up all TIN servers. The backup storage system shall support backup of system software, applications, and data on a periodic basis onto removable media. The media selected for this backup function shall be rewriteable so that The City may reuse the backup media when it no longer needs to be retained. The backup system shall support full system recovery for each TIN server and workstation, including all operating system software. The backup storage device shall have sufficient capacity to allow unattended daily backup operations for a period of at least seven contiguous days without requiring replacement of backup media. Bidder must provide details regarding back-up speeds of the proposed back-up system.

7.8 Remote Diagnostic Port
The TIN shall include a connection for use as a remote diagnostic port by the Contractor and by The City. Diagnostic access can be performed via existing facilities, such as a secured Internet connection, or via dedicated dial access with suitable bandwidth to enable diagnosis of problems

and exchange of text and binary files. The diagnostic port shall be protected by a name and password entry and shall be enabled and disabled by the system administrator as described in Section 5.2.2..

7.9 Consoles
Consoles shall consist of the components specified in the following sections. For components noted as "Option", if the option is not exercised then the City will supply an equivalent component.

7.9.1 Radio Equipment
The City realized that the complement of radio equipment required can vary for different types of TIN users. The following sections describe the minimum requirements for specific radio equipment components. Section 12 contains additional radio equipment and installation requirements.

7.9.1.1 Headsets/Microphones
The Contractor shall provide two wireless headsets for each of the Dispatcher consoles. The interchangeable headsets shall be monaural (single-ear) with integral microphones and shall include coiled cables of at least three feet in length. The wireless headsets shall have a minimum range of 50 feet including adjoining rooms.

7.9.1.2 Push-to-Talk Switches
Push-to-Talk (PTT) switches shall be provided as part of the headset and as a footswitch at each designated user position. The switches with the headsets shall be clip-on to permit users to wear the switch (e.g., attach to a belt). The foot-activated PTT switches shall not be secured to the floor, and shall be connected to the desk with a heavy duty, strain relieved cable.

7.9.2 Telephone Equipment
the City will provide freestanding desktop telephones for each console position. The Contractor shall make provisions in the console layout for the placement of this equipment to the left of the user's seated position.

7.10 Differential GPS Reference Receiver
The Contractor shall specify where the DGPS equipment should be located. The City would prefer that any GPS reference receiver be installed at a staffed City facility for ease of maintenance. The Contractor shall also provide all equipment and cabling necessary for interfacing the differential GPS reference receiver to the TIN, to the differential reference receiver antenna, and to the power source.
The Contractor shall conduct a precision survey to accurately and precisely determine the position of the installed GPS reference receiver antenna. The Contractor shall be responsible for providing or leasing any test equipment required to perform the precision survey.
The pseudo-range and range-rate corrections for each GPS satellite in view of the reference receiver shall be calculated by the differential GPS reference receiver and transmitted to each GPS equipped vehicle at least every 30 seconds.

7.11 Time Facility and Displays
A total of two (2) wall-mounted, digital LED or LCD displays shall be provided and installed by the Contractor. The exact locations of the displays within the facility shall be mutually determined following Contract Award.
The displays shall be driven by the coordinated TIN current time and shall be updated every second. The time shall be presented in a 24-hour format that includes hours, minutes and seconds. Display characters shall be at least 2 inches in height and shall be sufficiently bright to be clearly readable from a distance of 50 feet .

7.12 Passenger Information Displays
The Contractor shall provide and install the number of passenger information displays set forth in Section 13. The passenger information displays shall be capable of displaying the expected time of arrival and route number for buses approaching the bus stop where the display is located. The passenger information displays shall also support the display of special messages generated by an authorized TIN user. TIN shall also automatically display general system messages on a user defined schedule (up to 30 days in advance).
The displays shall be of rugged construction, vandal resistant, reliable, maintainable, and suitable for installation in covered, but otherwise open, passenger information enclosures. Scrolling or alternating of text or other suitable means of displaying information pertaining to multiple buses shall be supported. Displays shall be readable under all lighting conditions. Communications with the passenger information displays shall be via wireless communications. A solar power option shall be available for use at locations not currently equipped with a permanent power source.
The specific bus stop locations to be equipped with passenger information wayside displays will be determined by the City following contract award. Installation details for each bus stop location will be determined by the City once the specific bus stop locations have been determined.
TIN shall include the capability to automatically turn off the Displays during certain periods and does not require manual programming of each Display. The time period when the Displays are off shall be a system settable parameter that may vary by location.
TIN shall include the capability to display messages to be displayed at certain Wayside Displays and the capability to schedule in advance the display of the messages. Proposers shall include a description and format of the information to be displayed on the Wayside Display and the accuracy of the time of arrival predictions.
Proposers shall include a description of the information to be displayed on the signs. Display signs shall be the first TIN equipment to be installed and implemented. Static schedule information shall be displayed until time of arrival information is available.

7.13 Voice Logger and Storage Integration
As part of the TIN scope of work, the Contractor shall integrate a voice logger and storage system This system shall include a instant playback function and digitally record and store voice activity, both radio and telephone, from administrator specified dispatch and Customer Service Agent workstations for a period of 60 days. Upon activation by the user, the voice storage system shall play back the stored audio information and allow the authorized user to archive or export all or portion of a stored audio file. TIN shall archive all voice logger data.
The voice storage units shall continuously record voice activity and shall utilize voice activation circuitry so as to only record active audio and not record silent periods. The voice storage system shall have adjustable playback speed controls that allow the user to replay the audio message at normal speed, fast or slow, and retain intelligibility of the recorded message. Playback audio shall be configurable by the user for output to the headset and console speaker. Specifications for the City VoIP telephone system are included in Appendix H.

7.14 Communications Interfaces

7.14.1 Radio Communications Interface
The Contractor shall provide all equipment required to interface the TIN to the City radio system (see Section 12). This interface shall support all functional requirements as defined in this Specification.

7.14.2 Santa Clarita Transit Network Interface
The Contractor shall provide all necessary hardware and software interfaces to connect the TIN to the existing SQL based RouteMatch network. The connection of the City network to the TIN shall be in a manner that isolates the TIN LAN from the City network traffic and vice versa, and that also prevents the City network failures or other disturbances on the network from affecting the operation of the TIN.

7.14.3 Router/Firewall

All router/firewall devices used in the TIN shall be from the same manufacturer, and if practical, from the same scalable family of router devices.

Router/firewall devices shall have simple network management protocol (SNMP) agents for network management and shall support remote terminal configuration of programmable filters.

Routers shall automatically build routing tables and shall include mechanisms (such as spanning tree algorithms) to prevent loops when multiple paths are possible.

Where multi-port routers are employed to interconnect more than two LANs, the multi-port routers shall be supplied with redundant power supplies and shall be configured such that no single failure of an interface card will result in the loss of communications with more than two LANs or more than two remote workstations.

Router throughput shall be sufficient to take full advantage of the available channel bandwidth. The Contractor shall provide the necessary hardware (e.g., routers, filters, firewalls, switches, bridges, etc.) to complete the necessary logical and physical connectivity to all specified LAN components consistent with City standards. The Contractor shall provide all necessary security protection to ensure that unauthorized personnel cannot access TIN LAN resources.

7.14.4 Remote Workstation Interface

The Contractor shall provide all hardware and software required to connect TIN remote workstations (if applicable) and to ensure that these workstations meet all performance requirements specified in Section 3. The Contractor shall acquire and install all links necessary to connect with each selected remote workstation position. Proposers shall provide annual operating cost data for all links proposed to support remote workstations.

7.15 Vehicle Equipment

The Contractor shall provide 73 onboard systems for the fixed route and commuter vehicles that include the voice and data radio, AVL tracking, wireless LAN, farebox interface, headsign interface, APC, AVA signs, optional interface to video system, and vehicle health monitoring.

The City considers the ability to readily interface to a wide variety of on-board devices manufactured by various suppliers as a crucial element in providing the facilities and services required to meet future regulatory and passenger demands. To help meet these demands, the City requires on-board equipment designs that support accepted industry standard vehicle area network (VAN) interface designs and protocols, such as SAE J1708, J1587 and RS232 for communications between the on-board devices and subsystems. At a minimum, the TIN shall interface with the following existing on board vehicle systems:

- GFI Odyssey fareboxes and Cubic fare system
- Digital headsigns
- Existing camera system (optional)
- Engine control (J-Bus) system

In addition, the TIN must support all requested (new) onboard systems included in this RFP including but not limited too:

- Automatic Passenger Counters
- Stop annunciation and display system
- Emergency response systems

The equipment to be provided by the Contractor for installation and use on-board the City vehicles shall be designed, built, and installed for the harsh operating environment in which this equipment is to operate. All Contractor-provided on-board equipment shall operate properly under the environmental conditions encountered on-board the vehicles, including conditions pertaining to temperature, humidity, dust/dirt, power variations, shock, vibration, altitude, and EMI/RFI interference. All equipment must be installed in safe and secured, yet easy to reach locations for maintenance purposes.

All equipment housings (if applicable) shall be water proof, dust proof and resist damage from water directed on equipment while cleaning the inside of the revenue vehicles. The on-board

vehicle equipment provided by the Contractor shall be designed for operation under the following minimum conditions:

- Operating Voltages – 8 to 18 VDC, negative ground
- Operating Temperature – -20 degrees C to +60 degrees C
- Humidity – 98%/66 degrees C profile per SAE 1455
- Shock – 30g of 6 milliseconds
- Vibration – Operating: 1.5g RMS, 5 to 150 Hz
- Endurance – 8g RMS, 100 to 1,100 Hz
- EMI/RFI – FCC part 15 subpart J Class B
- Storage Temperature - -25 degrees F to +150 degrees F

The proposal shall identify the power and environmental specifications of the proposed vehicle equipment and the environmental tests and standards to which the proposed vehicle equipment conforms.

During engine startup, the voltage may drop to 0 VDC for several seconds, particularly in cold weather. The proposal shall define how the proposed on-board equipment is designed to handle this situation, and any re-initialization, re-logins, and/or loss of data that will result when such a voltage drop occurs. The proposal shall address situations where the engine is being re-started, yet the on-board equipment is still powered-on (power-off delay timer has not expired). If internal batteries are used to support information stored in the on-board equipment, these batteries shall provide a three-year (minimum) life under normal operating conditions; the batteries shall be readily available and the containing device shall have a low battery indicator. Removal of all primary power to the on-board equipment or to support electronics shall not cause any loss or corruption of stored data.

The installation details and placement of on-board equipment shall be subject to the City review and approval. The availability and location of space for equipment installation will vary according to the various types of vehicles in the fleet.

In addition to the equipment that the Contractor is explicitly required to furnish by this Specification, the Contractor shall provide any additional equipment that is required to install and/or operate the Contractor-provided equipment on the City vehicles.

All Contractor-installed on-board equipment shall be easily accessible, modular, and easily removable to facilitate maintenance and repair of the equipment. The on-board equipment (e.g., MDT) shall be programmable using a personal computer and via a wireless link. All necessary field programming shall be possible without disassembly of the MDT case. Programming, and other routine maintenance, shall not require removal or replacement of internal devices of any kind.

7.15.1 Vehicle Radios and Associated Equipment

The Contractor shall interface to existing the City mobile radios. Kenwood Models TK-805DK2, TK-805DK12, TK860, & TK862 radios are currently installed on the Santa Clarita Transit fleet. The Contractor shall provide radio handsets, cradles and radio modems, and other associated equipment as necessary and shall be fully responsible for successful implementation of the mobile radio interface. If the current radio system and mobile radios do not support the bidder's proposed system, the bidder shall specify all required upgrades and associated costs for any and all equipment required.

7.15.2 Mobile Data Terminals (MDTs)

The Contractor shall provide MDTs for all fixed-route and commuter vehicles.

Requirements for the MDT are described below in terms of the two major MDT components, which are the Vehicle Control Head (VCH) and the Intelligent Vehicle Control Unit (IVCU). MDTs that package the IVCU with the VCH in a single device and MDTs that consist of two separately packaged devices are both acceptable.

For MDTs consisting of multiple packaged devices, the VCH shall be the only device that must be accessible to the vehicle operator. All other devices of the MDT shall be securely mounted behind vehicle panels or in the City-approved equipment bays or enclosures.

7.15.2.1 Vehicle Control Heads (VCH)

The Contractor shall provide Vehicle Control Heads (VCHs) that serve as the sole TIN user interface device for the vehicle operator. The VCH shall be securely mounted on rigid Contractor provided support brackets that are customized by the Contractor, as needed for each type and variation of vehicle within the City fleet. the City and the Contractor shall jointly decide the placement and mounting of each VCH. Each VCH shall be mounted and positioned within convenient reach of the vehicle operator's seated position and where the vehicle operator can easily read the VCH digital display and numeric/function keys. The VCH shall provide the following features and capabilities: The VCH housings shall be of rugged construction. the City prefers that the VCH housings be of a light color to minimize heat absorption by the VCH when exposed to direct sunlight.

Provide a digital display that can display a minimum of 200 alphanumeric characters concurrently. For example, displays with 5 lines of 40 characters each, or similar configurations, would be acceptable. The display shall be designed to be readily readable by the vehicle operators in lighting conditions ranging from bright sunlight to darkness and by vehicle operators wearing conventional (including both polarized and unpolarized) sunglasses. The display units shall be designed to minimize reflective glare from the front surface of the display and be clearly visible in direct sunlight. Operator-accessible controls for display brightness and contrast shall be included. Adjustment of display brightness and contrast over the useful range of settings shall be possible, but adjustment of display brightness and contrast to settings where the display is unreadable shall be prevented. The VCH display characters shall be at least ¼" in height. Larger VCH display characters shall be utilized as necessary to meet accepted human factors design criteria for personnel with 20/20 vision at the distance and angle seated vehicle operators would be from the VCH when the VCH is mounted in the vehicle. In the event the mounting location of the VCH varies between the types of vehicles in the City fleet, the character height shall be sufficient for the most-severe mounting location.

Provide at least 16 backlit numeric/function key buttons for vehicle operator entry of numeric data, commands, and control functions. Alternatively, a fewer number of context sensitive soft keys shall be provided for vehicle operator entry. If fixed function key buttons are proposed, at least 10 buttons shall be assigned to functions commonly required by the vehicle operators.

The functions assigned to each button shall be listed on the buttons or displayed immediately above or below the buttons. If the text describing the button's function is placed on the button, it shall be in a manner that precludes the text from being worn-off by repeated button pushes by the vehicle operators. The City shall be able to assign functions pertaining to their operations on the VCHs installed in the revenue vehicles. The buttons shall be durable, wear-resistant, and large enough for convenient vehicle operator selection. The buttons shall be spaced sufficiently far apart to minimize inadvertent selection of adjacent buttons. Color-coding of the buttons and/or areas around the buttons is preferred to help logically group buttons according to their assigned functions. The backlighting of the buttons shall be adjustable by the vehicle operator. An audible tone shall occur each time a button is pressed.

The VCH shall produce audible tones when a voice call is received and when a new data message is displayed on the VCH that requires the vehicle operator's attention. The audible tones shall be capable of being heard over normal bus ambient noise levels. The audio output level shall be adjustable by the vehicle operator within a restricted range that prevents audio output from being disabled.

The VCH shall be 100% solid state.

7.15.2.2 Hidden Microphone

The Contractor shall provide and install a hidden microphone on each bus that will support covert monitoring. The Contractor shall propose a mounting location for the hidden microphone that minimizes the background noise and that allows for good voice reception from the vicinity of the vehicle operator.

7.15.2.3 Intelligent Vehicle Control Units (IVCU)

The Contractor shall provide Intelligent Vehicle Control Units (IVCUs) for interfacing to the various initial and future on-board devices, for interfacing to the Contractor's proposed industry-standard vehicle area network (VAN), for performing processing related to the on-board functions (such as the onboard location and schedule/route adherence calculations), and for interfacing to the radio. IVCUs may be packaged as part of the VCH or as an independent device. The IVCUs shall store the vehicle ID and transmit the vehicle ID as part of the log-on sequence.

7.15.3 Vehicle Area Network

The Contractor shall provide and install a vehicle area network (VAN) on all fixed-route and commuter vehicles. This VAN shall be based on the latest versions of the Society of Automotive Engineers (SAE) J1708, J1587, and RS232 standards. The VAN design and protocol shall support the ultimate fleet size specified in Appendix D.

On revenue vehicles, the Contractor shall provide and install the VAN wiring, connectors, and the device access boxes required to interface the following devices via the VAN If it is not possible to upgrade or support any of the listed equipment, the contractors must state what the equipment is and why, in their proposal.

The VAN should support the following interfaces:

- Automatic Passenger Counter Equipment (fixed route and commuter coaches)
- Audio Announcement Equipment (fixed route and commuter coaches)
- Visual Next Stop Signs (fixed route coaches)
- Engine and transmission monitoring and diagnostic systems

The proposal shall define the types of wiring and connectors proposed for the J1708/J1587 VAN. The proposal shall describe the Proposer's plans and commitments for on-board products that will meet NTCIP standards and how the proposed TIN equipment could be upgraded in the future to meet these standards.

7.15.3.1 Wireless Connection to/from Vehicle Area Network

The VAN shall have the capability of wirelessly connection to the TIN using multiple wireless technology systems and select the fastest and/or most cost effective options based on user defined parameters. The VAN shall seamlessly switch between the various wireless connections options without requiring driver or user intervention. The VAN shall also include "store and forward" functionality in the event no wireless connection can be made. This function shall allow data to be stored in a queue and be sent to the TIN once a wireless connection is reestablished. The wireless connection shall not interfere with existing 802.11B wireless systems at SCT including the CCTV (Channel 1) and UFS (Channel 11) systems.

7.15.4 Other Vehicle Wiring and Connectors

In addition to the J1708 VAN specified above, the Contractor shall provide and install all other vehicle wiring and connectors required for the Contractor-provided equipment and for interfacing to the existing vehicle equipment listed in these Specifications. All cables shall have a woven braid harness covering and shall adhere to the guidelines and requirements of the SAE J1455 and SAE J2202 standards.

All wiring in buses shall be properly grounded and protected from chafing. Grommetting shall be used in all holes used by the Contractor to minimize cable damage due to chafing. All wiring exposed within the passenger compartment of any bus shall be armored, isolated, and protected when going through drilled holes, through bulkheads, and within brackets. Wiring which transverses the engine compartment bulkhead must pass through a bulkhead fitting.

All connectors and cables shall include appropriate environmental seals to ensure that they are water resistant. Cables shall be supported at least every five (5) feet with insulated clamps, and maintenance service loops shall be provided. Connectors shall be assembled according to the

guidelines in SAE J2030 and J2202. All connections shall be crimped securely. Cable designs for the vehicles shall minimize exposed cabling wherever possible. Cabling that must pass through the passenger area of the bus (such as for APCs) shall be concealed behind panels. All vehicle wiring designs shall be submitted to the City for approval prior to installations.

7.15.5 Other Device Interfaces
The MDT shall also be interfaced to a number of other on-board devices that do not reside on the vehicle area network. The Contractor shall provide the input capabilities required to connect these devices to the TIN on-board equipment. The types of equipment to be interfaced are as follows:
- Door sensors (status contacts)
- Wheelchair lifts/ramps (status contacts)
- Headsigns – where existing equipment has an RS232 interface
- Traffic signal coordination (priority) equipment (status contacts) (Future)
- Video recording system
- Two spare RS232, J1708, and status contact inputs.

7.15.6 Power Off Delay Timer
The revenue and non revenue vehicle equipment shall remain powered on for a configurable time period that is initially set to 60 minutes after the vehicle's ignition is turned off. It shall be possible to reconfigure the power off delay timer to a new time period without touching each vehicle. Time periods ranging from immediate power off up to at least 4 hours delay shall be supported. This is to enable the TIN to off-load all collected data at the end of the day and to allow for layover periods at the end of a run. It shall not be necessary for the vehicle operators to log on again or take any other actions when the vehicle's engine is restarted within the above time period.

7.15.7 GPS Receivers and Antennas
The Contractor shall provide the Global Positioning System (GPS) receivers, antennas, and all necessary connections required to monitor the locations of all TIN-equipped vehicles. The GPS receivers shall be parallel (dedicated channel) tracking receivers, capable of simultaneously tracking at least eight GPS satellites in the best geometry for a position fix, and providing time signals to the Contractor-provided on-board equipment. The GPS receivers shall report latitude, longitude, speed, time, direction of travel, and satellite tracking station to the IVCU.
The GPS receivers shall support all Block I, Block II, and Block IIR GPS satellites that are operational at the time the GPS equipment is delivered. The minimal differentially-corrected positional accuracy shall be five meters. The accuracy of GPS location tracking functions shall be unaffected by GPS "week number rollover" events. Velocity measurements provided by the GPS equipment shall be accurate to within 0.1 meters/second when operating in the clear (non-selective availability) mode.
The GPS receivers shall have a cold start time to first fix (TTFF) solution time of two minutes or less and a signal reacquisition time of 15 seconds or less (following the loss of the signal for at least one minute). The GPS equipment shall include multi-path rejection capabilities to eliminate spurious signals caused by reflections off of buildings and other structures.
The GPS receiver shall store the GPS almanac in non-volatile RAM. The GPS antennas shall support the number of channels tracked by the GPS receivers and shall be low-profile units housed in rugged, weather tight, roof-mounted enclosures.

7.15.8 Additional Navigation Equipment
Proposals shall identify and describe all navigation equipment that is included in the offering as a supplement or backup to GPS. The proposal shall state if this equipment is required to meet positional accuracy requirements or may be required pending further analysis. Equipment that is required shall be included in the base offering. Equipment that may be required pending further analysis shall be included as an option.

7.15.9 Emergency Alarm Switches
The Contractor shall install new emergency alarm switches on all TIN-equipped revenue vehicles. All installed trigger devices shall be identical. The switch configuration and location for new

emergency alarm switches shall be subject to the City approval. The emergency alarm switch shall provide two contacts or relays: one for the TIN IVCU emergency alarm, and the second to provide a signal to video camera system that the emergency alarm has been activated.

7.15.10 Destination Sign Interface
The TIN shall provide interfaces to existing destination signs in all fixed route TIN equipped vehicles that have external control interfaces installed, or that can be upgraded by the Contractor to support the required J1708 or RS232 interface. The Contractor-provided interface shall enable the signs to be automatically controlled by the TIN. The City requires that the interface approach not permanently disable the manual control panel functions of the destination signs.
The Contractor shall provide interfaces and control logic for destination signs on all TIN equipped revenue vehicles, regardless of whether the bus contains a controllable sign. For revenue vehicles containing controllable destination signs, the Contractor shall install all required modifications and wiring necessary to control all of the signs, including revenue vehicles with multiple destination signs. The existing destination sign equipment for the City fleet is listed in Appendix D. The Contractor shall be responsible for reviewing the list and inspecting the fleet to ensure that the proposed system will correctly interface to the existing equipment.

7.15.11 Farebox Interface
The on-board TIN equipment shall interface with existing GFI Odyssey fareboxes and Cubic fare system which are installed on all fixed route and commuter vehicles. The Contractor shall install all required wiring, including but not limited to J1708 and/or J1587 and hardware necessary for connection to the fareboxes.

7.15.12 Automatic Passenger Counting Equipment
The TIN system shall include all on-board hardware and software required to implement full APC functionality on all TIN-equipped fixed-route and commuter buses. The on-board APC equipment shall include all sensors, wiring, cabling, mounting hardware, and labor required to install the APC equipment in the specified vehicles and configure it to meet required counting accuracy requirements.
The sensors to detect passenger boarding and alighting shall not use step-treadle technology, but shall use infrared or other similar sensors that have a high level of reliability and are easily serviced. The APC sensor technology shall be capable of accurately counting passengers simultaneously boarding and alighting from the same door. The APC equipment installed and configured on each vehicle type shall have a demonstrated accuracy of 95% or better under controlled testing.

7.15.13 Odometer Interface
The Contractor shall interface to the odometer on all TIN-equipped vehicles. This interface may be used for navigation, as necessary by the Contractor's design, and shall also support the collection of accurate mileage data for revenue vehicles.
The Contractor shall provide and install sensors as necessary to provide the output signals required by the Contractor's on-board equipment. These sensors provided by the Contractor shall measure distance to within ±3% of the actual distance traveled by the vehicle and shall include any additional hardware, software, and services required for implementation on all TIN-equipped vehicles.

7.16 Audio Announcement, Visual Display Recording and Maintenance Systems

7.16.1 Automatic Audio Announcement Equipment
The Contractor shall supply and install fully automatic audio announcement equipment for all fixed route and commuter vehicles.
The equipment to be supplied by the Contractor shall enable high-quality, digitally recorded information, including music, to be automatically announced to passengers. Audio announcements of up to 20 seconds in length shall be supported. The equipment shall be capable of CD quality digital audio, or better.

Both the on-board vehicle equipment and the software required to generate, modify, and load the audio messages into the on-board vehicle equipment shall be supplied and installed by the Contractor. This shall include any hardware or software required for the system to communicate wirelessly with the TIN network. The system must allow the City the option of uploading audio file manually or via a TIN - VAN wireless connection.

The City prefers that all such systems provided be fully integrated with the TIN database for access to data on routes, trips, stops, etc.

7.16.2 Audio Announcement Recording and Maintenance Equipment

Contractor shall provide the City with one set of all equipment necessary for recording and fully maintaining audio announcements for the equipped vehicles. The recording and maintenance equipment shall include all hardware and software components (type-to-voice software) necessary to create audio announcements, define conditions for which announcements are to be triggered, revise and update existing sets of audio announcements, and download sets of announcements to appropriate vehicles. The audio announcement hardware and software to be provided for recording announcements shall enable the City to incorporate commercially available music and sound effects, in industry standard formats, into public service, advertising, and similar announcements. Supported digital audio quality shall be CD audio quality or better.

7.16.2.1 Audio Announcement On-Board Storage

All the audio announcements required for all the City fixed routes and schedules shall be stored in non-volatile memory in the on-board automated announcement equipment. It shall not be necessary to update or download the audio announcement and route data to the vehicles except when the City updates their schedules and routes. The method used for downloading new message and route data shall allow all vehicles in the City fleet to be updated with new data within a few hours, so that the change-over may be accomplished after vehicles return to the garages at the end of their service day and prior to the beginning of their next service day. No more than 50% of the memory provided on-board the vehicles for storing the digitally-recorded announcements shall be required for recording the next stop, major intersection, and key transfer point announcements. The remaining 50% of installed memory shall accommodate future expansion and the storage of promotional, public service, and advertising announcements.

7.16.2.2 Automatic Volume Adjustments

The Contractor-provided equipment shall automatically monitor background noise inside the vehicle and adjust the audio announcement volume accordingly, so that audio announcements are made at appropriate volume levels. Separate monitoring of the external background noise and separate adjustment of the external audio level shall be supported for external announcements. The bus operator shall not be able to enable/disable the announcements and adjust the system's volume within a usable range.

7.16.3 Audio Amplifiers

The existing public address amplifiers in the fixed route revenue vehicles shall be re-used, wherever possible. Amplifiers, if supplied, shall have less than 3% distortion. The equipment supplied shall meet or exceed all ADA requirements in 49CFR Parts 37.167 and 38.35.

7.16.4 Automatic Visual Display Equipment

The Contractor shall provide and install fully automatic visual announcement display equipment on all fixed route and commuter TIN-equipped revenue vehicles. 60 ft buses shall have two displays. The equipment to be provided by the Contractor shall enable information to be automatically displayed to passengers on-board the revenue vehicles. Specific functional requirements for this equipment are contained in Section 2. The equipment supplied shall meet or exceed all ADA requirements in 49CFR Parts 37.167 and 38.35. Means shall be provided to allow messages to be flashed, scrolled, and displayed in single frame mode. All display time periods, delays, and rates shall be adjustable. Automatic centering of messages shall also be supported.

The Contractor shall provide and install the visual display equipment in locations on the revenue

vehicles that are approved by the City. The display unit shall not interfere with the bus operator's view through the front or side windows. The visual display units shall be mounted so that all passengers on the bus can view the displays from seated and standing positions.

The visual displays shall be high-contrast displays that are clearly readable in the full range of lighting conditions found on the City revenue vehicles. The installed displays shall have amber characters and shall be clearly readable by passengers with 20/30 vision when the passengers are seated at the rear of the bus. The Contractor-provided visual displays shall be at least one line high by at least 19-characters wide and displays shall support character heights of at least three inches. Each LED shall have a brightness of at least 80 milli-candela at 35 degrees off-axis.

The audio visual displays shall also display Stop Requests. Contractor shall remove existing Stop Request signs.

7.16.4.1 Visual Display Maintenance Equipment

Contractor shall provide the City with one set of all equipment necessary for fully maintaining visual display announcements on the equipped vehicles. The visual display maintenance equipment shall include all hardware and software components necessary to develop and generate the displays, define when, where, and how the displays are to be presented, and download the display information to the appropriate vehicles. The visual display maintenance facilities shall support both text and graphic displays.

The maintenance and programming system for the on-board display signs shall have the capability of connecting with the TIN wirelessly through the vehicle area network outlined in Section 7.15.3. This wireless connection shall support the wireless update of stored messages, software updates and remote trouble shooting.

7.17 Vehicle Operator Training Hardware

The Contractor shall provide one (1) set of training equipment, for training revenue and non-revenue vehicle operators on the proper use and operation of the on-board vehicle equipment in a classroom environment. The training equipment shall be fully operational and shall be identical to the equipment being provided and installed by the Contractor in the City revenue vehicles. At a minimum, the on-board vehicle devices to be provided shall include a VCH, IVCU, radio(s), emergency alarm switch, covert microphone, speaker, and handset, with optional vehicle equipment added appropriate to each option purchased by the City. No Mobile Computer Terminal training sets are required. Each equipment set shall be mounted in a rigid frame that is suitable for temporary placement on a desktop and for use by the personnel being trained. The training equipment shall be configurable to fixed route, commuter, or paratransit operations based on user logon. Each configuration shall have a separate list of canned messages.

Proposals shall state the cost of each additional set of training equipment beyond the quantity specified above; the City shall have the option of purchasing additional sets from the Contractor at that price through the warranty period.

The Contractor shall provide all hardware and software required to interface to all the devices in each equipment set and to provide a realistic simulation of all operations, functions, and features of the equipment. The simulation equipment shall allow vehicle operators to be trained on the following operator functions:

- Logon and logoff sequences
- Requesting, conducting, and ending voice communications
- Use and meaning of all buttons, indicators/lights, menus, and any other information displayed on the VCH and radio equipment
- Sending, receiving, and responding to data messages The simulation hardware and software shall support the display of simulated messages and prompts from the TIN and TIN workstation users (i.e., dispatchers). Vehicle operators using this training equipment shall be able to respond to each of these messages and prompts and to receive proper and realistic responses to their actions. Both normal, expected vehicle operator responses and incorrect response scenarios shall be supported by the simulation.

- City instructors shall be able to define and modify typical text (canned and free form) data messages that TIN workstation users will send to the vehicle operators and to include these messages in the training scenarios. Convenient means shall be provided to allow instructors to control when simulated data messages are issued, so that the instructors can control the sequence and pace of the training and repeat simulated sequences as needed.
- Controlling optional equipment chosen by the City
- Displaying and controlling messages in the VCH message queue
- Understanding the meaning of and proper actions to be taken in response to all vehicle operator prompts and error messages displayed via the VCH; schedule and route adherence displays
- Emergency alarm and covert monitoring scenarios.

As an alternative to simulation capability, the training sets may communicate by radio with a selected dispatcher workstation and interact with the TIN in the same manner as an TIN-equipped vehicle.
Training equipment shall be tested as part of the factory testing and shall be delivered to the City in time for vehicle operator training.

7.18 Other Peripheral Devices
The Contractor shall supply any other peripheral devices or equipment required for the operation, software support, and maintenance of the proposed TIN.

7.19 Expandability
All expansion capacity defined in this RFP shall be satisfied within the existing enclosures by the addition of circuit boards only. All power supplies and chassis space for the expansion shall be supplied with the initial system. Expansion requirements shall include, but not be limited to, main memory, mass storage, and the ultimate device quantities.

7.20 Overload and Surge Withstand Capability
The Contractor shall ensure that all communications facilities and interconnections among components of the system are adequately protected from voltage overload and surge conditions (e.g., static discharge). The TIN shall operate under minor overload conditions, recover to normal operation after other overload conditions, and limit damage caused by other, more severe, overload conditions.
Facilities and interconnections requiring overload and surge protection at their interface to the system shall include telephone lines, network cables, antennas, and metallic cable runs between buildings.
The Contractor-shall provide on-board vehicle equipment that maintains normal operation under all operating conditions of the vehicles in which the equipment is installed, in accordance with the latest SAE J1455 guidance and requirements. This equipment shall be designed to withstand all vehicle transient voltage variations including load dump, inductive switching, and mutual coupling. On-board vehicle equipment shall be capable of operating in the presence of vehicle input voltage excursions of 18 VDC for up to 1.5 seconds for 12 VDC systems. The Contractor shall provide the necessary cable and component shielding to prevent any inductive switching and mutual coupling errors from being introduced over the I/O circuits and conductors.

7.21 Power Supply Requirements
The TIN shall operate with the following power inputs and the following conditions.

7.21.1 Uninterruptible Power Supplies
The Contractor shall provide uninterruptible power supply (UPS) units for all Contractor installed TIN workstations, console equipment, and all other TIN equipment. The City will provide UPS equipment for servers. Backup power requirements for all Contractor-supplied radio system equipment, both at the dispatch offices and at the mobile radio system base station sites, are

addressed in Section 12.

In the event of a power outage, the TIN shall remain fully functional for a 30-minute period. The UPS shall consist of multiple modular units rather than a single large-scale device. At a minimum, UPS units shall be supplied as follows:

- A UPS unit shall be provided for every workstation.
- LAN equipment (e.g., routers and hubs) and the GPS receiver shall be assigned to a UPS unit. Sufficient capacity shall be provided on one of the server UPS units to move the LAN equipment to that UPS if the LAN equipment UPS fails. A convenient means shall be provided to manually switch the LAN equipment to the alternate UPS unit.
- No single UPS unit failure shall result in the loss of all data or voice communications.

Each UPS unit shall meet the following requirements:

- The initial load on each UPS unit shall not exceed 60% of unit's capacity.
- The minimum UPS battery discharge time upon loss of utility power shall be 60 minutes, calculated at the 60% capacity specified above.
- Batteries shall be sealed, maintenance free, hot-swappable, lead acid batteries; special ventilation arrangements shall not be required.
- The UPS units shall provide surge protection from public power source surges. Surge energy rating shall exceed 450 Joules.
- A means for detecting and reporting UPS alarms to Dispatchers shall be provided.
- A means shall be provided to alert Dispatchers when primary power fails and, as a result, power is being provided by the UPS battery sources.
- Rack mounted

7.22 On-Board Vehicle Equipment

7.22.1 Power Supply
The power supply on board the City vehicles will be unconditioned 12 VDC. This voltage will normally vary between 11 VDC and 19 VDC, although larger voltage dips can be expected during engine startup. The voltage may drop effectively to zero for several seconds, under the most severe conditions.

All TIN mobile equipment shall be protected from damage resulting from power lead reversal and from over-voltage conditions (up to 200V) that could occur during maintenance operations or equipment failure (e.g., regulator failure).

The connection to the vehicle power supply shall be with a direct connection to the battery mains, via a dedicated circuit.

7.22.2 Hardware Protection
All fusing, switches, and surge protection necessary at all locations to protect the hardware supplied as part of this Specification shall be supplied by the Contractor.

7.22.3 Temperature/Humidity/Heat Load
All equipment provided under this RFP and located within the TIN central site, at the City dispatch offices, and at remote console locations shall operate over an ambient temperature range of 50 degrees F to 120 degrees F, with a maximum rate of change of 15 degrees F per hour and with relative humidity ranging from 20% to 80% non-condensing.

7.22.4 Acoustic Noise Level
The noise level of any equipment located in the equipment room shall not exceed 60 dbA three feet from the enclosure. The noise level of equipment located outside the computer room shall not exceed 50 dbA three feet from the enclosure. Sound-deadening enclosures shall be provided where necessary to meet these requirements.

7.22.5 General Construction Requirements
All TIN equipment shall be constructed in accordance with the following requirements.

7.22.5.1 Enclosures
All equipment enclosures shall meet the following requirements:

7.22.5.2 Finish
The enclosures shall be finished inside and out. All cabinet metal shall be thoroughly cleaned and sanded, and welds chipped to obtain a clean, smooth finish. All surfaces shall be treated to resist rust and to form a bond between the metal and the paint. The finish colors of all enclosures shall be decided jointly by the City staff and the Contractor.

7.22.5.3 Accessibility
Floor mounted enclosures shall have front and rear access to hardware and wiring. All cabinet doors shall be secured with keylocks and all locks shall be keyed alike.
Keys shall be removable in both the secured and unlocked positions. Moving assemblies within the enclosure, such as swing frames or extension slides, shall be designed such that full movement of the assembly is possible without bending or distortion of the enclosure or the moving assembly.

7.22.5.4 Cabling and Wiring
Cable entry shall be through the top, bottom, or back of the enclosure, such that no cables shall be visible from the front of the enclosure. All cables passing under raised floors shall be rated as NEC Class 2 Plenum cable and tested to NFPA 262-1985 Test for Fire and Smoke Characteristics of Wires and Cables to a maximum peak optical density of 0.5, a maximum average optical density of 0.15, and a maximum allowable flame travel distance of five feet.
Wiring within enclosures shall be neatly arranged and securely fastened to the enclosure by non-conductive fasteners. Wiring between all stationary and moveable components, such as wiring across hinges or to components mounted on extension slides, shall allow for full movement of the component without binding or chafing of the wire.
Except for fiber-optic cables, all wiring shall use copper conductors. Conductors in multi-conductor cables shall be individually color-coded.

7.22.5.5 Interconnections
All signal cabling between component units of the TIN and vehicle area network shall be supplied by the Contractor. The connectors shall be polarized to prevent improper assembly. Each end of each interconnection cable shall be marked with the cable number and the identifying number and location of each of the cable's terminations; this information shall agree with the drawings and be descriptive, so that maintenance personnel can easily identify which cables connect to which equipment. Each cable shall be continuous between components; no intermediate splices or connectors shall be used. Terminations shall be entirely within the enclosures.

7.23 Server Equipment Room Space
TIN servers and related equipment shall be installed in the "IT Server Room" at the City's Transit Maintenance Facility. The proposal shall be based on the following assumptions:
- For all cabling between the dispatch office and server equipment assume a required cable length of approximately 260 feet
- For all cabling between the maintenance office and server equipment room assume a required fiber cable length of approximately 1000 feet
- For all cable lengths determined as described above, as well as when recalculated after the final equipment arrangement is established, an additional 20 feet of length shall be added to the calculated length to accommodate the future repositioning of equipment within the rooms.

Proposers shall describe the space requirements for all TIN equipment to be installed at the central site equipment room, at the dispatch office, maintenance office, and remote console locations. The description shall include the approximate required square footage of the area required within each room and the power requirements for the TIN equipment.

SECTION 8
8.0 Configuration, Characteristics, and Availability
This Section describes system configuration requirements, presents the functions required to monitor and manage the TIN System hardware and software, and quantifies TIN availability requirements. The ability of the TIN to perform its specified tasks under normal conditions and under conditions of hardware and software failure is of paramount importance to the City.

8.1 System Configuration Requirements
The TIN shall accommodate the system configuration and network topology requirements described below and in other sections of this Specification. The proposal shall include a detailed system configuration block diagram illustrating the proposed equipment configuration.

8.1.1 TIN Test and Production Components
The TIN shall be configured to support 100% testing of new components and software prior to their use in production. To support this requirement, the Contractor shall supply sufficient fixed-end components to operate fully parallel systems for production and for testing. In addition, the TIN shall be configurable such that a subset of the TIN vehicles can operate in the test system. The test system shall also be capable of serving as an emergency backup to the production system with minimal reconfiguration effort.

8.1.2 System Configuration Major Elements
The TIN configuration shall include a local area network (LAN) interconnecting the following major elements:
- TIN application servers
- TIN data communications servers
- TIN online database servers
- Redundant radio system communications processors
- Dedicated information storage/retrieval server(s) (see the Information Storage Function and Information Retrieval Function subsections within Sections 2) Authorized Information Users shall have secure access to the data stored on the information storage and retrieval server(s) from remote locations via the City WAN. Authorized Information Users will include the City employees and outside agencies with interfaces to the TIN. The information storage and retrieval server(s) shall be isolated from the main TIN LAN such that Information User activity has no impact on the performance or security of the real-time TIN functions.
- 3 Local Dispatcher workstations
- Miscellaneous local and remote TIN User workstations
- Voice logger system
- Differential GPS receiver
- Backup and archive removable media storage devices
- The fixed route scheduling system
- The paratransit scheduling system
- Future external interfaces with outside agencies for the purpose of sharing information
- Four post rack
- One 48-port network switch

All interfaces to these external computer systems shall be secure and shall prevent unauthorized users and data traffic from impacting the performance or security of the real-time TIN functions.

8.1.3 LANs and Server/Device Interconnections
Local Area Networks (LANs) and other server and device interconnections shall be provided for:
- The exchange of data among servers for the purpose of executing on-line, off-line, and background functions
- The exchange of data among servers for the purpose of maintaining backup databases
- The exchange of server and device state information for the purpose of controlling the TIN configuration
- Access to peripheral devices including data radio equipment
- Any and all programming/configurations required for proper communication between all network equipment.

8.1.4 Backup Databases
A backup copy of all databases shall be maintained so that the TIN operation may continue in the event of server, device, and software failures. The backup databases shall be updated with the current contents of the primary databases, such that all changes to a primary database are also immediately made in the backup database.

8.1.5 Error Detection and Failure Determination
All servers, workstations, devices, and on-line and background functions in the TIN shall be monitored for fatal and recoverable errors. All errors shall be recorded for later review by the system administrator and shall be included in the error statistics displays and reports. Each type of error for each device (for example memory access violation, device reply time-out, or message checksum error, etc.) shall be recorded separately.

8.1.6 Redundant Server Failure Detection and Failover
Redundant server configurations shall detect all failure conditions that render a primary server inoperable (i.e., unable to perform its TIN functions) and shall immediately initiate failover to the designated backup server. Failure conditions that are detected for server failover shall include application and system software failures as well as hardware failures. Server failover shall fully and automatically restore all affected TIN functions within two (2) minutes of detection of the failure. Human intervention shall not be required to execute a server failover.

8.2 Availability
The TIN shall fulfill the following availability requirements:
- The TIN shall have a total calculated availability, including functional availability and hardware availability, of 99.97%. That is, the ratio of total time minus downtime to total time shall be equal to or greater than 0.9997.
- The failure of any single component, server, or device shall not render the system unavailable.

The following sections specify the proportion of system components that must be operational in order for the TIN to be considered available. Section 9.9, Availability Test, describes the requirements, responsibilities, and definitions for an availability test that shall demonstrate conformance with the availability criteria described in this section.

8.2.1 Functional Availability
All TIN functions, including those of the radio system shall execute as specified, without degradation in response times, for the system to be considered available.

8.2.2 Hardware Availability
For the TIN hardware to be considered available, the following CAD/AVL system, radio system interface equipment and vehicle equipment requirements must be met. For purposes of the availability testing, software and firmware in the radio system interface equipment and on-board

vehicle equipment will be considered as part of the Vehicle On-Board System. Communications equipment provided by others for communicating between equipment sites will not be included when determining TIN availability.

8.2.2.1 CAD/AVL System Availability
The following minimum complement of TIN hardware must be operational for the system to be considered available:

- Sufficient servers, with all main memory, processor interconnections, mass storage, and peripheral device access to execute all TIN functions at the scheduled periodicities and at the required response times
- Sufficient LAN facilities to execute all TIN functions at the scheduled periodicities and response times

A dispatcher console shall be considered operational only if it is able to provide all required functionality to support both fixed-route and paratransit operations.

8.2.2.2 Radio System Availability
For the purposes of availability analysis, the following minimum complement of Contractor supplied hardware must be operational for the radio system to be considered available:

- Inter-site communications equipment for voice and/or data communications on all but one channel with all base stations (i.e., only one channel may be unavailable)
- Communications equipment provided by others (if applicable) for communications between the Dispatch offices and the base station sites will not be considered for equipment availability
- Data channel radio equipment at all sites.

8.2.2.3 Vehicle On-Board System Availability
For the TIN to be considered available, no more than three of the TIN-equipped revenue and non-revenue vehicles in the City fleet shall have all Contractor-provided on-board equipment (including the Contractor supplied radio interface, other on-board devices, and VAN and other inter-device wiring) shall not be fully operational. TIN on-board vehicle equipment shall be considered operational when it can support all required functions while exceeding all minimum acceptable performance requirements.

For availability calculation purposes, a vehicle with a failure of Contractor-provided TIN equipment shall be considered unavailable from the time the failure is noted by a vehicle operator until the vehicle returns to a garage at the end of that vehicle's service day. An exception to this rule will be allowed in cases where the failure is intermittent and the failing operation is successfully performed in no more than two retries. In these cases, one hour of unavailability shall be counted against each affected vehicle beginning from the time that the intermittent failure is noted by the vehicle Operator.

8.2.3 Individual Device Availability
In addition to meeting the system hardware availability requirements, each device, including servers, shall individually exhibit a minimum calculated hardware availability of 99.5%. Also, each device shall experience no more than one failure during the course of the Availability Test.

SECTION 9
9.0 Inspection, Test, and Availability
All materials furnished and all work performed under this RFP shall be inspected and tested. Deliverables shall not be shipped until all required inspections and tests have been completed, all deficiencies have been corrected to the satisfaction of the City, and the hardware and software has been approved for shipment by the City.

Should any inspections or tests indicate that specific hardware, software, or documentation does not meet the Specification requirements, the appropriate items shall be replaced, upgraded, or added by the Contractor, at no cost to the City, as necessary to correct the noted deficiencies. After correction of a deficiency, all necessary retests shall be performed to verify the effectiveness of the corrective action.

9.1 Inspection
Access to the Contractor's facilities while system manufacturing and testing are taking place and to any facility where hardware or software is being produced for the TIN shall be available to the City representatives at any time.

The City representatives shall be allowed to review and verify the functional implementation of all operational TIN software in an informal, hands-on demonstration of the operation of each software function, even though software debug and integration activities may not have been completed. No special documentation is required to support these informal software demonstrations. Inspections performed by the City will include visual examination of hardware, cable dressings, and equipment and cable labeling. Contractor documentation may also be examined to verify that it adequately identifies and describes all hardware and software, and is in accordance with the documentation requirements in Section 11.

The City shall have the right to inspect the Contractor's hardware and software quality assurance standards, procedures, and records that are applicable to the TIN. Documents identified in the approved hardware and software quality assurance plans shall be available for inspection.

The inspection rights described above shall not apply to subcontractors supplying standard items such as computer or peripheral equipment and third-party software products. Standard hardware and software products shall be tested as part of the Functional Performance Test (section 9.4.2). However, inspection rights shall apply to subcontractors that are developing new hardware or software for inclusion in the TIN.

9.2 Test Plans and Test Procedures
Test plans and test procedures for both factory and field tests shall be provided by the Contractor and approved by the City in order to ensure that each factory and field test is comprehensive and verifies all the features of the devices and functions to be tested. Test plans and test procedures for application software shall place special emphasis on comprehensively testing each function and feature, checking error conditions, and documenting and verifying the validity of all simulation techniques used.

The test procedures shall be modular to allow individual test segments to be repeated as needed. Together, test plans and test procedures shall provide a two-step description of each factory and field test. Test plans shall provide a high-level functional summary of the methods used for verifying each function and feature of the hardware, software, and firmware being tested. Test procedures shall include step-by-step procedures associated with each test. All test plans and test procedures shall be submitted to the City for approval prior to testing and shall be subject to the approval process as defined in Section 9.9.

9.2.1 Test Plans
The test plans for factory and field tests shall be submitted to the City with sufficient time to allow for review and approval before Contractor submittal of the associated test procedures. The following information shall be included in the test plans, but not limited to:
- Test schedule
- Responsibilities of the City and Contractor personnel
- Record-keeping procedures and forms
- Procedures for monitoring, correcting, and retesting variances

- Procedures for controlling and documenting all changes made to the TIN after the start of testing
- Block diagram(s) of the hardware test configuration, including Contractor-supplied equipment, equipment supplied by the City (if any), radio equipment, revenue and non-revenue vehicle equipment, external communication channels, and any test or simulation hardware
- A list of individual tests to be performed, the purpose of each test segment, and references to the applicable sections of the Specification
- Identification of special hardware, software, tools, and test equipment to be used during the test
- Identification of test personnel required for the test
- Techniques and scenarios to be used to simulate ultimate system sizing, processor utilization, and performance, especially during the peak loading test
- Copies of any certified test data (e.g., environmental data) to be used in lieu of testing for certain approved equipment.
- Techniques and scenarios to test data security

9.2.2 Test Procedures

Test procedures that are based upon, and consistent with, the approved test plan shall be submitted to the City for approval at least two weeks prior to testing. Test procedures shall be submitted only after the test plan has been approved by the City. Fully approved factory and field test procedures shall be submitted to the City prior to the commencement of the respective testing. Testing shall not commence without approved test procedures.

The City will only approve test procedures if they are inclusive and thoroughly test each TIN component, both independently and collectively. All test procedures shall be indexed back to the section of the specification that prescribes the performance attributes or requirements being tested. Test procedure documents shall include the following items:

- Function or feature to be tested
- Purpose of each test segment
- Set-up and conditions for testing
- Descriptions of all simulation tools and techniques used during the test
- Detailed, step-by-step procedures to be followed
- All inputs and expected results for each test segment.

9.3 Test Records

Complete records of all factory and field test results shall be maintained by the Contractor. The records shall be keyed to the steps enumerated in the test procedures. The following items shall be included in test reports provided by the Contractor upon completion of each test:

- Reference to the appropriate section of the test procedures
- Test results for each test segment, including a passed/failed indication and any modifications made to the procedures during the test
- Identification of the Contractor's test engineer and the City representatives witnessing the test
- Date of the test
- Provision for comments by the City representatives
- Copies of any variance reports generated
- System logs or printouts saved as part of the test.

9.3.1 Reporting of Variances

A variance report shall be prepared by either Contractor personnel or the City representatives each time a deviation from Specification requirements, test procedures, or the Contractor's design is detected during any TIN factory or field testing. The report shall include a complete description of the variance, including the following items:

- A sequential identifying number assigned to the variance

- The date and time the variance was first discovered
- Variance classification (Priority 1-4, see below)
- Variance status (open, ready for retesting, closed, etc.)
- Appropriate references to the test procedures, Specification, or design documentation
- A description of the test conditions at the time the variance was detected
- Identification of Contractor and the City witnesses
- A sign-off by both the Contractor and the representatives of the City when the correction to the variance has been verified
- Possible causes

Variances shall be classified by the City. Each variance shall be assigned to one of the following four classes, depending on its severity:

Priority 1: Critical – a failure that results, or would result, in the City being unable to use critical functions of the TIN to an extent that may affect the safety of the public and/or the City personnel. For example, a failure resulting in a complete loss of data communications and/or an extended inability to locate vehicles would be considered a Priority 1 variance.

Priority 2: Major – indicates a deficiency of lesser severity than a Priority 1 that does not substantially reduce the capability of the TIN to accomplish its primary system functions (e.g., vehicle communications and AVL). Priority 2 variances indicate functional and/or performance deficiencies, but the TIN is still capable of accomplishing its primary system functions with a satisfactory degree of safety and effectiveness. For example, deficiencies in performance, such as response times, may be considered Priority 2 variances. Also, Priority 1 variances for which an acceptable workaround has been established may also be reassigned to Priority 2.

Priority 3: Minor – a failure of a minor function, minor performance issues, and documentation errors. Priority 2 variances for which an acceptable workaround has been established may also be reassigned to Priority 3.

Priority 4: System Design Improvements – the City requests for improvements to the implementation of specific functions based on the witnessing of those functions during testing. For example, a request to alter a display form design in order to improve efficiency and/or improve adherence to functional requirements. Variances of this priority are more likely to occur if design descriptions provided during PDR and FDR do not adequately describe the implementation in sufficient detail.

9.3.2 Disposition of Variances

Priority 1 and 2 variances found during factory testing shall be corrected and approved by the City prior to shipment of the TIN. Priority 1 and 2 variances found during field-testing shall be corrected and approved by the City prior to production phase-over of any portion of the system.

The TIN shall not be used in production operations until all Priority 1 variances have been corrected and approved by the City. Priority 1 variances that occur during phase-over shall require the cessation of any production use of the system. the City may choose to waive these restrictions in specific instances, depending on the nature of the variances. Priority 2 variances that occur during phase-over shall be corrected and approved by the City prior to the completion of phase-over.

Priority 3 and 4 variances may be corrected at a later time during the testing and implementation activities at the approval of the City, but shall be resolved prior to the start of the Availability Test.

9.3.3 Tracking of Variances

The Contractor shall document actions taken to correct variances. Sufficient information shall be provided to enable the City representatives to determine the need for retesting the function, for testing interaction with any previously tested function, and for updating appropriate documentation as a result of the corrective action. Variance corrections that would result in a change to an approved document must be approved by the City prior to their implementation by the Contractor. Variance reports shall be completed and closed when the Contractor and the representatives of the City acknowledge, by signatures, correction of the variance. Variance reports shall be available to the City at all times and shall be submitted by the Contractor to the City at the start of

the Availability Test.

The Contractor shall maintain and periodically distribute (frequency of distribution based on testing activity) a variance summary that lists for each variance, the variance number, a brief description of the variance, date opened, variance class, current status, date closed (if closed), and a brief description of the resolution of the variance. Closed variances shall be deleted from the variance summary after the closed status and resolution of the variances have been reported on one version of the variance summary that has been formally issued and distributed to the City. The Contractor shall distribute the current variance summary at the completion of each test, just before a new test, and when requested by the City.

The variance summary shall be distributed to the City in both printed and PC-readable electronic formats. The City reserves the right to conduct independent variance testing and require the contractor to correct any variances identified as part of this effort.

9.4 Factory Tests

Factory tests shall demonstrate correct operation of all TIN functions using the fully integrated TIN, including TIN fixed route, commuter and paratransit vehicle equipment (see below). All factory test results shall be witnessed, verified, and approved by the City.

The City prefers that all factory tests be performed "over-the-air" using Contractor-supplied test radio equipment. Alternatively, the factory tests may be conducted by emulating the radio system data transport. If emulation is used, then the Contractor shall provide a means to simulate and control data communications error rates during the testing. TIN equipment shall not be shipped until all factory tests are completed to the satisfaction of the City.

The factory test configuration shall include all dispatch office equipment and all other local and remote console equipment, all servers and all communication control equipment, a complete set of on-board vehicle equipment for at least eight (8) revenue vehicles (four fixed route, three commuter, and one paratransit) and one mobile computer terminal. Each set of vehicle equipment shall include all equipment and interfaces supplied by the Contractor under the TIN project, including any optional equipment selected by the City for inclusion under this project. The factory test configuration shall also include all test equipment required to simulate data signals to and from devices supplied by others or already installed on City vehicles, such as wheelchair lift/ramps, destination signs and vehicle mechanical alarm signals.

All equipment that will be supplied by the Contractor, but not exercised as part of the factory test configuration shall be tested using standard manufacturer's testing procedures and criteria. This testing may be conducted at another location, but the manufacturer's test results shall be supplied to and approved by the City prior to the start of the factory test and the City representatives shall have the opportunity to witness these tests.

Microwave (if applicable) and common carrier interconnections between the TIN network controller and the fixed base station radio sites may be simulated. Testing of backup power systems and fixed-end antennas is not required as part of the factory test.

A comprehensive simulation test of AVL functions shall be performed as part of the Functional Performance Test using the actual City service area base maps and all route and map overlays. The simulation testing shall include playback of previously recorded AVL data associated with a minimum of two (2) vehicles simultaneously traversing a set of actual routes. The previously recorded AVL test data shall include all patterns that a vehicle could expect to encounter (e.g., on/off schedule, on/off route, etc.). The simulation test of AVL functions shall exercise vehicle subsystems and not just the fixed-end components. For example, an acceptable approach would be to simulate the GPS data feed to the vehicle subsystems that are being staged at the factory test.

Communications facilities for supporting communications between the TIN at the Contractor's factory and the City local systems, if needed by the Contractor for implementation and testing, shall be supplied by the Contractor. Testing of data exchanges shall be conducted as part of the factory testing. Tests of data exchanges that are not required in real time (e.g., the quarterly route updates) may be conducted using suitable storage media for transport of the test data.

The following conditions must be satisfied prior to the start of the factory tests:
- All applicable hardware and software engineering design changes shall be incorporated into the TIN

- TIN documentation, including drawings, list of deliverables, software functional description document, factory test plans and test procedures shall have been reviewed and approved by the City
- All action items related to document approval, system performance, and test simulation techniques shall be resolved

All testing hardware, software, and special test and calibration equipment required to demonstrate the acceptable operation of the TIN, including radio communications with the on-board vehicle equipment, communications control features, and simulation of processor loading based on the ultimate system size and the conditions defined in Appendix E, shall be provided by the Contractor. The Contractor shall not substitute equipment and software during factory tests without prior the City authorization.

The factory tests shall be considered successfully completed only when all tests have been performed, all variances have been resolved to the satisfaction of the City, all test records have been issued to the City, and the City acknowledges, in writing, successful completion of the factory tests.

The factory tests shall consist of the following:
- A Contractor-performed dry run of the factory tests
- A Factory Functional Performance Test
- Unstructured testing by the City
- A System Stability Test.

9.4.1 Dry-Run Testing

Prior to the start of the Factory Functional Performance Test, the Contractor shall conduct a complete and formal dry run of the entire Factory Functional Performance Test and System Stability Test to verify that the TIN is ready to be tested by the City. The Contractor shall follow the approved test plan and procedures and record and correct all variances found during the dry run testing, including test procedure errors.

Written certification that the dry run has been successfully completed and a report identifying the variances found and resolutions implemented shall be provided to the City by the Contractor at least one week prior to the start of the Factory Functional Performance Test. At the option of the City, a City representative may witness and participate in all, or portions of, the dry run testing.

9.4.2 Factory Functional Performance Test

The Factory Functional Performance Test shall completely verify that all the specified and Contractor-proposed features and functions of the TIN hardware, software, and firmware have been properly designed and implemented. The Contractor shall conduct the tests. City representatives will witness all tests and the City representatives may perform the hands-on actions of the test procedures, at the City discretion. If the City elects to perform the hands-on actions of the test procedures, knowledgeable Contractor representatives shall be present at all times to assist the City representatives with the testing.

The following items, as a minimum, shall be included in the Functional Performance Test:
- Inspection of all equipment for conformance to drawings, specifications, and applicable standards, and for satisfactory appearance
- Testing of the proper functioning of all hardware by thoroughly exercising all devices, both individually and collectively
- Testing of the proper functioning of all software and firmware features and functions, including test cases with normal and exception data
- Testing of the proper functioning of all voice and data communication features and facilities and all communications network control functions, if applicable
- Testing of all revenue and non-revenue vehicle functions. Input and output signals from devices supplied by others or already installed on the vehicles shall be simulated if the City cannot provide actual devices for testing.

- Simulation testing of AVL functions using the City's actual map and database information for the routes that will be traversed
- Verification of all data transfers to the appropriate the City databases
- Testing of all user interface functions
- Simulation of hardware failures and failover of each TIN device that has a backup unit
- Verification that spare capacity and ultimate sizing requirements have been met, including all expansion requirements
- Verification of the accuracy of the system performance monitoring software
- Verification that the processor loading and system response time requirements have been met while exercising all Contractor-supplied software and performing functions as delineated in Appendix E
- Verification of device and system recovery from AC power failures
- Verification of all reports provided with the system, including ad hoc reports
- Testing of the Bulk Data Transfer function.
- Testing of the interface to RouteMatch and scheduling system
- Testing of failure modes
- Testing of Passenger Information System
- Testing of the emergency alarm

If City representatives believe the quantity and/or severity of the TIN variances warrant a restart of the Factory Functional Performance Test, the test shall be halted, remedial work shall be performed, and the complete test shall be rerun at a time agreed upon between the Contractor and representatives of the City.

9.4.3 Unstructured Testing
Periods of unstructured testing shall be permitted for the City representatives to verify proper operation of the TIN under conditions not specifically included in the approved test procedures. Unstructured testing shall be conducted in compliance with the following conditions:
- A minimum of 25% of the time allotted for each test segment shall be reserved for unstructured exercising of the TIN by City representatives.
- The Contractor's test representative shall be present and the Contractor's other technical staff shall be available for consultation with City representatives during unstructured test periods.
- All simulation software and hardware, test cases, and other test facilities used during the structured portions of the factory test shall be made available for City use during unstructured testing.
- Unstructured testing shall be allowed, at City discretion, at the end of each structured test segment and at the end of the Functional Performance Test.

9.4.4 System Stability Test
The stability of the TIN hardware and software shall be tested after the Factory Functional Performance Test has been successfully completed. All TIN functions shall run concurrently and all Contractor-supplied equipment shall operate for a continuous 48-hour period. All Priority 1 and 2 variances that have been detected must be corrected prior to the start of this test. The System Stability and Availability Test shall assure the City that the TIN is free of problems caused by interactions between software and hardware while the TIN is operating as an integrated whole. The City will not accept the TIN for shipment if any unexplained restarts or failovers have occurred. Furthermore, the City is under no obligation to accept the TIN for shipment if there are uncorrected hardware or software problems. The test will be extended by 24-hour increments until these requirements are satisfied.
The test procedures for this test shall allow for both structured and unstructured testing with procedures based on the User Manuals.

9.5 Field Performance Test

Before field-testing begins, the capability of the City to purchase maintenance contracts for all equipment shall be confirmed by the Contractor and certified to the City. If any updates or maintenance is necessary for the City to procure maintenance contracts, the Contractor shall immediately perform the necessary work.

The Field Performance Test shall be conducted after the TIN is installed. However, all of the TIN mobile equipment need not be installed prior to the start of this test. All variances shall be corrected prior to the start of the test.

The purpose of the Field Performance Test is to ensure that the TIN, as installed in the field, works properly as a fully integrated and installed system. This testing shall encompass the full range of TIN functionality; however, it shall concentrate on areas of TIN operation that were simulated or only partially tested in the factory and areas where variances were found during factory testing. Other test areas may be repeated as necessary to ensure the proper functioning of the complete TIN.

The Contractor shall be responsible for conducting the Field Performance Test. City representatives will witness all tests and may perform the hands-on actions of the test procedures, at the City discretion. If the City elects to perform the hands-on actions of the test procedures, knowledgeable Contractor representatives shall be present at all times to assist the City representatives with the testing.

9.6 Communication Coverage Test

A Communication Coverage Test shall be conducted over the entire the City service area in order to verify that the communication option provided by the Contractor is sufficient to enable the TIN to meet all functional and performance requirements of this RFP. The test shall demonstrate that the TIN will provide reliable communications coverage and performance for two-way voice and data transmission at all outdoor locations throughout the required coverage area.

9.6.1 Coverage Test Schedule

The Communication System Coverage Test shall commence after the TIN communication equipment is installed and tested at the City. The test plans and procedures to be followed during the Communication System Coverage Test shall be developed by the Contractor and submitted to the City for approval as part of the factory and field test plan and procedure documents. Coverage test criteria and procedures shall comply with the requirements specified in Section 9.6.2.

9.6.2 Coverage Test Criteria

Communication coverage shall be comprised of two aspects:

- Channel Performance Criterion, the specified design performance level in a faded channel
- Coverage Reliability, the probability of achieving the desired CPC over the defined service area

The Channel Performance Criterion or data message quality, shall be the Message Success Rate (MSR), the percentage of attempted data messages that are successfully received within a defined geographic sample area. Message Success Rate is a measurable and objective quantity. The Message Success Rate shall be applicable to both the inbound (uplink) and outbound (downlink) paths. The Channel Performance Criterion goal shall be 95% Message Success Rate within two or fewer application-level retries.

The service area to be considered in this case shall be the Santa Clarita Transit service area. The coverage reliability goal shall be 95% area coverage of this service area.

9.6.3 Coverage Test Procedures

The objective of the Communication System Coverage Test is to provide a baseline and to determine the overall reliability of the system. The test shall conform to industry accepted methodology standards and shall emulate actual system operation with test data messages on both the inbound (uplink) and outbound (downlink) paths. The test shall be accurate, repeatable,

and statistically valid (i.e., data collected at a statistically significant number of random test locations, uniformly distributed throughout the service area).

The data coverage test shall incorporate a drive route that passes through equal-sized grids throughout the service area. The number of grids shall be sufficient to provide a 99% confidence that the results are within 2% of the coverage goal. Within each grid (or sample) there shall be a sufficient number of both inbound and outbound test data messages (sub-samples) to provide a 99% confidence that the results are within 2% of the message success rate goal. The Contractor shall show by analysis the number of samples (grids) and sub-samples (test messages) required to provide a statistically valid data coverage test.

In the event that some of the defined grids are found to be inaccessible during the course of the data coverage test, those grids shall be discarded and not considered to either pass or fail the test. In addition, in the event that some grids must be discarded, the number of grids actually tested shall still meet the requirements for statistical validity as defined above.

9.7 Mini-Fleet Test

Following the successful completion of the Field Performance Test and the Communication System Coverage Tests and correction of all variances, a comprehensive test of the TIN shall be conducted with a small subset of the City fleet.

This test shall be conducted using eight (8) revenue vehicles (4 fixed route, 3 commuter, and one paratransit vehicles) and two mobile computer terminals installed in supervisor vehicles. For this mini-fleet test, the vehicles shall be equipped with all of the on-board equipment to be interfaced to the TIN. The vehicles shall all be simultaneously operated in actual and simulated revenue service to fully test schedule and route adherence, AVL, voice and data messaging, emergency alarm processing, and the other TIN equipment and functions under actual service conditions.

The test fleet may be operated on a selected subset of the routes, provided these selected routes encompass the entire service area and will allow testing under all of the operational and functional conditions expected to be encountered during the service day and throughout the entire service area. Selection of test routes shall be subject to the City approval.

The following items, as a minimum, shall be included in the Mini Fleet Test:

- Testing of the proper functioning of all hardware by thoroughly exercising all devices, both individually and collectively
- Testing of the proper functioning of all software and firmware features and functions, including test cases with normal and exception data
- Testing of the proper functioning of all voice and data communication features and facilities and all communications network control functions, if applicable
- Testing of all revenue and non-revenue vehicle functions. Input and output signals from devices supplied by others or already installed on the vehicles shall be simulated if the City cannot provide actual devices for testing.
- Testing of AVL functions using the City's actual map and database information for the routes that will be traversed
- Verification of all data transfers to the appropriate the City databases
- Testing of all user interface functions.

The duration of the Mini-Fleet Test will depend on the number of problems encountered and the need for additional testing; however, it is expected that the testing will take place over a period of at least twenty-one (21) days. The testing shall continue until the City is satisfied that the TIN is operating properly with the mini-fleet and is ready to support the addition of the remainder of the fleet.

The Contractor shall provide on-site support during this test to conduct the testing, to help identify and document variances, and to correct any variances. At the successful completion of the Mini-Fleet Test and the correction of any resulting variances, the Contractor may continue with the installation of TIN equipment on the remainder of the fleet, in accordance with a City approved installation and phase-over plan.

9.8 Phase-Over to Revenue Operations

Following successful completion of the Mini-Fleet Test and correction of all variances, the remainder of the initially installed the City fleets shall be gradually phased over to revenue operations on the TIN. During the phase-over to revenue operations, the City will monitor the performance of the TIN and notify the Contractor of any failure or degradation of the system or its components. Likewise, the Contractor shall notify the City of any failure or degradation of the system discovered by its representatives. Such failure or degradation shall be promptly corrected by the Contractor at no cost to the City.

During the phase-over to revenue operations, no adjustments, modifications, or substitutions are to be made by the Contractor to the fixed-site radio equipment, except by approval of the City.

9.9 Field Functional Performance Test

The Field Functional Performance Test shall completely verify that all the specified and Contractor-proposed features and functions of the TIN hardware, software, and firmware have been properly designed and implemented at SCT. The tests shall be conducted by the Contractor. City representatives will witness all tests and City representatives may perform the hands-on actions of the test procedures, at the City discretion. If the City elects to perform the hands-on actions of the test procedures, knowledgeable Contractor representatives shall be present at all times to assist the City representatives with the testing.

The following conditions must be satisfied prior to the start of the Field Functional Performance tests:

- All final hardware and software engineering design changes shall be incorporated into the TIN
- TIN documentation, including drawings, list of deliverables, software functional description document, field functional performance test plans and test procedures, and all user manuals shall have been reviewed and approved by the City
- All action items related to document approval, system performance, and test simulation techniques shall be resolved

The following items, as a minimum, shall be included in the Field Functional Performance Test:

- Inspection of all equipment for conformance to drawings, specifications, and applicable standards, and for satisfactory appearance
- Testing of the proper functioning of all hardware by thoroughly exercising all devices, both individually and collectively
- Testing of the proper functioning of all software and firmware features and functions, including test cases with normal and exception data
- Testing of the proper functioning of all voice and data communication features and facilities and all communications network control functions, if applicable
- Testing of all revenue and non-revenue vehicle functions. Input and output signals from devices supplied by others or already installed on the vehicles shall be simulated if the City cannot provide actual devices for testing.
- Testing of AVL functions using the City's actual map and database information for the routes that will be traversed
- Verification of all data transfers to the appropriate the City databases
- Testing of all user interface functions
- Simulation of hardware failures and failover of each TIN device that has a backup unit
- Verification that spare capacity and ultimate sizing requirements have been met, including all expansion requirements
- Verification of the accuracy of the system performance monitoring software

- Verification that the processor loading and system response time requirements have been met while exercising all Contractor-supplied software and performing functions as delineated in Appendix E
- Verification of device and system recovery from AC power failures
- Verification of the accuracy of hardware and software documentation via random checks
- Testing of the display generator/editor, report generator/editor, and software and database maintenance functions
- Verification of all reports provided with the system, including ad hoc reports
- Testing of the Bulk Data Transfer function.
- Testing of the Passenger Information Display System
- Testing of the interface to RouteMatch
- Testing of failure modes
- Testing of the emergency alarm
- Testing of the Scheduling system interface
- Testing of interface to GFI farebox and Cubic Fare System

If City representatives believe the quantity and/or severity of the TIN variances warrant a restart of the Field Functional Performance Test, the test shall be halted, remedial work shall be performed, and the complete test shall be rerun at a time agreed upon between the Contractor and representatives of the City.

9.10 Availability Test
Following the successful completion of all other testing a 720-hour (30 day) test shall be conducted to verify the ability of the TIN to meet availability requirements. Prior to the start of the test, all variances must be corrected and all hardware and software documentation must be received and approved by the City.
During this test, the Contractor shall not make adjustments, modifications, or substitutions to the TIN without the express, written approval of the City.

9.10.1 Availability Requirements
The total TIN availability requirement specified in Section 8.2 (Availability) shall be exhibited by the TIN in accordance with the availability criteria also specified in Section 8.2. Individual device availability shall also be measured over the Availability Test Period in accordance with the availability criteria specified under Individual Device Availability in Section 8.2.

9.10.2 Test Responsibilities
The City will be responsible for conducting the Availability Test. The test shall consist of normal TIN revenue operations without special test equipment or procedures. Test records defined in the Availability Test plan and procedures will be maintained by City personnel. The City will operate and maintain the TIN according to procedures described in the approved Contractor documentation.
The Contractor shall provide TIN maintenance on an on-call basis, as needed, via either consultation or on-site assistance. When on-site maintenance support is needed, qualified Contractor personnel shall arrive at the site within the time specified in Section 10.3, Maintenance During Installation, Field Test, and Warranty.

9.10.3 Test Definitions
The following definitions of downtime and hold time shall apply to the Availability Test.

9.10.3.1 Downtime
Downtime occurs whenever the criteria for successful operation defined in Section 8 are not satisfied. Downtime shall be measured from the start of diagnostic procedures until full service is restored. In the event of multiple failures, the total elapsed time for repair of all problems shall be counted as downtime.

9.10.3.2 Hold time
During a test of this nature, certain contingencies may occur that are beyond the control of the Contractor and of the City. These contingencies may prevent successful operation of the TIN but, at the same time, are not considered to be downtime for the purpose of measuring TIN availability. Such periods of unsuccessful operation may be declared "hold time" by mutual agreement of the City and the Contractor. These periods will not be considered in availability statistics for acceptance purposes.
Specific instances of hold time contingencies are as follows:

- Scheduled Shutdown: During scheduled shutdowns, or if an equipment failure occurs while its backup device is scheduled out-of-service, the resulting system outage shall be hold time, provided that service can be restored according to Contractor-specified procedures within 30 minutes.
- Power Interruption and Environmental Excursion: Loss of power, or manual shutdown in the event of loss of environmental control, shall be considered hold time. If the TIN is operated during periods of power or environmental conditions beyond those specified, any resulting downtime shall also be considered hold time.
- Service Response Time: Hold time will be allowed for the Contractor to respond to each call for maintenance support; this hold time will be limited to the service response time specified in Section 10.3.3, Maintenance During Installation, Field Test and Warranty. The time between detection of a failure and the start of diagnostic procedures shall also be considered hold time when performed by City personnel.
- Corrected Design Defect: Hold time may be declared by mutual agreement to ensure against similar future occurrences if a failure occurs due to a defect in TIN design and the Contractor defines corrective measures. Hold time may be declared while the Contractor is implementing and testing the corrective measures.

9.10.4 Test Satisfaction
After 720 hours of cumulative test time, test records shall be examined to determine conformance with availability criteria. If test objectives have not been met, the test shall continue until the specified availability is achieved, based on one of the following time periods:

- Total elapsed test time – required availability is achieved over an extended test period that exceeds 720 hours (the test window is extended)
- Consecutive 720-hour period of test time, exclusive of hold time – required availability is achieved over a 720-hour period different from the initial test period (the test window is moved).

In order to establish that all failures have been satisfactorily repaired prior to the end of the Availability Test, no downtime or any uncommanded restart or failover shall have occurred within 240 hours of the test's conclusion and no more than one uncommanded restart or failover shall have occurred during the entire 720-hour test period. The test shall be extended, if necessary, to satisfy this requirement.

After the satisfactory conclusion of the Availability Test, the availability of each TIN device shall be measured against the device availability criteria defined in Section 8. If one or more TIN devices do not meet the defined criteria, then completion of the test shall be delayed until the City representatives and the Contractor mutually agree that corrective action has been completed for those devices. Corrective action shall include performing all necessary procedures to test and verify proper operation to the City satisfaction.

SECTION 10
10.0 Training, Support Services, and Maintenance
Requirements for Contractor-supplied training of City personnel, for Contractor-supplied support services, and for maintenance of the TIN are described in this Section.

10.1 Training
The Contractor shall provide a comprehensive training program that prepares the City personnel for operation, administration, and troubleshooting of the TIN. Training may be conducted by the Contractor, the Contractor's subcontractors, third-party software suppliers, and/or original equipment manufacturers (OEMs). The training requirements of this Specification shall apply to all courses including those taught by subcontractors, third parties, and OEMs, as well as to courses taught by the Contractor. The Contractor shall provide to the City all training credits supplied to the Contractor by the subcontractors, third parties, and OEMs and shall provide a list of subcontractor, third-party, and OEM training courses for which these credits can be used.
For the Preliminary Design Review, the Contractor shall provide a list of training courses including the title of each course, a list of topics covered, duration, prerequisites, and training site.

10.1.1 Hardware Support Training
TIN hardware support training courses shall be provided for all Contractor-provided TIN equipment to be installed on-board the City vehicles, at the central site, at the dispatch locations, and at all remote locations (if applicable). The hardware support training shall provide the City personnel with a working knowledge of the TIN hardware, its control, its operation, interfaces with other the City computer systems and devices, interfaces with external systems, interfaces with radio system hardware, and operation of diagnostic tools. The courses shall provide the City support personnel with an overall knowledge of the installation, preventive maintenance, troubleshooting, repair, and expansion procedures. The TIN hardware support training course shall be a minimum of 8 hours.

10.1.2 System Administration Training
This course shall provide training on the procedures necessary to configure, operate, and maintain the TIN in an efficient, controlled, well-documented manner. This course shall include training in:

- The structure, interfaces, and functions of the TIN software and databases
- System backup and restoration procedures.
- Generating, deleting, modifying, and installing reports in the real-time environment, including the use of ad hoc queries. Linkages to the database and application software shall be described. Generation and modification of typical City reports shall be included in this course.
- Generating, deleting, modifying, and installing displays in the real-time environment. Linkages to the database and application software shall be described. Generation and modification of typical the City displays shall be included in this course.
- Installing software updates provided by the Contractor and third-party software suppliers.
- Using the software configuration management and administration tools.
- Failing over to backup servers and devices.
- Interpreting and responding to messages generated by all error-monitoring software.
- Maintaining and tuning the databases using database management tools.
- Updating fixed-route schedules and other data that is imported into the TIN.
- Updating the AVL map database by importing revised base maps, routes, bus stops, etc.; and also distributing these map updates to all map-equipped workstations.
- Managing the historical data archive facility.

- Performing incremental maintenance of route, schedule, vehicle, bus stop, timepoint, and vehicle Operator data within the TIN.
- Using the operating system(s) and network administration facilities.
- Performing updates to the audio/visual next stop announcements, and to the destination signs, the steps necessary to record new messages, define the triggering conditions for each message, and to add, delete, modify, and download the messages to the vehicles shall be explained. In addition to the basic mechanics required to program the devices, the course shall cover recommended guidelines for properly defining audio and visual messages, based on the experience of other transit agencies. The course shall provide hands-on instruction with the City's actual audio/visual annunciation devices and destination signs and with the devices provided to generate and modify the messages.
- Interfaces with existing external systems
- Managing Bulk Data Transfers
- Adding, deleting and editing user names and profiles

The System Administration course also shall include overview level training on the structure, organization, and functionality of the system software, application software, and database to allow system administration personnel to effectively support maintenance contracts for this software. The System Administration course shall be a minimum of 4 days.

10.1.3 Supervisor and Dispatcher Training

The Contractor shall train supervisors and dispatchers in the functional capabilities of the TIN and in the operation of the TIN workstations, other console equipment, the Mobile Computer Terminal, and other non revenue onboard vehicle equipment. This course shall provide a thorough understanding of the user interface requirements of all TIN functions and the Contractor-supplied radio system operation, and also shall familiarize City dispatchers with general TIN design concepts and features. It shall include hands-on training using the actual hardware and software being delivered to the City. Training aids for this course shall include a Dispatcher Manual. The supervisor and dispatcher training shall be a minimum of 2 days.

10.1.4 Scheduling Software Training

The City is seeking a hearty training program for its staff of the scheduling software consisting of, at a minimum:
- System administrator training
- System user training
- Schedule and Report generation training
- Test schedules and Ad hoc report generation training
- Interface to TIN, including schedule import

Proposers should be specific about the training that will be provided for each of the categories above including: the number of days or hours, the materials to be covered, the level of competency that will be attained upon completion and the point at which the training will occur during implementation. In addition, please provide details about the vendor's staff person(s) who will conduct the training including years of experience, area of transit expertise and a complete list of locations, with contacts where the staff person has conducted training in the past. Proposers should note that, upon completion of the training, the City's staff must have the skills and technical expertise to make full use of the scheduling system. Proposers are encouraged to discuss, in detail, the plan to include the City's staff in the initialization or calibration of the system. Proposers should also discuss the minimum computer training that a staff member will require prior to system training. The scheduling software training shall be a minimum of five days.

10.1.4.1 Training Documentation and Equipment

Upon completion of the training, the selected vendor will provide the City with five (5) hard

copies and one (1) electronic copy of all training materials.
The City will make available its conference room and computer equipment for the training. Training should be "hands-on" and tailored to enhance the technical expertise and operating efficiency skills of the City's staff.

10.1.5 Revenue and Non Revenue Vehicle Operator Instructor Training
The Contractor shall train select City personnel to be qualified instructors in the operation of the on-board fixed route and commuter revenue vehicle equipment and non revenue vehicle equipment supplied by the Contractor. This course shall provide a thorough and clear presentation of the user interface of the on-board equipment and shall include hands-on training using the actual on-board hardware and software being delivered to the City. Hands-on training shall be provided for the operation of the dispatch consoles to enable the City instructor personnel to demonstrate operator-dispatcher interactions. This course shall also instruct City instructor personnel on the setup, operation, and configuring of the vehicle operator training sets and any simulation hardware and software provided by the Contractor for the City use as vehicle operator training aids. Training aids for the course shall also include the Vehicle Operator Manuals. The Revenue Vehicle Operator Instructor Training shall be at least 12 hours.

10.1.6 Supplemental and Follow-On Training
The Contractor shall provide extended, duplicate, and additional training for the TIN as deemed necessary by the City because of the following occurrences:
- Major modifications to TIN hardware and/or software that is implemented by the Contractor after completion of the scheduled training courses and that impacts the content of those courses
- Delays in placing the TIN into revenue service for which the Contractor is responsible and that result in more than three months elapsing between completion of one or more training courses and the placing of the TIN into revenue service.

Supplemental training shall be supplied at no cost to the City. the City will determine the time, location, and extent of any supplemental training in consultation with the Contractor.
Four (4) hour follow on training sessions shall be provided to supervisors and dispatchers, revenue operator trainers, scheduling software users, and system administrators, after the system has been fully installed.

10.1.7 Training Course Requirements
The following sections describe general requirements that apply to all training courses.

10.1.7.1 Class Participants
The Contractor shall provide training for the following groups:
- Facility Hardware Support
- Vehicle Hardware Support
- System Administration
- Dispatchers
- Revenue Vehicle Operator Instructor
- Non-Revenue Vehicle Operators

Because selected City staff to be trained may not all be available at the same time, the Contractor shall include at lease two sessions for each training course. Contractor shall indicate the number of sessions for each course, the cost of each course, and the duration of each course in hours.

10.1.7.2 Training Schedule
The Contractor shall conduct training in a timely manner that is appropriate to the overall TIN schedule. One session of the Dispatcher training course and the revenue vehicle operator training course shall be conducted prior to the start of the Mini Fleet, so that

these trained personnel may participate in the TIN Mini Fleet testing. These courses shall be repeated, as necessary, so that affected the City personnel receive all appropriate training within 6 months of scheduled phase-over to production operations. The Contractor shall finalize the training schedule in consultation with the City after Contract Award.

10.1.7.3 Training Location and Classrooms
All training shall be done at the City's Transit Maintenance Facility. The City will provide basic classroom facilities for all training conducted at their facilities. The Contractor is responsible for all special equipment required for the training.

10.1.7.4 Instructors
The principal instructors provided by the Contractor, by the subcontractors, by third-party software suppliers, and by OEMs shall have had previous formal classroom instructor training and relevant experience with the TIN hardware and software. The instructors shall demonstrate a thorough knowledge of the material covered in the courses and familiarity with the training documentation, tools, and training aids used in the courses.
When prerecorded lectures are part of a training course, the lecturer or a qualified substitute shall supplement the recorded material. All the City-specific material shall be presented in person by a qualified instructor.

10.1.7.5 Training Documentation and Equipment
The Contractor, subcontractors, third-party software suppliers, and OEMs shall provide training documentation and detailed agendas for each training course and submit them to the City for review prior to the start of classroom instruction. the City prefers that training manuals prepared specifically for use as training aids be used as the primary training document; but system documentation such as reference manuals, maintenance manuals, and user's manuals may also be used. Principal documents used for training shall be tailored to reflect all the City hardware, software, terminology, and user requirements. If system documentation is used for training, the quantities of documentation provided for training shall be in addition to the quantities otherwise required by this RFP.
Upon completion of each course, instructor's manuals, training documentation, and training aids shall become the property of the City. As part of the delivered system documentation and the final documentation, the Contractor shall supply the City with all changes and revisions to the training documentation. The City reserves the right to copy all training documentation and aids for use in the City conducted training courses.
The Contractor shall furnish for use during training courses all special tools, equipment, training aids, and any other materials required to train course participants. The number of special tools and other training equipment shall be adequate for the number of participants attending the course.

10.1.7.6 Video-Based and Computer-Based Training
The Contractor may use standard prerecorded lectures and workbooks, computer-based interactive courses as training material, and on-line training subject to prior approval by the City. All such courses shall be supported by the availability of qualified personnel to answer questions and provide in-depth discussion of difficult topics at no additional cost to the City. The Contractor shall provide the City with copies of all such training course material for retention and playback by the City as reference documentation and training aids. The Contractor will videotape all training courses using its own recording equipment and provide those recording to the City for future trainings, at no additional cost to the City..

10.2 Support Services
Throughout the design, implementation, testing, and field installation phases of the TIN project, the Contractor shall supply engineering data and services, as required by the City, regarding the necessary site preparations, communication facilities, field installation of equipment, and solutions

to technical problems related to the TIN. These support services shall apply to TIN hardware, software, and operational needs.

Proposers should describe, in detail, the installation/start-up and post-implementation support to be provided to the City including:

- Meetings
- Conference calls
- Staff availability
- Telephone support, toll free hot lines and hours of availability of support
- Special plans defining "levels" of customer support
- The delivery methods of future upgrades and product enhancements including historical frequency of upgrades
- Availability of "user groups"
- Problem reporting and resolution procedures
- Procedures for proposer off site access to the City's system (web access, remote dial-in etc.)

10.2.1 Installation and Phase-Over Plan

Early in the implementation phase of the TIN, the Contractor shall meet with the City personnel to discuss and develop the steps, procedures, and schedule for system installation and phaseover. Based on the results of these discussions, the Contractor shall prepare a TIN Installation and Phase-Over Plan.

The Installation and Phase-Over Plan shall describe a smooth and secure transition between the existing radio equipment and the TIN, with no effective loss of control over dispatching operations. This plan shall allow for a period of parallel operations of the existing equipment and the TIN. The Contractor shall be responsible for implementing all software and hardware required to support system phase-over.

The Installation and Phase-Over Plan shall describe in detail the design and procedures used to support the parallel operation, to test and verify the functionality of the TIN, and to switch operations between the existing equipment and the TIN. The TIN Field performance, communication system (if applicable), mini-fleet, and full fleet testing to be performed during the installation and Phase-over period shall be described in this plan.

The plan shall provide detailed information concerning site preparation and equipment installation and shall be based on a clear understanding of the City's existing communications equipment, computer system equipment, buildings and building facilities, building renovation plans, radio equipment sites (if applicable), operational requirements, TIN equipment, and schedule requirements. ***It is the responsibility of the Contractor to conduct any site visits that may be necessary to ensure a complete understanding of the City facilities and existing equipment and systems.*** The vehicle installation plans shall define how the vehicle installation work will be performed, the sequence in which vehicle installation work will be performed (i.e., the order of the installations by operation and/or by vehicle type), the schedule for installing on-board equipment on the vehicles, and the support and facilities expected from the City.

10.2.2 System Setup

The Contractor shall be responsible for initially setting up the TIN and for entering and loading all required data into the system, which shall include, but not limited to, the following:

- Defining the hardware and software configuration
- Defining the user accounts and user functional partitions
- Defining all data required for the system databases
- Defining the routing of event queue entries
- Defining the canned data messages
- Downloading and importing all schedule information
- Setting the initial values for all user-adjustable parameters
- Setting the initial schedule and route deviation reporting thresholds
- Entering all communications parameters
- Configuring all network devices for the required security and accessibility
- Loading the City base map, including all overlays

- Loading all information for dispatcher reference information displays
- Loading all geo-coding data
- Recording all audio messages
- Performing initial programming of the audio/visual messages for the next stop annunciators and messages for the destination signs
- Loading all trigger locations for audio/visual messages.
- Loading of all custom and contractor provided reports.

10.2.3 System Preparation, Packing, and Shipment

Since the City may purchase an OEM maintenance contract for the system hardware, the Contractor shall prepare, pack, and ship the TIN equipment in a manner that is consistent with OEM recommendations, and shall do nothing that invalidates any manufacturer's warranty or prevents the purchase or continuation of a commercially available maintenance contract.

10.2.3.1 Preparation for Shipment

The TIN shall be prepared for shipment to avoid damage in transit and to facilitate installation. The equipment shall also be refurbished, as necessary, prior to shipment. All external surfaces shall be thoroughly cleaned, and all paint chips, broken parts, and other signs of use shall be repaired. The TIN equipment shall be shipped in an "as-new" condition.

10.2.3.2 Packing

All material and equipment shall be packed, crated, or otherwise suitably protected to withstand shipment to its destination. Equipment shall be shipped assembled and completely wired wherever possible.

Site accessibility and the size and nature of available doors, bays, elevators, and shafts with access to the City dispatch rooms, equipment rooms, offices, radio communications sites (if applicable) and any other locations where TIN equipment is to be installed shall be inspected by the Contractor. The TIN shall be shipped in modules that can be moved into place without requiring structural alteration of any building.

Each package, crate, and part shall be clearly marked with the name of the consignee, shipping destination, contract number, and other such markings as appropriate.

Complete packing lists shall be supplied showing the contents and identity of each package. One copy of the list shall be securely attached to the outside of each shipping unit.

10.2.3.3 Shipment

The components of the TIN shall be shipped to the City's Transit Maintenance Facility and shall be received at the City facility by Contractor personnel. The Contractor shall be solely responsible for the storage and security of the equipment held at the City Transit Maintenance Facility at all times. When the equipment is installed, the Contractor shall be responsible for moving the equipment from the storage location to the installation site.

The Contractor shall notify the City project manager two weeks prior to any shipment, including the placement of the storage containers at the City sites, and again 48 hours prior to arrival of equipment. The equipment shall be delivered Monday through Friday between 7:00 AM and 5:00 PM local time.

Insurance on all deliverables shall be obtained and maintained by the Contractor during shipment, unloading on City premises and remote installation sites, and while the equipment is in storage prior to installation.

10.2.4 Installation

The Contractor shall install all Contractor-provided equipment and the wiring required to properly connect all equipment to other new or existing equipment, and to power sources. The logistics of the installation activities will be resolved between the City and the Contractor in the course of developing the Installation and Phase-Over Plan.

10.2.4.1 Dispatch Control Center Installation

The Contractor shall install all Contractor-provided equipment at the City dispatch control center located at the Santa Clarita Transit Maintenance Facility, along with the wiring, antennas, mountings, connectors, and all hardware required to connect each device to other Contractor-provided equipment, existing equipment, and power supplies. The specific Contractor equipment includes, but is not limited to:

- Roof-mounted antennas (if necessary), mounting hardware, radio signal transmission cable, and all antenna associated hardware
- Application, database, and communications servers and associated peripherals, printers, system administrator workstation, server terminal, LAN routers, differential GPS receiver, central radio electronics, telephone/microwave interface equipment, backup radio equipment, and UPS
- Dispatcher workstations and associated equipment, time displays, printers, and TIN LAN.
- All wiring shall conform to the City's Wiring standards listed in Appendix C.

The City of Santa Clarita wiring standards require that any additions or modifications to their system or any system that may be added to new buildings in the future meet or exceed all applicable federal, state and local fire, electrical and Operational Safety and Hazards Administration (OSHA) codes. As well as other standards that may be specified elsewhere within this document.

The standard voice cabling will comply to or exceed Category 3 specifications and data/network cabling will comply to or exceed Enhanced Category 5 "CAT 5e" specifications.

All contractors installing data wiring in a City of Santa Clarita facility must be Avaya Systimax Structural Cabling certified. This will be verified be referring to Avaya web site of certified installers.

All jack panels must be mounted in an Anixter Model 099509, 19 inch by 84 inch brushed aluminum rack. All 19 inch racks will be bolted to the floor in four different places and attached to the wall with at least two brackets at the top of the rack. Multiple racks may be bolted together, when space and stability dictate

The City of Santa Clarita's wiring system standards require cable racks, cable trays or cable ladders be used within any major equipment or service area.

10.2.4.2 Vehicle Installations

The Contractor shall install all Contractor-provided on-board equipment on the City vehicles along with the wiring and connectors required to connect each device to other Contractor-provided equipment, existing vehicle equipment, and the vehicle power supplies.

The final installation details for each type of vehicle will be determined after contract award, once the physical dimensions, mounting requirements, and other details of the Contractor-provided equipment are known. As a part of the Installation and Phase-Over Plan, the Contractor shall provide onboard equipment installation procedures for each type of vehicle. City personnel will work jointly with Contractor personnel on the first vehicle of each type, to ensure that the installation procedures and equipment locations are acceptable to the City.

In order to allow for a smooth phase-over from the existing communications equipment to the TIN, some or all of the Contractor-provided on-board equipment and wiring may have to be installed on the City vehicles prior to the removal of the existing on-board equipment and wiring. It may also be necessary to either temporarily or permanently move existing vehicle equipment and devices in order to properly install the Contractor-provided equipment and wiring. Any such parallel installations, relocations of equipment, and the eventual removal of the existing equipment that is being replaced by Contractor provided equipment shall be the responsibility of the Contractor.

In general, the City anticipates that it will be best for the Contractor to perform the vehicle

installation work during nights (approximately 7pm to 4am) and weekends, when vehicle availability will be the greatest. All vehicle installations shall be performed at the Santa Clarita Transit Maintenance Facility.

Specific vehicle installation requirements are as follows:

- All installations shall be completed in the same manner within a type of vehicle.
- Installation of mobile equipment shall minimize the exposure to and possibility of damage due to abuse, vandalism, and theft. Theft-resistant fasteners and mountings shall be used. Cables shall be run in hidden and protected spaces to the degree possible.
- If new radio mounting trays are necessary, they shall be fabricated to use the same mounting holes as the existing trays, or otherwise attached so as to obviate the need to drill new holes.
- The City reserves the right to require replacement of the subcontractors due to poor workmanship, excessive time spent in installation, and for unacceptable work.
- Installation contractor personnel shall coordinate with City management so as to be aware of the local safety plan, OSHA and the City safety rules, and California State safety regulations, procedures and requirements..
-
- To facilitate the installation of vehicle equipment, the City will provide the following:
- Supervisory personnel to help the Contractor coordinate vehicle transfers and other logistics
- Delivery of all vehicles to the garage
- Dedicated space at the garage location for storing tools, parts, and other equipment needed by the Contractor
- Work area for the Contractor's use at the garage (a minimum of one garage bay and additional yard space will be available).

The Contractor shall also be responsible for providing and installing all necessary interfaces between the Contractor-provided on-board equipment and the following existing equipment:

- Passenger lift/ramp indications
- Destination signs
- Public address equipment
- Fareboxes
- Engine monitoring and diagnostics equipment
- Odometers
- Video system (option)
- Door sensors.

10.2.4.3 General Installation Standards

The workmanship and appearance of work throughout the TIN shall be of the best commercial quality and adhere to all applicable standards and codes. Work shall adhere to the highest standards of safety for personnel and property. Work shall be performed only by qualified personnel, and shall be supervised by technically competent, trained, and experienced Contractor supervisory personnel. Installation shall comply with all Universal Building Code (UBC) and State seismic requirements for region.

Installation work shall exactly follow equipment manufacturers' instructions for grounding and all other installation details.

All fixed equipment shall be securely attached to the floor and/or wall. If applicable, the first rack in each row shall be securely anchored to the wall, and additional racks shall be bolted to the adjacent rack at the top of the rack. Stand-alone racks, and every third rack, shall be securely cross-braced to the ceiling. Racks and cabinets shall be shimmed to

plumb alignment. All equipment and components shall be easily accessible for adjustment and service. Equipment rack spacing shall allow not less than 3 feet clear working space. All equipment shall have full access front and rear, except that equipment mounted on swingout racks is permissible.

The Contractor shall supply all necessary installation materials, such as fasteners, cable ties, bushings, and brackets and shall be responsible for any damages caused by its negligence during installation, acceptance testing, and the Contractor's maintenance period.

Cabling and equipment exposed to the weather shall be adequately protected from wind, rain, and dust. Seals, gaskets, packing, sheathing, finishes, mountings, and all other exposed items shall be designed for maintenance-free performance under long-term exposure to weather, including ultra-violet radiation. Equipment and cabling installed inside buses shall be adequately protected from water and dust, which are present during both normal operations and bus cleaning operations.

All base station testing, maintenance, and repair functions shall be possible from the front of the equipment rack, without removing the entire base station from the rack. Controls, adjustment points, displays, connectors, terminal strips, and circuit boards on all provided equipment shall be labeled to indicate the function. Legends on control panels and other equipment shall be permanent and easily legible, resistant to fading or peeling, and capable of withstanding repeated cleaning without degradation or loss of legibility.

Legends shall be applied to equipment by silk-screening, etching, engraving, or other approved method. Stencil transfer letters, hand-applied letters, or embossed plastic strips are not permitted.

One original key and two copies shall be provided for each type of lock supplied. Each set of keys shall be assembled on a heavy-duty, double-loop key ring, and equipped with a permanent tag indicating the associated lock. All vehicle equipment shall be keyed alike.

10.2.4.4 Wiring Standards

Wires and cables shall be installed in accordance with the following practices:

- Except for fiber optic cables, all conductors shall be copper of not less than 98% conductivity. Aluminum conductors are not acceptable.
- Conductors shall be continuous between terminals, without splices.
- Conductor gauge, insulation, and shielding shall be adequate for the intended purpose (see also the Cabling and Wiring subsection within Section 7 for additional requirements concerning wiring).
- Cable and wire shall be run neatly with adequate lacing or clamping.
- The manufacturer's minimum bending radius of cables shall not be exceeded at any point during installation.
- Consistent cable and wire color-coding shall be used throughout.
- All applications requiring physical movement and flexing shall use stranded conductors.
- Ring-type, crimped or soldered lugs shall be used with stranded wires terminated on screw-type terminals. Connections shall be made only with crimping tools that meet the connector manufacturer's specifications.
- Radio system audio lines and control function lines shall be terminated on industry standard "66-type" punch blocks, with pre-wired 25-pair telephone-type connectors.
- Shielded wiring, or other means of signal isolation, shall be used wherever necessary to avoid cross-talk, hum, pops, clicks, whine, and other forms of interference. The Contractor shall provide an interference-free system.
- Unless installed in conduit, wiring within console cabinets, in ladder racks, beneath raised floors, and from outlet boxes to free-standing or desk-mounted equipment shall be neatly installed, bundled with appropriate tie-wrap devices, and tied to supports if practical.
- Transmission lines shall be secured through cable blocks attached to channel supports. Horizontal cable runs longer than the manufacturer's

recommended self-support distance shall be tied to a rigid support, at intervals not greater than three feet. Vertical cable runs shall be supported at intervals not greater than six feet. Radio transmission cable shall not lie on a roof or other horizontal surface. All cables shall be dressed appropriately, and run parallel to each other.

- Control Center signal and control wiring, and connection of devices referenced in this Specification, shall be installed in conduits or concealed, and shall be included as part of the work to be performed by the Contractor. Wiring shall be accessible for maintenance. At unattended sites and equipment rooms, open cabling is permitted on cable racks provided the cables are neatly tied.
- The insulation on interconnect cabling used within consoles, equipment cabinets, or in areas where the wiring will not be installed in metallic conduit, shall be of heat- resistant material to minimize pyrolysis and fire hazard.
- Cable and wiring penetrations through metal cabinets shall be insulated with dielectric grommets.
- Cable and wiring installed in modular furniture (if applicable) shall be run in trays or channels designed for that purpose.
- Extra wiring necessary for equipment movement shall be neatly coiled, tied, and concealed.
- Wiring in dropped ceiling areas shall be mounted with J-hooks and shall not lie on top of light fixtures or ceiling tiles, nor be attached to existing cables, conduits, or ceiling wires.
- Cable penetrations through building outside walls shall be thoroughly packed and waterproofed.
- Cables, wiring forms, and terminals shall be identified by permanent labels, tags, or other appropriate means. Cables shall be identified at both ends with indications of the source and destination of that cable run. The cable identification shall agree with the wiring and interconnect diagrams.
- Contractor-supplied antenna transmission lines shall be labeled with cable identification tags at the indoor connection. Labels shall denote the antenna type, height, frequency, and VSWR at installation.
- Cables and wiring shall be "plenum" rated where required by the most restrictive applicable code.

10.2.4.5 TIN and Radio System Interference

Contractor-supplied TIN equipment shall not cause or be degraded by interference. For Contractor-supplied radio and TIN equipment and as used in this section, "interference" means any interference from such causes as intermodulation, adjacent channel signal rejection, broadband transmitter noise, etc. It includes interference either conducted or radiated to and from microprocessors, microcomputers, minicomputers, servers or mainframe computer devices, and all associated equipment including, but not limited to, I/O devices, terminals, printers, data concentrators and protocol converters.

- Any required intermodulation analysis of a radio site will be negotiated with the Contractor on a case-by-case basis.
- The Contractor may be required to perform tests at sites where interference is noted or expected. These tests may include the effects of transmitter and receiver intermodulation, transmitter noise, and receiver desensitization between existing and proposed stations. The responsibility for the mitigation of interference not caused by Contractor-installed equipment will be negotiated on a case-by-case basis.
- The performance of TIN or the City equipment shall not be degraded by radiated and conducted interference. Equipment shall not cause interference that degrades the performance of existing devices.

- Synthesizer circuits used in mobile units shall not cause, or be affected by, interference to or from existing electronic and electrical systems in vehicles and other installations.
- Mobile unit installations shall be immune to ignition impulse, alternator, and other RF interference from on-board sources.

10.2.4.6 Decommissioned Equipment
At an appropriate time as determined by the City, the Contractor shall remove all decommissioned equipment that was replaced by the TIN, both at fixed site locations and on-board vehicles. The Contractor shall inventory the removed equipment, disable mobile radios, separate base station equipment, prepare and package (i.e., palletize, pack in containers) the equipment (except base station equipment) for disposal by the City according to federal requirements, and shall move it to locations to be specified by the City. The base station equipment will be retained by the City. The Contractor shall handle this equipment separately and move it to a location specified by the City.

10.2.5 Technical Support
During any period in which a maintenance contract is not in effect, the Contractor shall continue to provide technical support on an as-needed, per-diem basis for a minimum of 10 years after final acceptance. Consultation with knowledgeable Contractor technical support personnel and trained field service personnel shall be readily available to assist the City personnel in maintaining, expanding, and enhancing the TIN. Technical support and consultation shall include cooperation with, and assistance to, the City in implementing interfaces with other systems for the exchange of information between the systems.

10.2.6 Change Notification Service
The City shall be informed of all alterations or improvements to the hardware, software, and documentation supplied under this RFP. The City shall be placed on the Contractor's mailing list to receive announcements of the discovery, documentation, and solution of hardware and software problems, as well as other improvements that could be made to hardware and software provided with the TIN. The service shall begin at the time of contract award, and shall continue for 10 years following final acceptance. The Contractor shall also include a subscription to hardware and software subcontractors' change notification services from the time of contract award through the warranty period, with an the City renewable option for extended periods.

10.3 System Maintenance
In this section, system maintenance requirements prior to shipment and during installation, field test, warranty and after warranty are described. All maintenance performed by the Contractor, subcontractors, and OEMs shall be in accordance with procedures and schedules recommended by the equipment OEMs.

10.3.1 Maintenance Records
Software maintenance activities shall be recorded via the code management system (see Code Management subsection within Section 5.6.5), beginning with the start of software integration. Hardware preventive and corrective maintenance activities shall be recorded in a hardware maintenance log. The hardware maintenance log shall be submitted to the City when the Field Performance Test is completed and shall be available for City inspection throughout the project.

10.3.2 Maintenance Prior to Shipment
The Contractor shall be responsible for performing repairs and preventive maintenance on all Contractor-provided equipment and software during development, integration, and factory testing of the TIN.

10.3.3 Maintenance During Installation, Field Test, and Warranty
The Contractor shall be responsible for maintenance and support of all Contractor-provided equipment and software (including all fixed-site and on-board equipment) until successful

completion of the warranty period. Contractor shall provide a single point of contact for the maintenance and support of all Contractor and third party provided hardware and software. Contractor shall be responsible for the coordination and problem resolution of all third party hardware and software.

During the startup and field testing period (until successful completion of the Availability Test), maintenance for all equipment shall be available from the Contractor, on-site, within 24 hour during operating days and hours and 24/7 phone support. During this period, all faulty equipment and hardware must be replaced by the Contractor within 24 hours of notification.

Following final acceptance of the system by the City, maintenance for all equipment shall be available from the Contractor, on-site, within 24 hours during operating days and hours and 24/7 phone support, until successful completion of the warranty period. All maintenance for the City vehicle equipment shall be coordinated with the City.

For all TIN software, the Contractor shall provide technical assistance as deemed necessary by the City until successful completion of the warranty period. Technical assistance may be in the form of troubleshooting or program repair. The Contractor's support shall be available on-site within 4 hours, when deemed necessary by the City and 24/7 phone support.

The warranty period for all TIN hardware and software shall extend for one year following final acceptance of the TIN by the City (or for such longer periods as mutually agreed to by the parties).

10.3.4 Maintenance After Warranty (Option)

Contractor shall propose maintenance contracts and alternative maintenance plans for review by the City. Recommended maintenance contracts providing maintenance for the entire TIN system shall include contracts from the Contractor, all software developers, radio equipment OEM for Contractor-supplied radio equipment, and other equipment OEMs for maintenance of the TIN equipment and hardware.

Maintenance contract(s) that satisfy the following requirements shall be available for purchase by the City from the equipment OEMs:

- Preventive and corrective maintenance
- Twenty-four hour seven days per week technical support
- Twenty-four hour on-site response time during work hours (8 am to 5pm), Monday through Friday
- Parts and labor.

The City shall have the option of purchasing a one-year, renewable maintenance contract for some or all of the equipment, following the expiration of the warranty. Proposers shall include in the base proposal separate maintenance contract pricing per year for 5 years.

Prior to expiration of the warranty, the Contractor shall have equipment certified by its OEMs as acceptable for the OEMs' contract maintenance services.

10.4 Spare Parts and Test Equipment

The Contractor shall provide spare parts and test equipment for the TIN as required by sections 10.4.1, and 10.4.2. If it becomes necessary at any time prior to acceptance of the TIN to modify the supplied hardware that is to be maintained by the City (such as the use of a different type, size or configuration of equipment) to meet the requirements of this Specification, the Contractor shall provide all additional spare parts the City needs to maintain the modified hardware at no cost to the City.

10.4.1 Equipment Supported by Maintenance Contract

All spare parts, special test equipment, and other special devices necessary to troubleshoot and repair the equipment that is supported via maintenance contracts shall be the responsibility of the Contractor.

10.4.2 Equipment Maintained by the City

All spare parts, special test equipment and other special devices necessary to troubleshoot and repair the equipment to be maintained by the City shall be delivered with the TIN. For multiple devices of the same type, such as MDTs, the quantities of spare parts and test equipment

provided shall be sufficient to maintain the devices even if multiple failures occur simultaneously. In lieu of a kit of spare parts for each subsystem or component, fully assembled additional devices may be supplied.

For the on-board vehicle equipment supplied by the Contractor, the quantity of spare parts provided shall be sufficient to maintain the fleet for a period of one year following final acceptance of the system by the City. In addition, fully assembled spare devices shall be supplied for the on-board vehicle equipment provided by the Contractor. The quantity of fully assembled spare on-board devices shall be equal to ten percent (10%) of the required on-board equipment quantities specified in this RFP.

SECTION 11
11.0 Project Management, Schedule and Documentation
This section describes the interaction between City project personnel and the Contractor, project schedule, quality assurance, and documentation requirements for the TIN project.

11.1 Project Management
The Contractor's project manager assigned to the TIN project shall have the authority to make commitments and decisions that are binding on the Contractor. The City will designate a project manager to coordinate all TIN project activities. All communications between the City and the Contractor shall be coordinated through the project managers.

The project shall be staffed from the list of project management, engineering, system analysis, and software personnel presented in the Contractor's proposal. Principal participants shall have previous experience in a similar position on at least one other project similar in scope to the TIN project.

The assignment and reassignment of principal participants to the TIN project by the Contractor shall be subject to the City approval and may result in the assessment of penalties on the Contractor. See Appendix I for a detailed list of incentives and penalties.

Each reporting period, the Contractor shall provide an updated project schedule (Section 11.2) and a complete progress report (Section 11.3) and attend a progress review meeting (Section 11.5.1). The reporting period shall be monthly. All references to reporting period in this section shall refer to this one-month time frame.

11.2 Project Schedule
The TIN project shall be scheduled to meet the following requirements:

- The detailed project schedule (using Microsoft Project), a list of training deliverables, and a documentation status table, shall be provided within one month after Contract Award.
- The preliminary design review shall be completed and the associated documents approved within three (3) months after Contract Award.
- The final design review shall be completed and the associated documents approved within six (6) months after contract award.
- Factory tests shall be successfully completed and the TIN shall be shipped within twelve (12) months after contract award.
- The field performance test, communication system coverage tests and all mini-fleet tests shall be successfully completed within fifteen (15) months after contract award.
- Installation and checkout of the on-board equipment on all the remainder of TIN vehicles, completion of the system availability test, and final acceptance of the system by the City shall occur eighteen (18) months after contract award.

The project schedule shall include the major project events defined above, the payment milestones, Contractor activities, the City activities, documentation schedule, and training schedule.

The project schedule shall be an accurate representation of the progress and planned activities for the TIN project. The Contractor shall maintain the schedule using Microsoft Project. A copy of the Microsoft Project schedule file shall be provided by the Contractor, to the City.

11.2.1 Contractor Activities
The project schedule shall include all Contractor activities related to the TIN project, including the following:
- Preliminary and Final Design Reviews
- Data submittal assistance – provide detailed information on data requirements for the TIN as part of PDR and assist the City in producing the required data sets
- Hardware purchases, development, and integration
- Documentation preparation and issue
- Documentation revision and reissue following the City comments
- Software design, coding, implementation, and integration
- System integration
- Training
- Progress Reports
- Meetings
- Pre-factory testing
- Factory tests
- Shipments
- Field installation
- Implementation of TIN LAN/WAN
- Field tests
- Installation of the on-board equipment
- Maintenance support
- Availability testing
- Final Acceptance
- Start of warranty

11.2.2 City Activities
The project schedule shall include all the City activities required for the Contractor to complete the TIN project, including the following:
- Contract Award
- Document review and approval
- Data submittals
- Meetings
- Training
- Factory tests
- Field tests
- Availability testing
- Q/A of fixed end and mobile installations.

11.2.3 Documentation Schedule
A schedule of all TIN documentation to be provided during project implementation for the City review or approval shall be included in the project schedule. The initial schedule shall assume a minimum of two review cycles (i.e., one for the initial issue and one for a revised version) of each document will be required prior to approval. Twenty (20) working days shall be allotted in the schedule for the first the City review of each submitted document, and ten working days shall be allotted in the schedule for each subsequent review of the same document. Working days are defined as Monday through Friday, excluding the City holidays.
The review and approval of documents and the impact on the start and finish of succeeding activities shall be consistent with other activities in the project schedule. For example, coding of a

function should not be shown to start until after the finish date for approving the associated documents.

11.2.4 Training Schedule
A recommended schedule for all proposed training courses shall be included in the project schedule. Scheduling of courses shall be coordinated with other activities in the project schedule.

11.3 Progress Reports
A progress report shall be prepared by the Contractor for each reporting period. The report shall be made available to the City at least one (1) week prior to each progress meeting. The progress report shall include the following items:

- An updated project schedule with explanations of any deviations from the planned delivery schedule. The explanations shall include the anticipated impact of any delays and a plan for returning to the target schedule. All delays shall be factored into the project schedule as soon as they are known to the Contractor's project manager. Also, all changes to the schedule since the last progress report shall be identified.
- An updated list of all correspondence transmitted and received
- An updated documentation status table showing the status of all documentation items and highlighting the documents to be transmitted for review during the next two reporting periods
- A summary of activities performed by the Contractor and/or the City during the previous reporting period.
- A summary of pending and upcoming Contractor and the City activities during the next two reporting periods, along with required completion dates
- The status of unresolved contract questions and change requests
- A description of current and anticipated project problem areas and steps to be taken to resolve each problem.

11.4 Weekly Conference Calls
The Contractor shall participate in weekly conference calls with City representatives. The purpose of these conference calls shall be to discuss any technical, schedule, action item, deliverable, coordination, or project management issues that need to be resolved in order to help keep the project on schedule. These conference calls shall be scheduled for a mutually agreeable time, preferably at the same day and time, every week. Although these conference calls will be conducted informally, and both the Contractor and the City may propose topics to be discussed during each call, a brief agenda shall be issued by the Contractor prior to each conference call. Brief notes concerning items discussed during the conference call will be generated and distributed by the City.

11.5 Meetings
The Contractor's project manager shall attend progress review meetings and conduct project review presentations described in this section. The progress review meeting shall be held a minimum of once per calendar month. The Contractor's project manager will be responsible of preparing agendas and meeting notes and distributing them to all participants within five (5) business days of the completion of the meeting.

11.5.1 Progress Review
Progress meetings shall be scheduled and attended by the Contractor every reporting period to review progress of the project. Progress meetings shall be used to review the progress report, written correspondence exchanged since the last meeting, and open action items.
The Contractor shall also attend technical meetings as required to discuss technical aspects of the project and to review comments on documents submitted for approval. When appropriate, these technical meetings shall be conducted as extensions to the progress meetings. Unless mutually agreed to by the City and Contractor, these meetings will be held at the City of Santa

Clarita Transit Maintenance Facility.

11.5.2 Technical Project Reviews
The Contractor shall conduct two major technical project review presentations in addition to the progress review meetings defined in Section 11.5.1. The Preliminary Design Review (PDR) shall be conducted when the system design has reached the level of completion described in Section 11.5.2.1 and no later than the time specified in Section 11.2. The Final Design Review (FDR) shall be conducted when the system design has further progressed as described in Section 11.5.2.2 and no later than the time specified in Section 11.2.
All submittals that are required for the presentation, plus an agenda and presentation material (i.e., slides) shall be received by the City at least ten (10) working days before the presentation. The PDR and FDR presentations and discussions shall be conducted at the City Transit Maintenance Facility and are expected to span multiple days and shall continue until all issues are resolved. The PDR and FDR shall not be considered successfully completed until the City is satisfied that the design has progressed to the appropriate level and that there are no significant unresolved issues. If, in the City's opinion, the design has not reached the appropriate level for PDR and/or FDR, the Contractor shall correct the inadequacies and portions of the review presentation shall be repeated as required by the City and no schedule relief shall be granted.

11.5.2.1 Preliminary Design Review (PDR)
For the preliminary design review, the Contractor shall present the design approach for the TIN and all major subsystems, including the following: room space layout, total system functional description, software system overview and design, mobile radio system design (as applicable), console position layout, computer system configuration, network configuration, communications interfaces, onboard equipment design and functions, and implementation approaches for future hardware and functions described in the specification. All subcontractors shall attend the presentation. The submittals that shall be provided for the PDR to support the design approach are as follows:

- System functional description
- Hardware configuration block diagrams showing all TIN equipment, including interfaces to other the City systems and equipment
- Mobile radio system fixed site designs (where applicable), including all radio equipment, antenna systems, and power systems to be installed at each location, and dimensioned room layouts
- Mobile radio system intersite communications design, including communications between the CAD/AVL common server equipment and the fixed base station sites
- Mobile radio system technical data (if applicable), including coverage maps, simulcast delay-spread maps (if applicable), receiver sensitivity, and transmitter power
- Layout plans for all console locations showing the dimensions and locations of the consoles and all other TIN equipment at those locations, including CAD/AVL, radio, and UPS equipment
- Console (position) layout drawings showing the dimensions and locations of all Contractor and customer-furnished equipment being installed on or in the consoles (or console positions)
- Software design documents
- Custom hardware design documents
- Documentation of power requirements for equipment in Server Room, radio site, and onboard equipment.
- On-board equipment block diagrams, equipment layouts, equipment installation locations and mounting details (for each type of vehicle), sample units, VCH operator panel layouts, and functional descriptions

- Draft dispatcher manual (for both fixed-route and commuter operations) that describes the layout and content of all TIN displays and reports and the user actions required to perform each function available to the dispatchers
- Draft bus operator manuals provides detailed operating instructions and procedures for each function available to the bus operators, using the Contractor-provided on-board equipment
- Draft road supervisor manual that provides detailed operating instructions and procedures for each function available to the road supervisors using the Contractor provided on-board equipment
- Training course list
- Draft installation and phase-over plan
- Interface definition document(s)
- Confirmation of executed contracts with all major subcontractors.

11.5.2.2 Final Design Review (FDR)

The Final Design Review presentation shall include an update of all the design activity to date. All major subcontractors shall attend the presentation. Approval of the FDR and associated documentation will allow the coding effort, integration, and other final designs to be formalized and completed. Any unapproved design and implementation efforts conducted before approval of the FDR will be at the Contractor's own risk. In addition to the submission of previous documentation, updated to reflect the results of any design changes since the PDR, the submittals shall include the following:

- Detailed plans and schedules for the implementation and commissioning of the TIN, including parallel operation procedures
- Copies of each TIN report
- Color copies of all TIN displays
- Database documentation

11.6 Transmittals

Every document, letter, progress report, change order, and any other written or computer readable material (in written or electronic form) exchanged between the Contractor and the City shall be assigned a unique transmittal number. Discussions and phone calls where important information is exchanged will be documented by the City in a transmittal. The Contractor shall maintain a correspondence index and assign transmittal numbers consecutively for all Contractor documents. the City also will maintain a correspondence numbering scheme identifying documents and correspondence initiated by the City. All documentation identified above shall be issued to the City.

11.7 E-Mail Communications

The Contractor shall support electronic mail (e-mail) correspondence between project participants for routine and informal correspondence. The use of e-mail is intended to provide for timely communication and document distribution among TIN project personnel, but it is not to be a substitute for formal communications and submittals required by this RFP. All such contractual communications, correspondence, and submittals shall be provided in hardcopy, as required by the RFP unless agreed otherwise between the Contractor and the City after contract award.
The Contractor and the City will jointly develop any additional procedures or restrictions pertaining to the use of e-mail after contract award.

11.8 Use of Consultants

No limitations shall be imposed on City use of consultants in any activity related to the project. The consultants, at the direction of the City project manager, shall be accorded the same access to facilities and participation in project activities as any member of the City project team. Involvement of consultants may include, but shall not be limited to, progress and technical meetings, conference calls, document review, installation review, and system testing.
The City shall have the option of adding consultants to the distribution list to receive all

correspondence initiated by the Contractor. the City shall also be able to add consultants to the distribution list to receive all or selected system documents. The consultants will be bound by the same confidentiality restrictions imposed on the City personnel.

11.9 Quality Assurance
The definition, design, development, integration, testing, field installation, and documentation activities of the TIN project shall be conducted in accordance with the Contractor's hardware and software quality assurance plans presented in the proposal.

11.10 Document Review and Approval Rights
To ensure that the proposed TIN conforms to the specific provisions and general intent of this RFP, the Contractor shall submit documentation describing the TIN to the City for review and approval. Contractor shall establish an electronic document management system that can be easily accessed by project personnel via the internet. The document management system shall contain all project documents, and drawings.
The City will respond with written comments to the Contractor within the number of days specified in Section 11.2.3 after receipt of the documents. The Contractor shall promptly resubmit to the City for approval all documents requiring correction along with written responses to each the City comment. To help expedite the City's re-review, all re-submitted documents shall include margin revision bars to clearly show where changes have been made in the documents.
The City will review the resubmitted documents and the Contractor's responses to City comments and will record its approval or submit additional comments to the Contractor within the number of days specified in Section 11.2.3 after receipt of the documents. This review and update process shall be repeated for each document until the document is approved by the City. No implementation schedule relief is to be implied for documents requiring further correction and resubmission to the City.
To help the City manage the review and turnaround of documents during any given period, the Contractor shall stagger the release of documents over the time allocated in the project schedule for document review. The number and size of documents shall be factored into the release schedule. The City shall have the right to require the Contractor to make any necessary documentation changes at no additional cost to the City to achieve conformance with project specifications.
Any purchasing, manufacturing, or programming implementation initiated prior to written City approval of the relevant documents and drawings will be at the Contractor's own risk. Review and approval by the City shall not relieve the Contractor of its overall responsibilities to satisfy all functional requirements of the project specifications.

11.10.1 Standard Document Review
Documentation of the Contractor's standard hardware, software, and firmware shall be furnished for the City review, but approval shall be limited to the content of the document. Specifically, the City reserves the right to determine that:
- All standard hardware, software, and firmware is in full conformance with project specifications.
- The documentation accurately and completely describes all features and options of the hardware, software, and firmware that pertain to the TIN.

11.10.2 Modified and Custom Documents Approval
In some cases the Contractor's standard hardware, software, or firmware may need to be modified to fully conform to the requirements of this specification. In other cases, selected portions of the hardware, software, or firmware may be completely custom. In both instances the City shall have, in addition to the approval rights described in Section 11.10.1, full approval rights over the portions of the document's content and format pertaining to the modified or custom hardware, software, and firmware. The following conditions must be satisfied for this approval:
- Hardware, software, and firmware must be in full conformance with Contract requirements.

- Changes and modifications must be documented in a complete and clear manner in accordance with the Contractor's established documentation standards.
- Features, equipment, and options pertaining to the City must be clearly distinguished from those that do not pertain.
- The Contractor must follow its established quality assurance plan for design, implementation, and integration of the affected hardware, software, and firmware.

11.10.3 Functional Requirements and Test Document Approval

The City shall retain full approval rights over all Software Functional Requirements documentation (Section 11.11.3.2) and test documentation (Section 11.11.10) regardless of the standard, modified, or custom classification. In addition, the City shall have full approval rights over the format of displays and the user interface pertaining to TIN functions.

11.11 Documentation

Complete documentation of the TIN shall be provided. Documentation shall be prepared in accordance with the Contractor's documentation standard presented in the proposal. The City reserves the right to reject documents not conforming to the standard.

All documentation shall exactly reflect the configuration of hardware and software supplied in response to this RFP. Any changes as a result of latent defects and design changes shall result in all affected documentation being updated within 30 calendar days of correction.

Each document shall be identified by a Contractor document number and a City project number. Where a document is revised for any reason, each such revision shall be indicated by a number, date, and subject in a revision block, along with an indication of official approval by the Contractor's project manager. The number of copies to be submitted for review, as preliminary documentation, and as final documentation are defined in Sections 11.11.13 and 11.11.14.

Electronic copies of required documents also shall be provided to the City in Adobe Portable Document Format (PDF). The PDF-format copy is required in addition to the specified number of printed copies for each submittal. PDF copies of each document shall be delivered or e-mailed to up to five the City designated personnel.

The Contractor shall provide a TIN Documentation Index, identifying all documents to be provided with the system. The index shall describe each document and the document's purpose, to help the user locate the appropriate document in the set of all TIN documentation. The Contractor also shall provide a documentation status table, updated for each progress report (Section 11.3), that includes the following information for each document: title; Contractor's document number; actual or scheduled dates for initial submission, reviews by the City, resubmissions, preliminary, and final; and revision number for each submission. The documents in the documentation status table shall be grouped by type of document (hardware, software, user, etc.).

11.11.1 System Functional Description

A customized System Functional Description shall be provided that contains a high-level definition of the TIN hardware, software, and firmware, and the functions performed by each. The System Functional Description shall serve as a complete introduction to the TIN and to the more specific documents defined in Sections 11.11.2 through 11.11.9. The following information shall be included in the system functional description.
- An overview of the hardware configuration showing all major hardware subsystems The overview shall include block diagrams in sufficient detail to show the interrelationships of major hardware subsystems, including the mobile radio system, and the elements that comprise them.
- A description of the major hardware subsystems, the elements that comprise them, their interrelationships, and the functions they perform. System availability, server performance, spare mass storage, and device redundancy shall be described.
- An overview of the major software subsystems, describing the software, the interrelationship of software within a subsystem, and the relationship

between subsystems. High-level software subsystem block/flow diagrams shall be included to enhance the reader's understanding of the overall capability of the TIN. The subsystems to be described shall include: CAD software; AVL software; mobile radio system software (as/if applicable); operating systems; network software; system interfaces; support utilities; database; and display, map, and report generation.

- A complete description of the software and the individual functions performed by the software, significant features, concepts, and algorithms pertaining to each function shall be described, with special emphasis on equipment, software, and features unique to the TIN.

11.11.2 Hardware Documentation

Documentation for all TIN hardware shall be provided to the City. In addition to the documentation specifically identified below, the Contractor shall provide the City with all documentation originally supplied with standard OEM hardware devices purchased.

11.11.2.1 Inventory, Floor Plans, Wiring, and Block Diagrams

The following items shall be provided by the Contractor:

- An inventory of all hardware to be supplied, including the manufacturer's name, model number, serial number, nameplate data, the City identification tag number, overall dimensions, and quantities
- Floor plans for each TIN equipment location, showing rack, cabinet, console, and peripheral device locations and sizes
- Installation drawings showing how the on-board vehicle equipment provided by the Contractor is to be installed on each type of City vehicle.
- Detailed installation wiring diagrams and cabling diagrams. Any special precautions associated with cabling shall be clearly identified. All City cable and wiring terminations shall be shown on drawings, and all terminal markings, cable connector markings, and cable lengths shall be clearly indicated.
- Configuration block diagrams.

11.11.2.2 Site Preparation Manuals

Physical planning and site preparation manuals shall be provided for all hardware. The manuals shall contain:

- Drawings of all racks, cabinets, enclosures, consoles, power supply equipment, computer equipment, and communications equipment
- Mounting details, clearance requirements, and environmental restrictions
- Device installation requirements, including distance restrictions between cabinets
- Electrical power supply and grounding requirements
- Heat dissipation specifications
- Contractor-supplied antenna alignment details.

11.11.2.3 Radio Communications System Technical Data

The Contractor shall provide the following system technical data for all Contractor-supplied radio equipment:

- Coverage maps showing the entire the City service area and highlighting those areas with predicted coverage based on the Contractor's system design
- Simulcast delay-spread maps (if applicable) showing the entire the City service area, and those areas with a predicted differential transmission delay from the base station sites of greater than 42 microseconds, using a capture ratio of 12 dB
- Effective 12 dB SINAD receiver sensitivity at the input to each receiver

- Base station transmitter power delivered to the transmission line, after combiner losses
- Rated transmission power of the fixed site and mobile radios.

11.11.2.4 Enclosure Assembly Documentation

Enclosure assembly drawings shall be provided that show the location of all major subassemblies, such as power supplies, printed circuit card chassis, and components comprising the subassemblies to the level of printed circuit cards, in each enclosure (including equipment racks, cabinets, and consoles).

The drawings shall identify each subassembly and component by part number and revision level. The drawings shall include interconnection wiring diagrams showing all interconnecting cables, including signal, grounding, antenna, and power distribution cables. Drawings shall be provided for each enclosure. A copy of the appropriate drawing(s) shall be stored inside each enclosure, preferably on the door of the enclosure.

11.11.2.5 Custom Hardware Design Documentation

If applicable, for each hardware device that is built specifically for, or is highly customized for, the TIN project, the Contractor shall provide hardware design documentation. This documentation shall include, but not be limited to, functional description, specification data (such as features, capacity, performance parameters, power requirements, dimensions, weight, and environmental limits), physical drawings, mounting details, and schematics.

11.11.2.6 Reference Manuals and Instruction Books

Reference manuals and instruction books shall be provided for all hardware. These manuals shall include documentation relating to TIN hardware, including descriptions, specifications, theory of operation, installation information, and drawings. The Contractor shall include an attachment to each document outlining those portions of the document, if any, that do not apply to the City hardware. Hardware user manuals also shall be provided where available.

11.11.2.7 Maintenance Manuals

Manuals and other descriptive material shall be provided for all Contractor-provided equipment, regardless of whether it is manufactured by the Contractor or another supplier. This documentation shall include descriptions, specifications, theory of operation, printed circuit module schematics and layout drawings (showing component types and positions), motherboard schematics (showing inter module connections), back panel and assembly wiring diagrams, pin lists, and other electrical, electronic, and mechanical hardware data.

Instructions shall be provided for preventive maintenance procedures that include examinations, tests, adjustments, and periodic cleaning. The manuals shall provide guidelines for isolating the causes of hardware malfunctions and for localizing faults. Complete parts lists and breakdowns with sufficient descriptions to identify each field replaceable component shall be provided.

11.11.2.8 Diagnostic Program Manuals

Diagnostic program user manuals shall be provided with complete instructions on the loading and operation of all hardware diagnostic programs required for the equipment to be maintained by the City.

The text shall include guides for locating faults, symptoms, possible causes of trouble, and suggested remedial action. Sample printouts from the diagnostic programs shall be included.

11.11.3 Software Documentation

Documentation for all TIN software shall be provided to the City. In addition to the documentation specifically identified below, the Contractor shall provide the City with all documentation originally

supplied with standard OEM software purchased from others. The Contractor shall also provide an index listing all software to be supplied along with version, status, and license information.

11.11.3.1 Standard Software Documentation

Existing documentation and user manuals for standard software shall be provided. Standard software is defined as field-proven software purchased from third-parties and software developed internally as a base for all projects that fully satisfies the requirements of the Specification without modification for the City. Typical examples include operating systems, compilers, software development utilities, software diagnostic programs, network managers, and window managers.

11.11.3.2 Software Functional Requirements Document

A software functional requirements document shall be provided covering each TIN function. It shall contain the following information for each function:

- An introduction describing the function and its purpose, with references to other documents to aid the reader's understanding of the function
- A complete description of the function, including algorithms, operation, and the data and logic interfaces with other functions
- A description of the user interface, including displays and keyboard operations used to control and review output produced by the function
- A description of alarms and messages issued by the function and the conditions under which they are generated
- Performance requirements that describe the execution periodicity and the tuning parameters that control or limit the capabilities of the software.

11.11.3.3 Interface Control Document

An Interface Control Document (ICD) shall be provided for each interface to an external computer that is supported by the TIN. The ICD shall contain sufficient detail to enable a third party to fully implement the external side of the interface. ICD content shall include, but not be limited to, detailed descriptions of protocols, message structures, and individual record and field formats.

11.11.4 Firmware Documentation

If the Contractor implements certain functions in firmware, that firmware shall be documented in conformance with the software documentation requirements.

11.11.5 Database Documentation

Database documentation shall be provided that describes all TIN real-time and historical databases. The documentation shall describe the configuration, individual elements (files, records, fields, views, and tables), relationships, and security settings for each TIN database. Documentation content shall include, but not be limited to, entity-relationship diagrams (ERD) and a complete listing of the data dictionary for each database. Portions of the databases developed, modified, or enhanced specifically for the TIN shall be identified. Complete administrator documentation for the database management system(s) utilized by the TIN shall also be supplied.

11.11.6 Dispatcher Manual

Dispatcher Manuals shall be provided that contain detailed operating instructions and procedures to be used by the dispatchers. Information in the Dispatcher Manual shall be presented in terms that are meaningful to the dispatchers. This manual shall include a description of the operation of the TIN (hardware, software, and mobile radio equipment) as it relates to the dispatcher's tasks. The Dispatcher Manual shall be customized for the City and shall be based on the delivered TIN. It is not acceptable to describe the Contractor's standard system and then identify differences between the standard product and the delivered system; the Dispatcher Manual shall not include standard or optional descriptions that do not apply to the TIN.

The Dispatcher Manuals shall describe each function and how it is used. The manual shall not be written as a programmer's document. Procedures shall be explained step-by-step with an

explanation of how each step is performed, which parameters can be adjusted, and the effects obtained by varying each parameter. All user guidance and error messages shall be described, along with the steps necessary to recover from errors.

Each dispatcher function defined in this RFP and all other functions accessible to Dispatchers shall be included in these manuals. The manual shall also include a copy of each type of display and report used in the TIN, along with a description of each data field. User instructions for each display and report shall be provided.

The Dispatcher Manuals shall describe procedures to be followed as a result of computer system restarts, failures, and failovers, and failures of elements of the mobile radio system. The manual shall have sufficient information to guide the dispatcher on how to restart servers and the TIN system, reconfigure the TIN, and save and interpret diagnostic messages.

11.11.7 Vehicle Operator Manuals

The Contractor shall provide Vehicle Operator Manuals that contain detailed operating instructions and procedures on all of the Contractor-provided equipment to be installed on-board the City's fixed route and commuter vehicles. Information in the manual shall be presented in terms that are meaningful to the vehicle operators and shall use the City terminology that is already familiar to the operators. The operation of the equipment shall be explained as it relates to the vehicle operator's tasks. Separate manuals shall be provided for fixed route and paratransit operators. Contractor shall also provide a pocket size guide for fixed route and paratransit operators.

All of the features and functions of the TIN equipment installed in the buses shall be explained in the manuals. The Vehicle Operator Manuals shall be customized for the City and shall be based on the delivered equipment. It is not acceptable to describe the Contractor's standard equipment and then identify differences between the standard and delivered equipment; the Vehicle Operator Manuals shall not include standard descriptions that do not apply to the delivered equipment.

The manuals shall not be written as a programmer's document. Procedures shall be explained step-by-step with an explanation of how and why each step is performed, which parameters can be entered, and the effects obtained by varying each parameter. All user guidance and error messages shall be described, along with the steps necessary to recover from errors.

11.11.8 Non-Revenue User Manual

The Contractor shall provide a non-revenue User Manual that contains detailed operating instructions and procedures on all of the Contractor-provided equipment to be installed in non-revenue support vehicles used by road supervisor, maintenance, and other support personnel (as applicable).

Information in the manual shall be presented in terms that are meaningful to these personnel. The operation of the equipment shall be explained as it relates to tasks performed by these personnel. All of the features and functions of the TIN equipment installed in the non-revenue support vehicles shall be explained in the manual. The non-revenue User Manual shall be customized for the City and shall be based on the delivered equipment. It is not acceptable to describe the Contractor's standard equipment and then identify differences between the standard and delivered equipment; the non-revenue User Manual shall not include standard descriptions that do not apply to the delivered equipment.

Procedures shall be explained step-by-step with an explanation of how each step is performed, which parameters can be entered, and the effects obtained by varying each parameter. All user guidance and error messages shall be described, along with the steps necessary to recover from errors. Functions performed by a user of a Mobile Computer Terminal (MCT), shall be explained in the manual.

11.11.9 System Administrator Documentation

User-oriented documentation shall be provided to guide the City system administrator in the operation and procedures required to maintain and update the TIN, including system software and firmware, database, application software, and other elements of the TIN. system administrator documents shall be provided for the following items:

- Software code management
- Programming language compilers and assemblers

- Network communications management
- Server configurations
- System performance monitoring and tuning
- System restart failover management and diagnostic procedures
- System generation and management
- Database generation and management
- Display generation and management
- Report generation and management
- Base map interface/loading procedures
- Schedule data interface/loading procedures
- Diagnostic programs
- Software utilities
- GIS data importation management
- System configuration
- System and data backup
- System security
- Audio/Visual Stop Announcement creation and editing procedures
- Interfaces with existing external systems
- Managing Bulk Data Transfers
- Adding, deleting and editing user names and profiles
- Software update procedures
- Troubleshooting procedures
- Historical data archive facility management procedures
- Other Contractor-supplied system software not included above.

11.11.10 Test Documentation
Documentation for all system factory, field, and availability tests shall be provided in accordance with the requirements defined in Section 9.

11.11.11 Training Documentation
Training documentation shall be provided in accordance with the requirements defined in Section 9.

11.11.12 Program Code
The Contractor shall provide the City with a machine-readable copy of all source code and other program files developed for the City, including those developed for interfacing the TIN to external systems and for all displays and reports developed specifically for the City. The machine-readable files provided shall contain all the data required to enable the City to add, modify, and delete any City specific displays, reports, and interfaces. Electronic copies shall be provided.
For the remainder of the TIN software and firmware (including the mobile data terminal and vehicle control unit code), the Contractor shall provide an escrow agreement that guarantees the City access to the source code and other files of the TIN software and firmware, should the Contractor be unwilling or unable to perform future system software/firmware maintenance or modifications required by the City. Electronic copies shall be provided. The software and firmware retained in escrow shall be updated each time the TIN software or firmware is updated at the City such that the version in escrow matches the version of the TIN installed at the City.

11.11.13 Review and Preliminary Documentation
Review documents shall be submitted to the City so that they may review and approve the Contractor's design. After reviewing a document, the City will either submit comments for inclusion in the next update, or approve the document. If the City submits comments for inclusion in the next update, the Contractor shall revise the document and submit another review version. When the City approves a document, the approved version is considered the preliminary document; and if the Contractor has not already submitted a quantity of copies greater than or

equal to the number of preliminary copies shown in Table 11-1, the Contractor shall provide to the City the required number of additional copies.

The preliminary documentation will be used by the City personnel for factory testing and for operating the TIN until Final Acceptance. All preliminary documentation shall be received by the City at least 6 weeks prior to the start of factory tests unless specifically directed otherwise in this Specification.

11.11.14 Final Documentation

Final documentation shall consist of preliminary documentation that is updated to include all subsequent changes made to the TIN up until Final Acceptance. Documentation revisions or changes necessitated by inaccuracies, installation requirements, omissions determined by usage, and design or production alterations to the TIN shall be supplied. All changes shall be issued in the form of replacements for the affected drawings, diagrams, charts, graphs, tables, lists, and pages in the documentation. Where appropriate, the complete document shall be re-issued.

All final Contractor-supplied documentation shall be easily reproducible by the City, and the City shall be granted the rights to reproduce any document supplied under this contract for its own use.

In addition to properly bound and assembled hardcopies of all final documentation, the City requires a copy of all final documentation produced by the Contractor on electronic media in commercially available word processing format and, where necessary, graphics formats. This media will be used by the City to maintain the accuracy of the documentation as future changes to the system are implemented. Standard documentation produced by others is not required in an electronic format unless it is routinely available from the vendor as a standard or optional item for on-line accessibility. This standard OEM vendor documentation need not be editable by the City.

11.11.15 Radio Communications System As-Built Drawings

The Contractor shall provide radio system as-built drawings for Contractor-supplied radio equipment, to include the following:

- Block and level diagrams
- Equipment installation drawings
- Device interconnections, including cable labeling and punch-block termination labeling
- Recommended settings for all adjustable devices and equipment, with explanations of the settings
- Test record sheets, with results of tests performed
- Licenses and permits, if applicable

An additional copy of the as-built drawing(s) shall be stored inside the appropriate enclosures at each radio site, preferably on the door of the enclosure.

11.11.16 Document Quantities

The Contractor shall provide five (5) sets of preliminary and final documents to the City for review. Additionally, all documents shall be provided to the City in PDF format, including each time a review, preliminary, or final document is updated.

SECTION 12

12.0 Radio System Requirements

The radio system backbone for the TIN shall consist substantially of the City's existing radio system. The City radio system, which is described in further detail below, currently provides two voice channels, one of which is allocated to fixed-route operations and one to paratransit operations. A third channel is licensed and may be made available to transit for transmitting data. If a radio (for data) option is proposed, the Contractor shall be responsible for integrating this data radio channel as well as the existing voice channels into the TIN. If a data radio system is not proposed, proposers shall propose an alternate system for data communications that will meet the TIN requirements.

This section describes the existing City radio system and specifies requirements for any new radio capabilities provided as part of the TIN. The information and requirements in this section are only for the mobile and fixed-end radio equipment. Related functional and performance requirements for the TIN can be found in other sections of this RFP.

12.1 Radio System Performance Requirements

12.1.1 General

It is the intent of this specification to provide for high-quality, state-of-the-art equipment that is designed, manufactured, and installed for private wireless voice and data service suitable for public transit operational demands. The equipment supplied shall provide high reliability and long service life under adverse conditions, with low maintenance.

12.1.2 Radio Coverage

The system described by this specification is intended to provide reliable mobile voice and data communications throughout the Santa Clarita Transit service area. Shaded areas on the Service Area Map provided in Appendix F define the City's service area, which is the primary area of required radio coverage.

There are known coverage issues with the current radio system for the Commuter lines to West LA, Century City, Newhall Pass, and the Antelope Valley. The radio system utilizes a site at Oat Mountain in the American Tower Building.

The City is considering modifying its radio licenses to change the antenna at the Oat Mountain site from an elliptical to an omni antenna with a downtilt to improve coverage for the commuter lines. It is anticipated the existing system with the omni antenna would still not provide full radio coverage.

The City is also considering installing portions of the LA Metro ATMS onboard system in the commuter buses to enable LA Metro to track vehicle locations of the commuter buses in the San Fernando valley, west LA, and Century City areas. The ATMS onboard system would include an OrbCAD IVU, CDM1250 data radio, GPS receiver and two antennas. LA Metro would track the vehicle locations and provide real-time AVL data to SCT via a T-1 link. The Contractor would be responsible for procuring, installing, and testing the LA Metro hardware. Proposers shall discuss their capability to install and test the ATMS equipment and to receive and process the AVL information received from LA Metro.

Proposer shall provide recommendations for a communication system that will provide complete voice and data radio coverage for the entire SCT service area. Proposers shall provide, as part of the proposal, detailed coverage maps showing the quality of coverage that is predicted for the proposed radio system design. The coverage maps shall clearly indicate areas where reliable data communications are predicted for both talk-out and talk-in. The City service area boundary outline shall be used on all coverage maps provided with proposals.

Testing requirements for communication coverage are contained in Section 9.6 of this RFP along with required test criteria and procedures for the radio coverage test.

12.2 Existing System

The City will use its analog, conventional, single-site, 471 MHz mobile radio system that is currently operated in an open-channel, voice-only mode. The radio channels are licensed at Oat Mountain and provide adequate coverage for operations throughout the service area for both fixed

route and paratransit. The City's radio system is currently not used for communication on commuter routes. Contractor shall install radio equipment on the commuter vehicles for voice and data communications.

With some upgrades and additions, this existing system is considered a viable foundation for the TIN.

Consequently, there will be substantial use of the existing radio system for the TIN. The following sections provide details concerning the existing radio channels and radio sites.

12.2.1 Radio Dispatch

Fixed-route and paratransit radio dispatch positions (one position each) are both located in a common central dispatch room at the City's Transit Maintenance Facility.

Fixed-route and paratransit dispatch radios consist of one (1) Kenwood TK860, one (1) Kenwood TK860G, and one (1) Kenwood TK8160 mobile radios. Each radio is connected to a Astron 13.8 VDC power converter.

12.2.2 Radio Channels

The City has licenses for and operates two wideband 471 MHz channels at one remote site for voice only. In addition, a third repeater channel for data may be available. The table below identifies all available channels for TIN.

Table 12-1 Existing City Radio Channels

Frequencies (MHz)	Max ERP	Current Use
471.1250	100 watts	DAR
471.1000	100 watts	Fixed-route
471.0000	100 watts	Allocated for Data

12.2.3 Base Station Site – Oat Mountain

The current the City system is configured as a single-site radio system with the base station site located at Oat Mountain. A second/back-up repeater is located in Santa Clarita at Central Park. Each of the two existing base stations has its own dedicated rooftop antenna at the site.

Antenna Systems:

Oat Mountain: Sinclair and Cellwave panel antenna with 10db gain

Radio Equipment:

Oat Mountain: One (1) 25 watt Kenwood TKR-820 and one (1) 25 watt Motorola M5500 repeater.

Backup Power Systems:

One diesel powered back up generator.
Contractor shall install a UPS for automatic backup power with capacity to provide one hour of backup power.

12.2.4 Mobile Radios

City of Santa Clarita Transit buses have either a Kenwood model TK-805DK2, TK-805DK12, TK860, or TK862 radio.

12.3 Radio System Enhancements

The Contractor shall utilize the existing radio system infrastructure for the TIN to the greatest extent possible. Certain enhancements to the radio system are required in the base offering while other enhancements are requested as options, as specified in the following sections. The

Contractor shall provide all required enhancements as well as other enhancements deemed by the Contractor to be necessary to properly implement the TIN.

12.3.1 Scope of Work

Key elements of the scope of work for the radio system include, but are not necessarily limited to, the following:

- Engineering, furnishing, installing, and testing all necessary fixed-site and mobile equipment, fixed-site facilities, devices, interconnecting cabling, and software. This shall include electrical connection to commercial and emergency power supplies (where specified), physical installation, reconfiguration of existing equipment, connection to existing termination blocks, connection to existing logging recorders, and connection to telephone lines or other interconnecting systems necessary to provide complete functionality.
- Designing and developing the radio system and equipment to ensure a complete, integrated system that meets all of the requirements of this RFP.
- Conducting site visits and providing close coordination and technical support as necessary to ensure that the design and functions of the radio system meet the specified requirements.
- Coordinating installation details and schedules with the City to ensure adherence to the implementation schedule.
- Coordinating activities with:
- The representatives and/or owners of all leased radio sites that may be proposed, including existing leased sites
- The local telephone company for leased circuits from the City dispatch to the radio site.
- The FCC for any licensing issue

12.3.2 Radio System Equipment

This Section describes the minimum quality and performance levels of the radio system equipment and software supplied by the Contractor.

12.3.2.1 General

New, high-quality equipment designed and manufactured for public transit service installations, which requires low maintenance, long life, and high reliability performance under adverse conditions, shall be provided. The following are general system requirements:

- Contractor shall provide one repeater for the data radio system at Oat Mountain.
- Contractor shall provide radio equipment for three dispatcher workstations.
- Equipment shall be capable of operation on both wideband (25 kHz) and narrowband (12.5 kHz) channels.
- All equipment shall be equipped with lightning and surge protection and shall be properly grounded.
- Spare rack space shall be provided for two (2) additional future base stations at the site for a total of four (4) stations.

12.3.2.2 Interconnection to Radio Site

The Contractor is responsible for the design of the interconnection between the Dispatch facility and the radio site to support the TIN. The Contractor shall provide the City with detail on circuit requirements for the operation of the TIN. This detail shall be provided to the City at least 90 days prior to the circuits being required for the operation of the TIN. Proposals shall indicate the type of interconnection(s) required to the radio site along with the estimated operating costs for the interconnection(s).

12.3.2.3 Base Stations

Contractor shall replace existing base stations as necessary to support the Contractor's TIN design. The base stations along with other Contractor-supplied radio site equipment shall be packaged into a space saving design that allows for easy accessibility and serviceability of this equipment. All support RF equipment shall also be contained in the same cabinets. The Contractor shall supply the number of cabinets required to accommodate all radio site equipment.

12.3.2.4 Mobile Radios

The City fleet is equipped with a Kenwood model TK-805DK2, TK-805DK12, TK860, or TK862 radio. The TIN shall interface with and utilize the existing mobile radios whenever possible. All mobile radios in TIN-equipped vehicles shall be programmed by the Contractor for operation on all of the City's licensed data (if applicable) and voice channels.

Proposals shall state whether the proposed TIN can support the existing radio system and any associated licensing fees.

12.3.2.5 Mobile Antennas

Any existing antennas that require replacement shall meet the following requirements:
- Revenue Vehicles – Antenna Specialists ASP572, or the City-approved equivalent
- Non-revenue Vehicles – 3 dB gain collinear whip antennas, elevated feed if trunk mounted, or the City-approved equivalent

The roofs of some vehicles are fiberglass and antenna installation may require the addition of a ground plane to be supplied and installed by the Contractor.

12.3.2.6 Radio Consoles

The Contractor shall replace the existing radio consoles with four (4) new desktop radio consoles. The proposed consoles shall be compatible with the City's existing radio system. The Contractor shall be responsible for interfacing the replacement radio consoles with all voice wireline circuits to the radio site.

12.3.3 Fixed DC Power Supply

12.3.3.1 General

The Contractor shall provide, install and wire an Uninterruptible Power Supply (UPS) at the radio site in accordance with this RFP. The UPS shall provide clean, undisturbed AC power to all critical loads at the radio site, which shall include all radio, telecommunications, and other Contractor supplied equipment at the site that is necessary to sustain full TIN functionality.

The UPS shall continue to provide power to the critical load for a period of time after the normal input AC power has been terminated, as specified below. Normal operation of the UPS shall be fully automatic and shall not require any form of manual intervention.

The frequency, voltage and harmonic distortion of the critical load power shall not be affected by the presence or quality of the input power either before power is terminated or for a 'ride-through' time after the input power is terminated.

12.3.3.2 UPS Capacity

The UPS shall be sized to provide for four (4) hours of normal TIN operation via the radio site in the event of primary AC power loss. In addition, the UPS shall include at least 30% spare load capacity to allow for future expansion at the radio site. This future added load may result in a reduced emergency operating time, but the emergency operating time shall not be less than one hour.

12.3.3.3 UPS Operation
The UPS output voltage shall (UNO) not vary more than 1% for a slow transition from no load to full load. The voltage output shall not dip more than 5% for a step transition from no load to full load. It shall track the input voltage over a range of +/- 20%. The UPS frequency output shall not vary more than 1 % from 60 Hz from no load to full load in the absence of a utility synchronizing signal. When the input power is present, UPS shall track the input voltage over a frequency range of +/- 5 Hz. The UPS efficiency shall be not less than 90% at full load.
The UPS operating modes shall be:

Normal: The critical AC load is continuously powered by the UPS inverter(s). The rectifier/charger(s) derives power from the utility AC source and supplies DC power to the inverter(s), while simultaneously float charging the batteries.

Emergency: Upon failure of utility AC power, the critical AC load is powered by the UPS inverter(s) which, without any switching, obtain power from its batteries. There shall be no interruption in power to the critical load upon failure or restoration of the utility AC source.

Recharge: Upon restoration of the utility AC source, the rectifier/charger(s) power the inverter(s) and simultaneously recharge the battery. This shall be an automatic function and shall cause no interruption to the critical AC load.

Bypass: If the UPS system must be taken out of service for maintenance or repair, the static transfer switch shall transfer the load to the emergency AC source. The transfer process shall cause no interruption in power to the critical AC load. This condition may be manually initiated or may be automatically initiated due to a self-diagnosed fault. Service Bypass: If the UPS must be serviced, the service bypass switch will remove power from both battery charger inputs (normal and emergency) and shall disconnect the load from the inverter.

Off-Battery: If the battery only is taken out of service for maintenance, it is disconnected from the rectifier/charger(s) and inverters by means of external disconnect circuit breaker(s). The UPS shall continue to function and meet all of the specified steady-state performance criteria, except for the power outage back-up time capability.

12.3.3.4 UPS Configuration
The UPS shall incorporate all, but not be limited to, the following elements: battery charger; inverter; battery; static bypass switch and controls. The UPS shall also include a service bypass switch.
The battery charger shall be sized to support the entire rated full load and recharge the battery within 95% full charge within eight (8) hours. The inverter shall supply high quality and stable power to the critical load without regard for the quality or presence of the incoming power. The Inverter output shall follow the phase changes of the Input power but shall not reflect any of its sags or surges. The battery shall be charged by the battery charger and shall provide power to the inverter.
The battery shall permit continued operation for a ride-through time. The batteries supplied with the UPS shall be non-vented type and shall, under normal operating conditions, require no water and shall produce no hydrogen.
The static-bypass switch shall switch the load from the inverter to the emergency input source upon the detection of a failure of the inverter. The transfer shall be done synchronously and shall not disturb the critical load.

SECTION 13

13.0 Variable Message Signs

13.1 Wayside Display
The contractor shall supply 12 single sided, two line, wayside message signs as part of this project.
All the functionality discussed in Section 7.12 shall be supported by the TIN.
The wayside sign shall consist of two (2) line matrices with a minimum of 24 characters per line and comply with ADA standards. In addition, the variable message signs shall meet the following standards:

- The wayside signs shall use Light Emitting Diodes (LED) technology.
- The variable message signs shall be capable of displaying static or scrolling information and shall support static and flashing text in the same line.
- The wayside signs shall be able to display a message composed of any combination of alphanumeric character fonts, punctuation symbols and full graphics.
- Display characteristics shall include variable and fixed width fonts, proportional spacing and fully configurable fonts.
- LEDs shall be red (626 nanometers) or amber (592 nanometers) on a black background and the color of the pixels shall be uniform across the sign.
- Failure of a pixel or module shall not cause failure of any other pixel.
- Modules shall be comprised of a minimum of 5 pixel columns by 7 pixel rows. Failure of operation of a single display element (pixel) shall not require on-site replacement of more than one 5x7 display module.
- Pixels shall be viewable in direct sunlight.
- The luminous intensity of the pixel shall not decrease more than 40% when viewed at a minimum angle of 30 degrees (15 degrees at 1/2 angle) centered about the optical axis and perpendicular to the surface of the display LED Viewing angle should be +/-30 degrees.
- The sign shall be designed such that the decrease in luminous intensity of any LED pixel under 24 hour continuous operation shall not exceed 30% after one year and 40% after five years.
- The time to display an alphanumeric character message using all available pixels, generated at the field controller shall not exceed 0.8 second from a blank state.
- The LED pixels shall be waterproofed to protect the LEDs.
- All LEDs shall be of identical make and model from the same manufacturer. The LED pixel design shall be such that it minimizes the effect of heat build up within the pixel. The LEDs shall operate within the LED's manufacturer's rated temperature range under the worst case operating conditions.
- The display element assemblies shall be secured to sustain the shock and vibration that exists in roadway conditions.
- All modules shall be securely mounted so that the nominal axis of the light output shall be perpendicular to the sign face
- Each pixel shall contain sufficient LEDs so that the entire sign with the polycarbonate sheet in front of the pixels shall fulfil the optical output, contrast, viewing angle, legibility and reliability requirements.
- The LED pixels shall be suitably housed for proper heat dissipation.
- The soldering of the LEDs shall be in accordance with the manufacturer's recommended guidelines.
- For effective message contrast and legibility, the wayside sign housing's front face shall be black in color.

- Each LED display line shall be separated by a minimum distance of 4 pixel spaces or have a border around each line.
- The sign display shall be clearly legible at full intensity from any viewing distance within 25 yards, during all day parts and all normally encountered weather and lighting conditions, including but not limited to direct sunlight.

The LED pixel shall be highly reliable for the intended applications. With a target continuous operating period of five (5) years, the mean time between failure of a single LED pixel shall not be less than 150,000 hours at the brightest level and with all the display elements activated within the maximum LED driving characteristics for the maximum design output for the sign operations at an outside air temperature of 130 degrees F and a relative humidity range of 5% to 100%. Failure of a pixel is defined as the inability to activate more than 25% of the LEDs in a pixel and/or achieving less than 25% of the intended pixel output intensity.

13.1.2 Physical Requirements
The sign case shall be vandal proof yet allow easy access to the display modules, wiring and internal components for maintenance purposes. Display modules shall be provided with a swing-down assembly such that all equipment can be removed and replaced.
The sign case shall be constructed of aluminum alloy or other approved non-ferrous, durable materials. The sign case shall provide the required protection and mechanical strength for the application.
The sign face shall be protected by weather tight, non-glare polycarbonate sheets. The sign enclosure and the equipment housed within shall be protected from moisture, rain, snow, sun radiation, dust, and dirt. The sign shall be able to operate outdoors, fully exposed to the elements in temperatures ranging from 20 to 130 degrees F.

13.1.2.1 Photosensor System
A minimum of two light sensors shall be incorporated into the sign to measure the external illumination from all directions.
The intensity of the sign display shall be automatically adjusted to a minimum of six different levels, to compensate for all ambient lighting conditions, including direct sunlight and darkness.
The luminance level settings shall be configurable.
Readings from the ambient light sensors shall be averaged over a suitable period of time, (60s +/- 30s), such that the sign display intensity is unaffected by transitory changes in external illumination.

13.1.3 Power supply
The wayside signs should be capable of being powered by either a direct power source (when available) or via solar panels. The final power source for each individual sign will be determined by the installation location.
Bidders shall specify the vendor and capabilities of the solar power system being proposed. At a minimum, the solar power option shall be capable of powering the wayside signs under low light and adverse weather conditions. The system should also allow the signs to be powered a minimum of 10 hours during non daylight hours. In order to conserve energy and improve customer service, the wayside signs shall be capable of automatically powering up and/or down at user defined times.

13.2 Terminal Display Signs
The contractor shall provide three (3), 40 inch or larger LCD or plasma displays that will be connected to the TIN and configured to display location specific vehicle arrival information, system route displays with real-time vehicle location information, public service announcements, special alerts, traffic conditions, and feeds from any and all systems connected to the TIN.
Proposers shall include screen shots of the proposed terminal display layout.
The requested LCD/plasma displays shall be designed to continuous operate for a period of five (5) years and have a life expectancy no less than 100,000 hours at the brightest level.

The proposed displays shall be designed to operate in an outside temperature range of 20 to 130 degrees F.

13.2.1 Physical Requirements
Each Terminal Display shall be enclosed in a vandal and weather proof casing. This enclosure shall reduce glare and allow for easy access to the display unit, wiring and internal components, for maintenance purposes.
The sign case shall be constructed of aluminum alloy or other approved non-ferrous, durable materials. The sign case shall provide the required protection and mechanical strength for the application.
The sign face shall be protected by weather tight, non-glare polycarbonate sheets. The sign enclosure and the equipment housed within shall be protected from moisture, rain, snow, sun radiation, dust, and dirt.

13.3 Communication Interface Requirements
The wayside and terminal signs shall be configurable to communicate with the TIN using a number of modes including fiber optics, cellular, private-radio, leased line, and Wi-Fi. The communication method for each individual sign will be determined on the installation location, radio signal strength, proximity to existing fiber optics, reliability and on-going service cost. The Contractor shall explain the feasibility of configuring the proposed signage to use the above mentioned modes of communication.

13.4 Installation Requirements
The Contractor shall be responsible for the installation and testing of all wayside and terminal display units. Contractor shall obtain all necessary permits and licenses and coordinate all installation activities. The enclosures for both units shall be constructed to allow for multiple installation configurations including, but not limited to hanging from the bus shelter roof, pole, and wall mounted.

13.5 Test Requirements
Testing of the signs shall be carried out in conjunction with testing of the TIN.

13.5.1 Factory Acceptance Testing
Factory Acceptance Testing shall be carried out at the Supplier's facilities prior to the delivery of the sign. The following test components are mandatory:

- Demonstration of maintenance access door operation.
- Demonstration of all matrix display pixels activated/deactivated in alternating mode using a test pattern for minimum 15 minutes.
- Demonstration of uniformity of light intensity and color, using a calibrated photometer.
- Confirmation of compliance with the luminance and contrast ratio specifications.
- Continuous operation of the LED displays over 168 hours using a checker board pattern change every 15 minutes. Any pixels which fail during this test shall be replaced and the complete test shall be repeated.
- Continuous operation of the LCD/plasma display Over a 40 hour period using a changing display or test pattern.
- A visual check shall be made to ensure that all components, modules, printed circuit boards and subassemblies are free from any physical defects such as cracking, scaling, poor fastening, incorrect component values, etc.
- Field conditions shall be simulated by connecting display units with the same technology and compatible configuration to the TIN while a the City Transit Maintenance Facility.
- The photosensors shall be exposed to a range of lighting conditions from darkness to bright light. The luminance levels shall be recorded.

- The Controller Unit shall be demonstrated to switch the pixels to the night range when the photosensor is disconnected or failed.
- Initiation of all commands required in the software specifications. The Controller Unit must respond correctly within 5 seconds of issuing the command and must transmit the correct reply.
- Downloading of messages shall be carried out using all variations of attributes or other variables.
- Recovery of all messages from the appropriate memory slots (if applicable) shall be demonstrated at least two (2) times.
- The effects of communications and power failures shall be demonstrated at random.
- All diagnostic functions and central computer functions specified in the specification shall be demonstrated.

Failure of any test shall require a complete repeat of that test. Any failed components detected during the Factory Acceptance Testing shall be repaired or replaced in the factory prior to delivery and installation of the sign. All failed components shall be retested upon their repair or replacement. The Contractor is responsible for any re-test or design modification of the displays to satisfy the specification and test criteria.

Appendix A – Abbreviations, Acronyms, and Terms

802.11 A family of wireless communications protocol standards used for short-range wireless local area networks.

ADA Americans with Disabilities Act – addresses federal requirements for facilities to accommodate individuals with disabilities.

Amps Amperes.

ANSI American National Standards Institute.

APC Automatic Passenger Counter.

APTS Advanced Public Transportation System.

API Application Program Interface.

ASCII American Standard Code for Information Interchange – a widely used binary code for text as well as communications and printer control.

ASTM American Society for Testing and Materials.

ATEC Allison Transmission Electronic Control – a computerized electronic transmission control system.

ATIS Advanced Traveler Information System.

ASU Application Software Updates.

AVL Automatic Vehicle Location.

Base Station A fixed-end radio transmitter/receiver for one channel.

BASM Basic Application Software Maintenance.

Block Work performed by a revenue fixed-route vehicle between leaving and returning to a garage, depot, outstation, or other vehicle base.

BPS Bits per second -- The rate of transfer of data over a communications link.

Bus Operator A person who operates a fixed-route revenue transit vehicle.

C, C++ High-level, structured programming languages.

CAD Computer Aided Dispatch.

CapCom See ESC.

CCITT/ITU The International Telegraph and Telephone Consultative Committee/International Telecommunication Union.

CDPD Cellular Digital Packet Data.

Central Electronics Console Bank The radio equipment or device that is an interface between the radio console (also called a voice console or a primary radio system control facility) and the radio system.

Console A dispatch operating position consisting of one or more workstations and user interaction devices.

Contract The complete agreement between the two parties regarding, in this case, the procurement of a complete TIN, including all equipment, services, warranties, etc.

Contractor The party awarded the Contract to supply the TIN and related services.

COTS Commercial Off-The-Shelf Software.

CPU Central Processing Unit – the part of a computer that includes the circuits to interpret and execute program code.

CSMA/CD Carrier Sense, Multiple Access with Collision Detection.

CSU/DSU Channel Service Unit/Data Service Unit. The CSU is a device that connects a terminal to a digital line. Typically, the two devices are packaged as a single unit. The dSU is a device that performs protective and diagnostic functions for a telecommunications line. Think of it as a very high-powered and expensive modem.

CTCSS Continuous Tone Coded Squelch System.

DAT Acronym for digital audio tape, a type of magnetic tape that uses a scheme called helical scan to record data. A DAT cartridge is slightly larger than a credit card in width and height and contains a magnetic tape that can hold from 2 to 24 gigabytes of data. It can support data transfer rates of about 2 Mbps.

Data Dictionary A set of data descriptions that can be shared by several applications.

DB Decibel.

DC Direct current.

DDEC Detroit Diesel Electronic Controls – a computerized electronic engine governing and fuel injection system and onboard computer that that replaces mechanical controls and offers engine protection and self-diagnostics to identify malfunctions in its components as well as the ability to troubleshoot engine problems.

Deadhead Non-revenue movement of a revenue vehicle between trips.

Dispatcher The attendant using the TIN dispatch workstations for transit operations.

Display An organized presentation of data and display elements in a window intended to provide user access to specific functional capabilities.

Display Elements Basic elements that are used to construct all displays; such as fields, list boxes, scroll bars, radio buttons, etc.

DST Daylight Savings time.

ECM Electronic Control Module.

EIA Electronic Industries Association.

EMI Electromagnetic Interference – a naturally occurring phenomena when the electromagnetic field of one device disrupts, impedes or degrades the electromagnetic field of another device by coming into proximity with it, in computer technology, computer devices are susceptible to EMI because electromagnetic fields are a byproduct of passing electricity through a wire. Data lines that have not been properly shielded are susceptible to data corruption by EMI.

EEPROM Electronic Erasable PROM.

EPROM Erasable PROM.

Event An occurrence that is detected, recorded, and possibly annunciated by the TIN. Examples include emergency alarms, RTTs, data messages, and bus operator logon/logoff.

Extraboard 1.The bus operators who fill in for bus operators who are absent for any reason, as well as driving open runs and trips (including vacation and regular days off). 2.The daily list of assignments for these bus operators.

Extra Service Buses used for filling lines that are experiencing service delays or stoppages due to breakdowns. Also refers to extra lines added for special events.

FAT Factory Acceptance Test.

FCC Federal Communications Commission.

FDR Final Design Review.

Field Service Manager Personnel that manage Road Supervisors and Dispatchers.

Field Supervisor See Road Supervisor.

Fill-In Covering lost service with another bus and bus operator.

Fixed-End The location at which system equipment is permanently installed; as opposed to mobile.

Follower The next bus of the same route behind a given bus (see "Leader").

FTA Federal Transit Administration, the part of the US Department of Transportation involved with public transportation services .

Function Key A device, either a physical pushbutton, a function key on the keyboard, or a programmable function key or selection field on displays, that the user employs to interact with the computer system. The functionality of a function key may also be provided using a button on the Cursor Positioning Device.

Geocoding The conversion of bus stops, street addresses, intersections, and landmarks to geographic coordinates.

GHz Gigahertz.

GIS Geographic Information System – a system of computer hardware, software, and procedures designed to support the capture, management, manipulation, analysis, and display of spatially referenced data for solving complex planning and management problems.

GPS Global Positioning System – A satellite-based system developed by the Department of Defense for determining position anywhere on the earth using a special receiver known as a GPS receiver.

GUI Graphical User Interface.

Headway Scheduled time between two trips at a time point or timetable listing sorted in headway sequence.

HMI Human Machine Interface.

Hot, running hot A bus is ahead of schedule.

HVAC Heating, Ventilation, and Air Conditioning equipment.

Hz Hertz.

IEC International Electrotechnical Commission.

IEEE Institute of Electrical and Electronics Engineers.

I/O Input/Output - Pertaining to all hardware and activity that transfers data into or out of a processor.

ICD An Interface Control Document is a formal, comprehensive, detailed document used by technology companies to describe an interface between two devices or systems.

Incident An abnormal event that is documented by an Incident Report.

ISA Instrument Society of America.

ISO International Standards Organization.

ITS Intelligent Transportation Systems – refers to a wide range of advanced electronics, communications, control, and computer technologies applied to transportation. Designed to improve safety and productivity, reduce congestion and encourage transit use.

IVCU Intelligent Vehicle Control Unit – A computer in a mobile installation that integrates, monitors and controls vehicle devices; including the VCH, radio and other vehicle installed devices.

IVR Interactive Voice Response, a telephony technology in which someone uses a touch-tone telephone to interact with a database to acquire information from or enter data into the database.

kHz Kilohertz.

LAN Local Area Network.

Late Service A bus that is behind schedule.

Layover 1. Time scheduled to be spent waiting between trips at the end of a line or waiting for transfers at a layover zone or transit center 2. Layover Zone.

Layover Zone Designated place for layovers to occur.

LCD Liquid Crystal Display.

Leader A bus of the same route immediately ahead of a given bus (see "Follower").

LED Light Emitting Diode.

Loop Part of a route that is served by buses traveling in only one direction at a time, usually at the end of a line.

Local Workstation A workstation located at the central dispatch site.

Lost Time The time during which scheduled bus service does not occur. Lost time may be due to accident, equipment failure, lack of a bus operator, illness, medical emergency, police action or construction delays.

MCT Mobile Computer Terminal – a personal computer, typically a ruggedized laptop, that is installed in vehicles to provide certain CAD/AVL dispatch capabilities to road supervisors.

MDT Mobile Data Terminal – a display device (VCH) with computer processing capabilities (IVCU) that is used on board public and private transportation vehicles.

Missed pullout A bus missing its scheduled time of pullout due to either no bus operator or equipment problems.

Mobile Radio A radio transmitter/receiver installed in a vehicle.

Monitor A device used to display the output of a computer system.

MHz Megahertz.

MTBF The Mean Time Between Failures of a repairable item of hardware computed from its design considerations, historical data, and from the failure rate of its parts for the intended conditions of use.

MTTR The Mean Time required To Repair a repairable item of hardware computed from design considerations and historical data.

NEC National Electric Code.

NEMA National Electrical Manufacturers Association.

NFPA National Fire Protection Association.

NPSPAC National Public Safety Planning Advisory Committee.

NTCIP National Transportation Communications for ITS Protocol.

NTD National Transportation Database.

ODBC Open Database Connectivity.

OEM Original Equipment Manufacturer.

OSF Open Software Foundation.

OSHA Occupational Safety and Health Administration.

PA Public Address.

Paddle A description of a full day's service for an operator, including route description, scheduled times, and comments.

PC Personal Computer.

PDF Portable Document Format.

PDR Preliminary Design Review.

Peak AM or PM rush. A period of time requiring increased transit service.

Peak service Service during the AM or PM peak.

PPM Pages Per Minute.

Primary Radio System Control Facility A panel of switches and indicators, or a computer display, that is used to directly monitor and control a radio system voice communications, also called a voice console or radio console.

PROM Programmable Read Only Memory.

PRTT Priority-Request-to-Talk.

PTT Push-to-Talk.

Pullout 1.A bus leaving its garage 2.Scheduled time of a pullout.

Radio Control A panel of switches and indicators, or a computer display, that is used to directly monitor and control a radio system voice communications, also called a voice console or radio console.

Radio Dispatcher See Dispatcher.

RAS Remote Access Service.

RAM Random Access Memory.

RDBS Relational Database Server.

Relief Operator A bus operator who relieves other bus operators. Used for continuing service, without taking the bus out of service.

Remote Workstation An TIN workstation that must link to the TIN servers via the WAN infrastructure and, therefore, accesses those servers at less than LAN data rates.

Report A periodic or on-demand accumulation or summary of selected database and/or historical data that is compiled, sorted, formatted, and stored according to user and system administrator specified directions and parameters. A report may be printed, displayed on a monitor, and/or stored as a file for subsequent access.

Re-route (fixed route) 1.To send a bus off-route because of construction, accident, emergency, etc. May be scheduled or un-scheduled 2.A re-route description or map.

Revenue Service Trips scheduled to carry fare-paying passengers.

RF Radio Frequency.

RFP Request for Proposal.

ROM Read-Only Memory.

Road Call Dispatching mechanics with or without a replacement bus to a bus on the road that has had a mechanical failure or accident.

Road Supervisor Personnel assigned to monitor bus operations over a service area.

Route A predefined path through the service area for which bus stops and a time schedule are defined.

RS-232 EIA Recommended Standard 232 – serial data interface for computers and peripheral devices.

RS-422 Standard interfaces approved by the Electronic Industries Alliance (EIA) for connecting serial devices. The RS-422 and RS-423 standards are designed to replace the older RS-232 standard because they support higher data rates and greater immunity to electrical interference. RS-422 supports multipoint connections.

RS-485 An EIA standard for multipoint communications. It supports several types of connectors including DB-9 and DB-37. RS-485 is similar to RS-422 but can support more nodes per line because it uses lower-impedance drivers and receivers.

RTT Request-to-Talk.

Run Daily bus operator work assignment.

SAE Society of Automotive Engineers.

Schedule A list of planned arrival and/or departure times for each time point on a route, along with associated information, such as the route and time point names.

Screen The full physical display area of the display device.

Sharp, Running Sharp see – Hot.

SMR Specialized Mobile Radio.

SNMP Simple Network Management Protocol.

SQA Software Quality Assurance.

SQL Structured Query Language.

SWC Surge Withstand Capability.

System Administrator A privileged user who is ultimately responsible for overall administration and maintenance of the TIN, and for controlling access to the system by all other users.

System Operator A privileged user located at the Dispatch office who can manage certain operating parameters of the system that relate to dispatchers (i.e., schedule adherence thresholds) and operating certain maintenance functions (e.g., route/schedule import).

System User A user who interacts directly with the TIN via workstations or mobile equipment, see TIN user.

TCIP Transit Communications Interface Profiles.

TCP/IP Transmission Control Protocol/Internet Protocol.

TIGER Topologically Integrated Geographical Encoding and Referencing – a GIS map format.

Time Point A location on a bus route assigned scheduled arrival times.

TIN Transit Information Network – the name for the system described by this technical specification.

TIN User A user of the Transit Information Network.

Transfer 1.A passenger getting off one transit vehicle and getting onto another 2.The slip of paper denoting proof of cash or ticket payment.

Transit or Transportation Center A facility for timed transfers, with parking places for buses and shelter for passengers.

Trip One-way movement of a revenue vehicle between two points.

Trippers Short-duration supplemental vehicle movements, typically operating during peak operating periods.

TTFF Time To First Fix.

Turnback To turn a late bus around before the end of a scheduled trip in order to get it back on schedule.

UBC Universal Building Code

UHF Ultra High Frequency (300 Megahertz - 3 Gigahertz).

UL Underwriters Laboratories.

UPS Uninterruptible Power Supply.

V Volts.

VAN Vehicle Area Network.

VCH Vehicle Control Head.

VDC Volts DC.

VSU Voice Storage Unit.

VSWR Voltage Standing Wave Ratio.

WAN Wide Area Network.

WLAN Wireless Local Area Network.

Workstation A computer platform such as a networked personal computer having a monitor, mouse, and all associated operating system and TIN application software.

Work All labor, services, materials, equipment and software/firmware necessary to meet the requirements of the contract.

Window A defined display area on a screen.

Appendix B – Hardware and Workstation Specifications
At a minimum all proposed hardware must meet the following specifications:

- Rack mounted Dell Power Edge Servers - (2600-2800 series) running Windows 2003 platform
- 19 inch, four-post server racks
- Cisco networking equipment - (3560 POE switches, 2800 Series routers)
- Printers - HP
- Wiring - CAT 5e (data/voice), CAT 3 for voice
- Interconnect between sites - P2P T1's between every site and City Hall ~ Hub and Spoke design
- Phone system - NEC 2400 PBX and Cisco Call Manager 4.1x
- Primary protocols: TCP/IP
- Internet Pipe: 3MB shared

Bidders are strongly encouraged to propose the latest comparable hardware. All proposed hardware shall not be approaching or designated for "End of Life" (EOL) within 12 months of hardware installation.

Appendix C – City of Santa Clarita Wiring Standards

Purpose of Standards

The City of Santa Clarita has established a formal set of inside wiring standards to ensure their operational voice and data transmission systems within City-owned or operated buildings meets or exceeds their current and future transport speed requirements.

The City's wiring standards are intended provide the following operational and administrative benefits:

- Increase transmission speeds over defined distances
- Reduced operational wiring system maintenance
- Improved end user or customer satisfaction
- More efficient moves and changes (MAC)
- Greatly improved inventory control
- Significantly reduced number of single points of failure
- Standard wiring plan
- Standard transport hardware platform
- Greatly improved system design
- A neat and orderly wiring system that can be easily maintained
- Reduced operational costs through reduced maintenance
- Improved Information Resource employee productivity through reduced maintenance and the ability to re-deploy employees to pro-active functions
- Improved customer or client work productivity through reduced down time
- Provide an inside wiring system which will meet the needs of the City over the next five years

General Standards Requirements

The City of Santa Clarita wiring standards require that any additions or modifications to their system or any system that may be added to new buildings in the future meet or exceed all applicable federal, state and local fire, electrical and Operational Safety and Hazards Administration (OSHA) codes. As well as other standards that may be specified elsewhere within this document.

The City of Santa Clarita's standards will also appear in any bid specifications the City may issue with regard to modifying the existing inside wiring plant or installing new wiring plants.

For ease of reference, the standards document will be listed in the sequence the technologies would normally appear in the City's wiring system.

The standard contained in this document will apply to Category 3 voice and data systems and Enhanced Category 5 "CAT 5e" data systems.

Any new facilities will be built to Category 6 standards. Note: All ATT part numbers reference CAT5 wiring the equivalent part will be substituted during CAT5e and CAT 6 installs.

The City of Santa Clarita wiring system standards are not intended to design or define the type or design of the City's current or future Local Area Networks. Rather, they are intended to provide a broad-based platform from which the City may build and expand its networks within a building at minimal expense.

The City of Santa Clarita's standards are not intended to replace specific bid requests for wiring systems that may be required by the City. Each of these potential documents must be considered on their own or as may be otherwise referenced to these standards.

All contractors installing data wiring in a City of Santa Clarita facility must be Avaya Systimax Structural Cabling certified. This will be verified be referring to Avaya web site of certified installers.

Technical Standards For Voice Service or Line Cords

All service cables must meet or exceed the following standard specifications:

- Contain at least 28-gauge copper wire
- Contain 4 twisted pair
- Wire covering can be PVC
- Use standard 8 pin jack plugs
- Be designed for straight-through wiring
- Meet or exceed the specifications of AT&T - D8W voice and data cord

- Voice service cables will be installed within the modular furniture duct banks to ensure a neat installation
- Service cable will be kept as short as possible to ensure a neat installation
- Service cable must be compatible with an RJ11 jack

Technical Standards For Voice Service Cable Jacks

All voice service cable jacks (outlets) must meet or exceed the following standard specifications:

- Jacks must be capable of handling 8 pin voice or data connections
- Jack must be modular
- Outlets are required to be compatible with both Teflon" and PVC Category 3 wire
- Jack must be labeled or color coded to simplify wire installation Jack must be designed to accommodate secure wire interconnections
- Jack must be designed to be easily inserted into either a wall faceplate or a surface-mount faceplate
- Must meet or exceed all Category 3 wiring specifications
- Must meet or exceed the specification of an AT&T-MI IBH
- All voice jacks will be installed on the left side of the duplex faceplates and at the top of the multiple outlet faceplates
- Jack outlets must be installed with the City of Santa Clarita's specified faceplates in either an existing wall outlet box or surface mounting box or one installed at the time of installation
- Outlets must be snapped into each faceplate
- Station wiring must be cut so it fits snugly into the outlet connector

Technical Standards for Service Outlet Faceplates

The City of Santa Clarita requires faceplate outlet covers that meet or exceed the following standard specifications:

- AT&T - M12A duplex outlet faceplate
- AT&T - M13A triplex outlet faceplate
- AT&T - M14A quadplex outlet faceplate
- AT&T - M14A quadplex outlet faceplate
- AT&T - MI6A sixplex outlet faceplate
- AT&T - M28A eightplex outlet faceplate
- AT&T - MI3C modular furniture triplex outlet faceplate

Faceplates must be tightly affixed to either the wall or the flush mount box. All faceplates will be ivory colored unless otherwise required in a bid specification.

All faceplates will be marked by the City of Santa Clarita and/or its future contractor clearly indicating the station/terminal jack number

Technical Standards for Voice Station Cable

The City of Santa Clarita requires voice cable that meets or exceeds the following standard specifications:

- All voice cable installed in the City of Santa Clarita will be encapsulated in Teflon" or equivalent covering
- All voice station cable will include four pair, 24-gauge wiring
- All voice cable will be Category 3 or equal
- All voice cable must be a NTL IBDN Category 3 approved product equal to AT&T cable catalog number 107049421
- All voice cables will be installed as "Home Runs" between the voice jack and the MDF
- The use of voice station splices is strictly prohibited
- Voice cables must be terminated on a 110 block on the MDF end and specified jack outlet modules on the other end

- All voice cable will be encapsulated in a "white Teflon outer wire cover
- Cable must meet all applicable UL standards
- Cable must meet all existing or proposed FCC rules, regulations, and/or certification requirements
- Cable must meet or exceed all existing Federal, state, county, or city fire codes or life safety codes
- City standards require all fire wall penetrations be sealed with either 3M Fire Barrier CP 25N/S for ceilings, walls and conduit or CP25S/L for floors or equal product after every new cable pull. Other 3M products such as MPP-1 Fire Barrier Moldable Putty Pads, MPSS-2 Fire Barrier Moldable Putty Stix and 150 FireDam Caulk may be used as applicable.
- Voice station cable must be routed through open corridors and walk spaces to minimize service and employee disruption during moves and changes
- The City requires all contractors to leave a new jet line or pull string every time they pull a new cable. The existing cable layout is designed to minimize the number of ceiling tiles that must be removed to pull a new voice station cable
- Voice station cable must be routed in separate cable trays and cable hangers from data terminal cables
- To ensure accurate cable records and equipment inventory, the City of Santa Clarita requires updated records every time a new cable is pulled or a telephone number location moved. All voice station jack numbers are to be marked on a clean floor plan with corresponding telephone number. Where more than one telephone number is on a jack it must also be noted which is line 1, line 2, line 3, etc.
- An excel work sheet logging binder post numbers, riser numbers, and jack numbers must also be logged and updated for each telephone number.
- The City's standards require all voice station cable be routed around and/or significantly above any electrical lights, motors or Heating, Ventilation, or Air Conditioning systems (HVAC).
- Category 3 voice cable must be capable of data transmission up to 10 Mbs
- The City's standards require all voice station cabling be routed in rigid wall or flex conduit down the building walls. If a conduit is not already available, one should be installed. All contractors adding conduit to the City's building should use 3/4-inch conduit unless the City specifies otherwise. The City reserves the right to vary this standard when the existing building design prohibits the installation of conduits or service needs don't warrant a 3/4-inch conduit.
- No wall penetrations will be allowed unless a conduit is installed for the voice cables and one for the data cables. In those cases where there is only one voice and data cable, the same conduit may be used.
- All cable routes that support more than one data and voice cable will be routed using a cable hanger or conduit for data and one for voice.

Technical Standards for Voice Main Distribution Frame (MDF)

The City of Santa Clarita requires all voice station cabling be terminated on AT&T, 4 pair, 110 series termination systems, which meet or exceeds Category 3 standards specifications. These termination systems may include, but not be limited to, the following:

- Wiring blocks
- Patch cords
- Jumper troughs
- Patch cables Patch panel system backboards
- Optional "Test Connector Shoe"

- Connecting terminalsAll 110 blocks will be marked with the station or terminal identification numbers. The jack or station number will be the same on the terminal or station end as it is on the MDF end
- Existing consoles that require more than eight pairs for operation will not be terminated in the MDF
- All station cables will be identified on the MDF 110 block with the same number used on the station jack faceplate
- Standard cross-connects will be made between the MDF 110 blocks and the riser cable
- 110 termination blocks are located on the third floor in the wire room.

Technical Standards for Data Service Cable

The City of Santa Clarita requires standard data services cables that meet or exceed the following specifications:

- Must be compatible with all Category *5e* wiring systems and meet Category 5 total operational standards.
- Any new facilities will be built to Category 6 standards.
- Must be 4 pair cabling.
- Must meet or exceed the attenuation and performance characteristics of AT&T D8AU data rate cord
- Must be capable of data transmission up to 1000 Mbps (Gigabit Ethernet) within prescribed distance limitation
- Total length of service cable and patch cables should not exceed 10 meters or 30 feet
- Service cable must terminate in a RJ45 jack

Technical Standards for Data Service Cable Jacks

All data service cable jacks (outlets) must meet or exceed the following standard specifications:

- Jacks must be designed for 8 pin, 4 pair, Category 5e data systems
- Jack must be modular and easily plugged into the City's required standard faceplates
- Must be compatible with both "Teflon" and "PVC" Category *5e* wiring systems
- The jack or outlet must be labeled or color coded to facilitate the easy installation of data cable
- The jacks or outlets must be designed to ensure a tight wire/jack termination
- Jack must insert easily into either a wall faceplate or a surface-mount faceplate
- Jack must meet or exceed all Category 5e wiring standard specifications
- Jack must meet or exceed the specification of an AT&T
- All data jacks will be installed on the right side of the duplex outlets and at the bottom of the multiple outlet faceplates
- All data jacks must be clearly marked as Category 5e jacks. As an alternative, the City may elect to install distinctively colored jacks.
- Jack outlets installed with the City of Santa Clarita's specified faceplates must be neatly installed in an existing wall outlet box or hanger or a newly installed outlet hanger or surface-mounted jack box
- Outlets must be snapped into each faceplate
- Station wiring must be cut with the appropriate wire-cutting tool so that the wire cover fits snugly into the outlet connector

Technical Standards for Service Outlet Faceplates

The City of Santa Clarita requires faceplate outlet covers that meet or exceed the following standard specifications:

- AT&T - MI2A duplex outlet faceplate
- AT&T - MI3A triplex outlet faceplate
- AT&T - MI4A quadplex outlet faceplate
- AT&T - M16A sixplex outlet faceplate
- AT&T - M28A eightplex outlet faceplate
- AT&T - M13C modular furniture triplex outlet faceplate
- Faceplates must be tightly affixed to either the wall or the flush mount surface box
- All faceplates will be ivory colored unless otherwise required in a City bid specification.
- All faceplates will be marked, clearly indicating the station/terminal jack number

Technical Standards for Data Terminal Wiring

The City of Santa Clarita wiring standards require the data terminal cable meet or exceed the following specifications:

- The data cable used in the City of Santa Clarita's buildings must be high performance, high-speed transmission cable
- All data cable must be four pair, 24 gauge, unshielded cable
- Data terminal cable must be "Teflon" covered
- Data cable Teflon covering must be "blue"
- All data cable must support a 1000 Mbps rate Gigabit Ethernet with service terminal located within 100 meters or 328 feet
- Cable must be designed to support 1000 Mbps data rates within the prescribed distance limitations
- Cable must present a low measured capacitance
- Cable must present a low end to end resistance
- Cable must present an unbalanced circuit to the termination equipment
- Cable must present a very low near-end, pair to pair cross-talk signal level
- Cable must have reduced electromagnetic interference (EMI) levels across the entire length of the cable
- Specifications must meet or exceed EIA/TIA 568 performance standards
- Cable must meet all applicable UL standards
- Cable must meet all existing or proposed FCC rules, regulations, and/or certification requirements
- Cable must meet or exceed all existing Federal, state, county, or city fire codes or life safety codes
- Cable must meet or exceed AT&T 2061 cable specifications
- All data terminal cable will be installed as Home Runs" from the station jack to the data patch panel
- Splicing data terminal cables is absolutely prohibited
- Data terminal cable must be routed in separate cable trays and cable hangers from voice station cables
- Data terminal cables must be routed through open corridors and walk space to minimize service and employee disruption during moves and changes

City standards require all fire wall penetrations be sealed with either 3M Fire Barrier CP 25N/S for ceilings, walls and conduit or CP255/L for floors or equal product after every new cable pull. Other 3M products such as MPP-1 Fire Barrier Moldable Putty Pads, MPSS-2 Fire Barrier Moldable Putty Stix and 150 FireDam Caulk may be used as applicable.

The City requires all contractors to leave a new jet line or pull string every time they pull a new cable. The existing cable layout is designed to minimize the number of ceiling tiles that must be removed to pull a new data terminal cable

To ensure accurate cable records and equipment inventory, the City of Santa Clarita requires updated records every time a new cable is pulled. All data station jack numbers are to be marked on a clean floor plan.

The City's standards require all data terminal cable be routed around and/or significantly above any electrical lights, motors or Heating, Ventilation, or Air Conditioning systems (HVAC).

The City's standards require all data terminal cabling be routed in rigid wall or flex conduit down the building walls. If a conduit is not already available, one should be installed. All contractors adding conduit to the City's building should use 3/4-inch conduit unless the City specifies otherwise. The City reserves the right to vary this standard when the existing building design prohibits the installation of conduits or service needs don't warrant a 3/4-inch conduit.

No wall penetrations will be allowed unless a conduit is installed for the voice cables and one for the data cables. In those cases where there is only one voice and data cable, the same conduit may be used.

All cable routes that support more than one data and voice cable will be routed using a cable hanger or conduit for data and one for voice.

Technical Standards for Data Main Distribution Frame (MDF)

The City of Santa Clarita's MDF will include termination of all data terminal cable on Category 5 patch panels that meet or exceed the following specifications:

- All panels must be certified as being compliant with Category 5e performance standards
- All patch panels must be designed to accommodate 48 ports
- All patch panels must be designed to handle 4 pair, 24-gauge cable
- termination through a standard RJ45 connector
- All jack panels must be 19-inch rack mountable
- All jack panels must be equipped with mounting screws
- All jack panels must be equipped with blank filler panes where required

Technical Standards for Cable Trays and Racks

The City of Santa Clarita's wiring standards dictate that all major cable runs be supported by a cable or trays that meet or exceed the following specifications:

- The City of Santa Clarita's wiring standards require center-hung aluminum cable trays
- Cable trays are required to support I 50#/ft or more over each 16 ft section
- Cable tray are required to meet or exceed the 1991 NEMA standards
- Cable trays must be designed for an air plenum ceiling, where the City of Santa Clarita is using plenum cable
- The City of Santa Clarita requires cable trays that will allow easy access through a spine and rung design
- Cable trays should come in 12-foot sections or as may be specified by the City of Santa Clarita
- All jack panels must be installed with a horizontal wire management panel above and below each 48 port jack field
- All jack panels must be equipped with enough vertical surface wire management brackets to accommodate the total number of pairs that need to be routed up and down the 19-inch rack
- All jack panels must be mounted in an Anixter Model 099509, 19 inch by 84 inch brushed aluminum rack
- All 19 inch racks will be bolted to the floor in four different places and attached to the wall with at least two brackets at the top of the rack. Multiple racks may be bolted together, when space and stability dictate

- The City of Santa Clarita's wiring system standards require cable racks, cable trays or cable ladders be used within any major equipment or service area
- The City of Santa Clarita requires cable trays that are no more than 12 by inches wide by 4 inches deep
- Cable trays must be center hung
- Tray must provide easy cable ingress and egress
- Cable tray rungs must be easily removed or replaced
- Cable trays must be expandable
- Cable trays provided the City of Santa Clarita must meet or exceed the specifications of the ATLAS CABLE TRAY, model number A03 1212

Appendix D – Fleet List and Configuration

	BUS #	YEAR	TYPE	FUEL	LEGNTH	FAREBOX	# OF DOORS	ENGINE CONTROLER	TRANSMISSION CONTROLER	ELECTRICAL SYSTEM
1	118	1992	Gillig Phantom	Diesel	35'	Cubic/GFI	2	DDC6V9.2DDEC I	H750 ALLISON ELECT	STANDARD
2	128	1997	Gillig Phantom	Diesel	40'	Cubic/GFI	2	DDC S50, DDEC II	ALLISON B400R	STANDARD
3	129	1997	Gillig Phantom	Diesel	40'	Cubic/GFI	2	DDC S50, DDEC II	ALLISON B400R	STANDARD
4	130	1997	Gillig Phantom	Diesel	40'	Cubic/GFI	2	DDC S50, DDEC II	ALLISON B400R	STANDARD
5	131	1997	Gillig Phantom	Diesel	40'	Cubic/GFI	2	DDC S50, DDEC II	ALLISON B400R	STANDARD
6	132	1997	Gillig Phantom	Diesel	40'	Cubic/GFI	2	DDC S50, DDEC II	ALLISON B400R	STANDARD
7	133	1997	Gillig Phantom	Diesel	40'	Cubic/GFI	2	DDC S50, DDEC II	ALLISON B400R	STANDARD
8	134	1997	Gillig Phantom	Diesel	40'	Cubic/GFI	2	DDC S50, DDEC II	ALLISON B400R	STANDARD
9	141	2000	Gillig Phantom	Diesel	30'	Cubic/GFI	2	CUMMINS ISC	ALLISON B300R	STANDARD
10	142	2000	Gillig Phantom	Diesel	30'	Cubic/GFI	2	CUMMINS ISC	ALLISON B300R	STANDARD
11	143	2000	Gillig Phantom	Diesel	30'	Cubic/GFI	2	CUMMINS ISC	ALLISON B300R	STANDARD
12	144	2000	Gillig Phantom	Diesel	30'	Cubic/GFI	2	CUMMINS ISC	ALLISON B300R	STANDARD
13	145	2000	Gillig Phantom	Diesel	30'	Cubic/GFI	2	CUMMINS ISC	ALLISON B300R	STANDARD
14	146	2000	Gillig Phantom	Diesel	30'	Cubic/GFI	2	CUMMINS ISC	ALLISON B300R	STANDARD
15	147	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
16	148	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
17	149	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
18	150	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
19	151	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
20	152	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
21	153	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
22	154	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B300R	STANDARD
23	155	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
24	157	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
25	158	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
26	159	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
27	160	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
28	161	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
29	162	2000	Gillig Phantom	Diesel	40'	Cubic/GFI	2	CUMMINS ISM	ALLISON B400R	STANDARD
30	163	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
31	165	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
32	165	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
33	166	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
34	167	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
35	168	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
36	169	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
37	170	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
38	171	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
39	172	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
40	173	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
41	174	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
42	175	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
43	176	2005	Newflyer C40LF	CNG	40'	Cubic/GFI	2	CUMMINS B-PLUS GAS	ALLISON B400R	I/O MULTIPLEX
44	177	2007	Nabi 60	CNG	60'	Cubic/GFI	2	CUMMINS L PLUS GAS	ALLISON B500R	I/O MULTIPLEX
45	178	2007	Nabi 60	CNG	60'	Cubic/GFI	2	CUMMINS L PLUS GAS	ALLISON B500R	I/O MULTIPLEX
46	226	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
47	227	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
48	228	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
49	229	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
50	231	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
51	232	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
52	233	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
53	234	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
54	235	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
55	236	1998	MCI	Diesel	40'	Cubic/GFI	1	DDC S60, DDEC II	ALLISON B500R	STANDARD
56	237	2001	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60, DDECIII	ALLISON B500R	I/O MULTIPLEX
57	238	2001	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60, DDECIII	ALLISON B500R	I/O MULTIPLEX
58	239	2001	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60, DDECIII	ALLISON B500R	I/O MULTIPLEX
59	240	2001	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60, DDECIII	ALLISON B500R	I/O MULTIPLEX
60	241	2001	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60, DDECIII	ALLISON B500R	I/O MULTIPLEX
61	242	2004	MCI D4000	Diesel	45'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
62	243	2004	MCI D4000	Diesel	45'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
63	244	2004	MCI D4000	Diesel	45'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
64	245	2004	MCI D4000	Diesel	45'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
65	246	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
66	247	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
67	248	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
68	249	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
69	250	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
70	251	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
71	252	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
72	253	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX
73	254	2004	MCI D4000	Diesel	40'	Cubic/GFI	1	DDC S60G, DDEC IV	ALLISON B500R	I/O MULTIPLEX

Appendix E – Peak Loading Conditions
TIN PERFORMANCE TESTS
This appendix defines the one-hour peak load performance testing conditions that shall be applied during the factory and field tests. The one hour peak load performance test shall be performed by the Contractor to prove that the TIN meets all specified processing utilization, spare capacity, and timing requirements when it is supporting all TIN functions and TIN Users while simultaneously monitoring and communicating with the peak number of revenue and non-revenue vehicles that it will be required to support.

All specified timing requirements shall be met during this peak load testing including, but not limited to, the TIN display response times, event message availability times, vehicle data reporting rates, and the TIN display update times. The TIN processing load to be performed during the one-hour peak load performance tests is defined in the table below.

The peak load performance test conducted during the factory testing shall utilize all the TIN hardware and software installed in the factory. The loading imposed by the TIN hardware and software not installed in the factory shall be simulated.

The peak load performance test conducted during the field-testing shall utilize all the TIN hardware and software being implemented at that time. The loading imposed by the TIN hardware and software not installed at that time shall be simulated.

The peak load performance test shall include loading of the maximum number of revenue and non-revenue vehicles that are to be supported by the configuration being tested. The loading associated with vehicles that have not been installed at the time of the testing shall be simulated.

Test Configuration
All peak load performance tests shall be conducted with all the TIN hardware and software operational and all installed TIN workstations connected and operational. The TIN shall be initialized as follows in preparation for the peak load performance test scenario:

a) Verify that all equipment and all the TIN functions are operational.

b) Verify that the peak load performance testing correctly reflects the required configuration.

c) Install and test hardware and software necessary to simulate loading for the required peak number of revenue and non-revenue vehicles.

d) Install all test hardware and software necessary to simulate the loading from all required data exchanges, system interfaces and functions that are not yet implemented.

e) Install all test hardware and software necessary to simulate TIN workstation loading for the ultimate number of workstations.

f) Provide all hardware and software required to measure update times of the TIN displays, response times to the TIN User actions such as display requests, times from detection of events to the availability of the events for display and storage, vehicle reporting periodicity, and other specified performance parameters.

g) Define procedures and personnel assignments required to conduct the peak load performance testing.

Display Requirements
The TIN displays requested and actions performed throughout the peak loading performance testing shall be a mixture of different displays and actions that reflect actual typical workstation use. For dual monitor workstations, the geographic map display shall be presented on one monitor and the remaining monitor shall be used for requesting all other displays and performing any actions not requiring the use of the geographic map display.

One Hour Peak Load Performance Test Loading
This table defines the peak level of the TIN activity expected for a typical hour during the morning rush. This level of loading shall be executed during the one-hour peak load performance test to demonstrate that the TIN meets all specified performance, utilization, capacity, and timing criteria.

The term "As Specified/Designed" means that the function listed shall be performed in accordance with the specified requirements and the approved design implemented by the Contractor. The term "As Required" means that the function listed shall be performed as necessary for the other actions or events that occur during the peak load performance tests.

Task Description	Loading
Operating System	As Required
Restart/Failover	As Required
Interfaces	
Data Exchanges with other computer systems	As required by application
Dispatcher Initiated Actions and Communications	
Dispatcher Logout and Dispatcher Login	3 logouts and 3 logins
Voice call to individual vehicles	25
Voice call to a group of 25 vehicles	5
Voice call to all the City vehicles	1
Text (free form) message transfer to individual vehicles and responses from these vehicles (the average data message length shall be 150 characters)	20
Text message transfer to a group of 25 vehicles and responses from these vehicles (the average data message length shall be 150 characters)	3
Reference information retrieval: route schedule lookup	4
Reference information retrieval: display an employee list	2

Task Description	Loading
Bus Operator Initiated Communications	
Bus Operator Log-ins	70
Emergency Alarms	2
Bus Operator and Vehicle Equipment Initiated Data Communications	30
Other TIN Functions and User Actions	
TIN User Login (besides the Dispatchers	3
Automatic Vehicle Location Monitoring	Track and report location and status of 70 revenue and 10 non-revenue vehicles at the required reporting interval. Fifteen percent of the revenue vehicles shall be off-schedule and 3 percent shall be off-route.
TIN User Display Requests	7 per workstation
Geographic Map Display Scaling and Translation Operations	3 per workstation
Display Updates	As required for events, user actions and specification requirements
Road Supervisor requests for vehicle, route, and other data via their MCTs, if the MCT option is selected. A representative mixture of available information shall be initiated.	2 per Road Supervisor MCT
Road Supervisor initiated text data messages to individual vehicles and responses from these vehicles (the average data message length shall be 150 characters), if the MCT option is selected.	3 per Road Supervisor MCT
Reporting	
Recording and entry of data required for reports	As Required

Reports	Generate 1 report per workstation
Incident Reports	Open, complete the data entry for, and close 2 incident report2 per Dispatcher workstation

Information Storage and Retrieval

| Information Storage	Collect all historical data generated during the performance test.
User retrieval requests involving queries of 3 or more tables	3 total
Playback	Playback of a 15 minute segment of historical data for at least 3 vehicles using the Historical Playback function

Appendix F – Map of Service Area

City of Santa Clarita Transit System Map
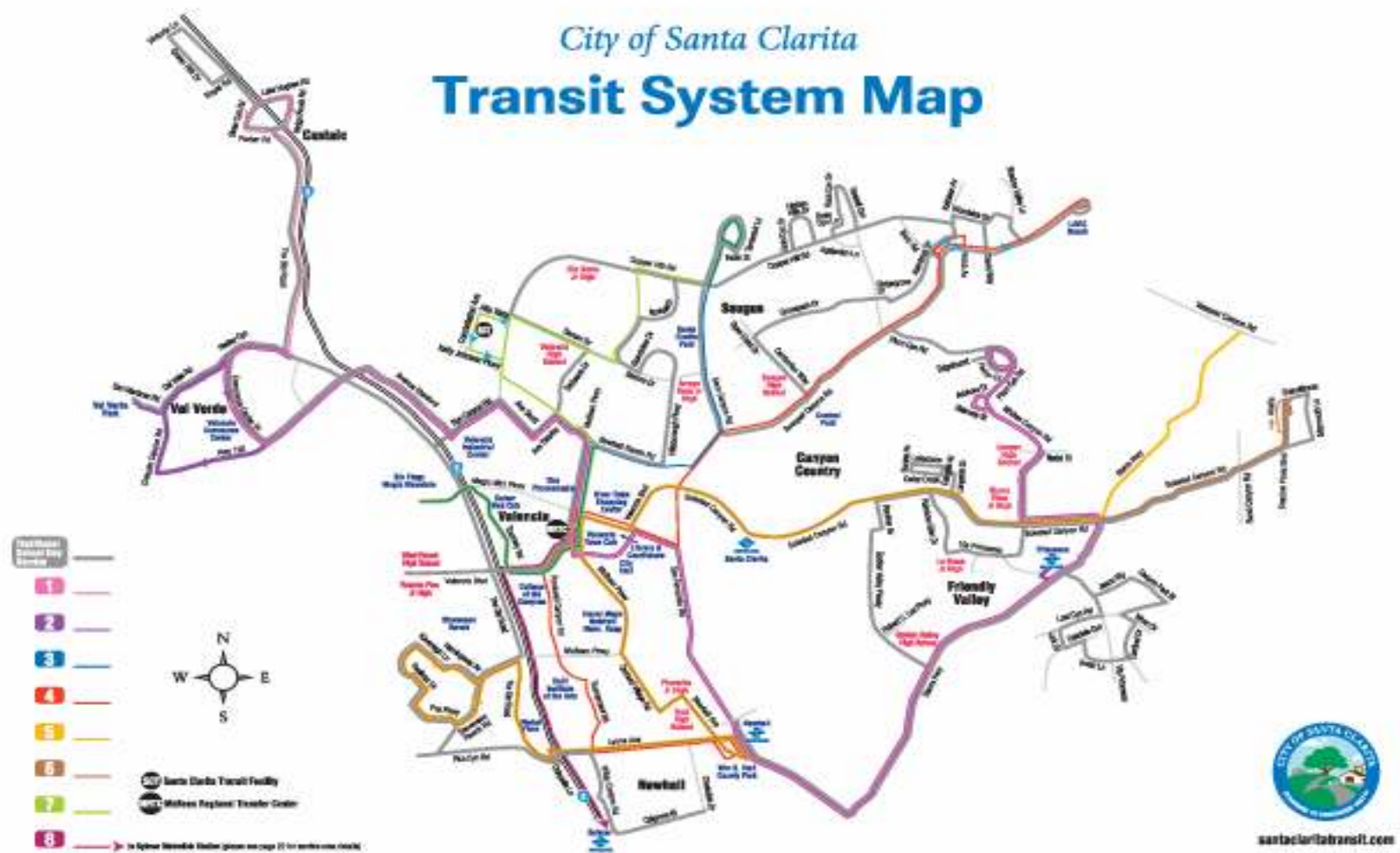
Appendix G – Diagram of City's Existing WAN
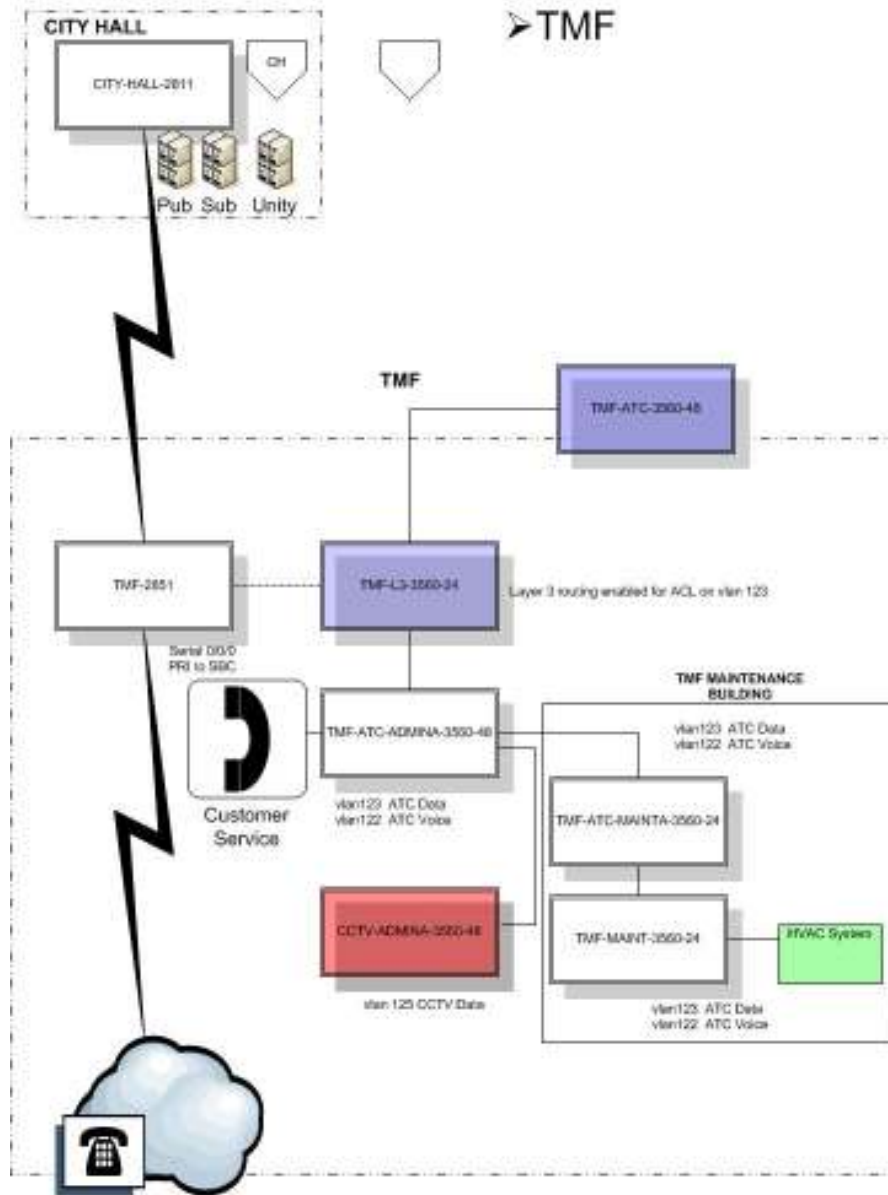
Current network connection environment from the TMF (28250 Constellation Road) to City Hall (23920 Valencia Blvd) entails one (1) point to point T1 connections. Standard PRI connection and one (1) Cisco 2851 Cisco Gateway at the TMF provide routing, PRI connection to AT&T, and data/voice connection to City Hall. The Cisco Call Managers, Unity Voicemail system, and Metropolis Call Accounting system are enclosed in a temperature controlled room at the City Hall complex. Connection from City Hall to the TMF is handled through one (1) Cisco 2811 which also provides connections to the NEC NEAX 2400 (QSIG) at City Hall and a remote Community Center.

Appendix H – Current VoIP Phone System Specifications
The phone system installed at the City of Santa Clarita's Transit Maintenance Facility is the Cisco VoIP phone system. The system consists of 10 agent licenses for IP Contact Center (IPCC) with auto-attendant features and Unity Voicemail are handled by (2) Call Managers (1 Publisher and 1 Subscriber) and (1) Unity server, which are located in City of Santa Clarita City Hall building at 23920 Valencia Blvd, Santa Clarita CA 91355. All Agent computers and phones models (Cisco 7940's and 7960's) are provided by the City. The City desires a configured IPCC Express system to handle all calls for reporting, analysis, and real time viewing of call data for day to day processes and operations.
Cisco Call Manager (4.1) and Unity (4.0) hardware specifications:

- Publisher - Cisco MCS 7825 1U P4 3.0GHz 1Gb RAM, 80 Gb HD - 60 Gb Free - Win2k sp4
- Subscriber - Cisco MCS 7825 1U P4 3.0GHz 1Gb RAM, 80 Gb HD - 62.5 Gb Free - Win2k sp4
- Unity - Cisco MCS 7835 2U Xeon 3.4GHz 2Gb RAM, 80 Gb HD - 55 Gb Free - Win2k sp4

Current network connection environment from the TMF (28250 Constellation Road) to City Hall (23920 Valencia Blvd) entails (1) point to point T1 connections. Standard PRI connection and (1) Cisco 2851 Cisco Gateway at the TMF provide routing, PRI connection to AT&T, and data/voice connection to City Hall. The Cisco Call Managers, Unity Voicemail system, and Metropolis Call Accounting system are enclosed in a temperature controlled room at the City Hall complex.
Connection from City Hall to the TMF is handled through (1) Cisco 2811 which also provides connections to the NEC NEAX 2400 (QSIG) at City Hall and a remote Community Center.

Appendix I – Charges and Incentives

Charges

Change in project manager or key team members

In the event that a proposed project manager is replaced or no longer available for this project on a full time basis, the contractor shall pay the City the sum of $5,000.00. In the event key team members are no longer available, the Contractor will pay the City the sum of $2,500 per replacement. Key team members include project/system engineer, software engineer and key personnel for any and all proposed sub-contractors.

Project timeline

It is agreed by the parties to the contract that time is of the essence, and in the event of 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 beyond authorized extensions will require the Contractor to pay to the City the sum of $100.00 for each calendar day's delay in delivery or completion beyond the dates in the negotiated delivery schedule.

Missed meetings

Project management and communication is critical to the successful and timely completion of this project. In the event the Contractor's project manager is unable to attend more than two meetings with the City, the Contractor will be required to pay the City the sum of $500.00 for each subsequent unexcused meeting.

Hardware failure

In the event that any hardware provided by the Contractor experiences the same error, malfunction, or failure more than three times prior to final acceptance by the City, the Contractor will be required to replace the faulty equipment with a new item of comparable or superior specifications. In addition, if any Contractor provided hardware experiences three or more of the same failure, the Contractor will pay the City $150.00 per calendar day until the equipment is replaced with a new, permanent product.

Software failure

In the event that any software developed or provided by the Contractor experiences the same error, malfunction, or failure more than three times prior to final acceptance by the City, the Contractor will pay the City $150.00 per calendar day until the error has been corrected. In the event the software continues to experience the same error after steps have been taken correct it, the sum due shall increase to $250.00 per day until the problem is resolved.

Incentives

Reliability Testing

In the event the contractor completes all required testing for each phase without failures that would require the Contractor to restart the process. The Contractor will be entitled to the following incentive payments:

- Field performance test $500.00
- Communication coverage test $1,000.00
- Mini fleet test $1,000.00
- Availability test $1,000.00
- Acceptance test $2,000.00

The Contractor shall pay to the City, or have withheld from monies due it, the charges which become due to the City. Incentive payments shall added to any monies due, or which thereafter become due, to the bidder under this contract.

Appendix J - DAR Specifications
Paratransit Computer Aided Scheduling, Dispatch and AVL System

Eligibility/Registration

All customer registrations have an expiration date and it is the customer responsibility to renew registration 30-days prior to the expiration date. The proposed improved system shall track customer registration expiration dates and notify staff 60 days before expiration.

Elderly: defined as sixty years of age and older. Verification of both age and residency is required. A photocopy of official California Identification is used to provide proof of both. Visitors to the Santa Clarita Valley may use the system for up to one month without proof of residency.

Disabled: Must be registered and certified Americans with Disabilities Act (ADA) eligible by Access Services Inc. before using the service.

General Public Dial-A-Ride: available after 6:00 p.m. seven days a week. Requires registration of local address and telephone number. Following customer registration a customer ID is issued.

Ride Requests

Passengers are currently advised that travel time can be one to one and one half hours. Scheduled pickup times can be up to 15 minutes early or as much as 15 minutes late. Current policy is that a driver will wait 5 minutes for a rider after arriving at a pickup location. The proposed system shall be configurable to adjust pick-up window times. After five minutes the driver will mark the individual as a no-show and then depart. The driver's schedule allows five minutes for the passenger to board the vehicle.

Note: no shows are a significant problem (7%) for the DAR services and cancellations (17%) also reduce its efficiency.

The following information is requested/registered/checked when trips are scheduled. At a minimum:

- The System shall log Rider's ID number
- The System shall log Rider's first and last name
- The System shall log an attendant, child or companion accompanying the rider
- The System shall log rider's exact address, including apartment number, building or business name if appropriate
- The System shall log exact pickup location if different from rider's address
- The System shall log the exact address of rider's destination, including suite number, building, or business name and phone number if appropriate
- The System shall log rider's requested pickup time and appointment time (if applicable)
- The System shall log wheelchair or other mobility device
- The System shall log payment type i.e. cash or reduced fare/punch ticket
- The System shall log special reasonable accommodations.

Cancellations/No-Shows

Riders are asked to call in cancellations at least two hours in advance of their ready time. Passengers who consistently fail to cancel reserved trips may face penalties such as restricted use of the service.

No shows categories are defined as follows:

- Canceling a trip less than two hours before the scheduled pickup time
- Canceling a trip at the time the driver arrives at the pickup site
- When a rider does not show for a scheduled ride within 5 minutes after the driver has arrived at the pickup location

The new system shall track no-shows by category and automatically cancel return rides.

The new system shall track no-show history by rider ID and identify when verbal warnings, written warnings and suspensions of service are due.

The new system shall be capable of logging, complaints and violations and relating them to use of the services.

The new system shall be configurable to changing policies regarding no shows and late cancellations.

Radio Communications

Because of the potential for the occasional disruption of the data system and/or the occasional loss of data communications with a single vehicle, the system shall have the capability to store location history and events on-board the vehicle in the case of the loss of data communication with central.

Vendors must perform a coverage test once the equipment has been installed. Vendors should provide a test plan, execute the test, and provide a test report for the coverage test. The coverage test should exercise both voice and data communications on all dial-a-ride vehicles.

As a part of the Proposal, the Proposer should detail their method for storing data during interruptions in communications and the amount of data (in operational minutes) that can be successfully stored and retrieved as proposed and priced.

Proposers are requested to provide evidence that their proposed solution has sufficient bandwidth to accommodate operations with a 100% margin.

The City of Santa Clarita is looking for a best value solution. Proposers are free to consider solutions that include using cellular, radio, or a combination of the two. Tiered proposals providing options may be submitted.

Automatic Vehicle Location System (AVL)

A Global Positioning System (GPS) receiver shall be included in the equipment complement on board each vehicle. Each vehicle shall be equipped with a GPS antenna (mounted on the outside roof) as well as any interfaces and filters to ensure a proper and complete operating system. The AVL system shall include differential GPS correction and dead reckoning utilizing the odometer and inertial sensor to fill in coverage holes in GPS. Proposers should explain their location systems, licensing requirements and operation. All systems that require licensing by the FCC must be licensable by FCC.

The location system shall provide horizontal position accuracy to within 10 ft (1-sigma). The on-board bus electronics shall be capable of providing location, velocity, and time to central when polled.

Geographic Information System

The City has a geographic information system (GIS) that maintains a variety of city data. The system is based on ESRI's software programs. The map is based on the Los Angeles County parcels. For street information the map uses Thomas Brothers Street Centerline. The entire mapping is relative to the State Plane Datum NAD83 zone 5. The units are in feet.

The data contained in the system is arranged in over 300 layers. Layers have been created to include transit data, specifically fixed-routes and bus stop locations.

The Project shall be compatible with and utilize the City GIS systems and databases.

Functional Requirements

At a minimum, the proposed paratransit scheduling and dispatch system shall have the following features and functions:

- Shall have real-time scheduling and dispatch capability.
- Shall be capable of real-time passenger manifest updates to the MTD.
- Shall incorporate real-time AVL functions.
- Shall be compatible with the City's GIS data.
- Shall have geographical coding capability of addresses.
- Shall have a client, driver and fleet databases.
- Shall be capable of wireless WAN communications between central and the transit vehicle.
- Shall have standard transit reporting capability.
- Shall have documented protocols for interfaces with external systems such as an IVR and or Trip Planner
- Shall track Schedule Adherence
- Software shall identify vehicles that are running hot or cold based on configurable parameters.

- Paratransit software shall store and use dispatcher-specified blocks of time during the day for specific vehicles to be designated as available or unavailable for accepting demand response rider requests.
- There shall be a means of filtering the range of possible addresses that are displayed on the call-taking screen in order to reduce the number of options that must be sorted through to quickly geocode a desired origin or destination and verify that the trip is within the Paratransit service area.
- Fixed trips such as scheduled connections with trains or fixed route service, school trippers or other trips so designated by the dispatcher shall automatically be displayed on the driver's manifest.
- When there is idle time in the schedule, the dispatcher shall have the ability to select a designated spot for the driver to wait.
- The location and time shall be included in the driver's manifest for the day.
- The software shall be able to schedule demand response trips and estimate travel time to the next pick-up or drop-off in order to maximize in-service time and minimize down time.
- The ride-booking function shall prompt the dispatcher to ask the caller about the potential need for use of a wheelchair tie-down and record that in the caller's permanent file.
- The dispatch software shall keep track of the number of tie-downs on each vehicle and the number of tie-downs in use at all times throughout the service day.
- The driver's manifest shall include a note when a pick-up or drop-off passenger will be using a tie-down and/or lift.
- When a caller is confirmed to need a tie-down, that information shall automatically be reflected so the dispatcher can see that, when the passenger pick-up is confirmed, the tie-down use is automatically updated.
- When the passenger is dropped off, the tie-down availability shall be updated to reflect the new conditions.
- The system shall provide a means for riders who do not have a private telephone number to offer a temporary number at which they can be reached for a callback if necessary.
- Dispatch software shall be able to schedule and retain trips in advance of travel dates to include but not be limited to 14 days in advance.
- The dispatcher shall be able to change the advance-reservation acceptance parameters in response to policy decisions.
- The driver's manifest shall display standing rides that pertain to that particular manifest.
- Dispatch software shall be able to evaluate trip feasibility to service immediate-need trip requests and confirm the trip.
- Dispatch software shall be able to evaluate return-trip request with initial trip to ensure that both directions can be served prior to confirming the trip.
- The call takers shall be able to look up and confirm information pertaining to any and all pending trips scheduled by a caller.
- Vehicles shall be equipped with MDTs for the receipt of manifests, pick-up or drop-off times and locations, and information regarding tie-down needs.
- Information needed for trip booking, cancellation, scheduling, insertion and sequencing or optimization shall be collected, processed and stored at the dispatch center.
- The system shall be able to track vehicle locations by discrete events or on demand by dispatcher-initiated polling.
- Dispatchers shall be able to change the default polling frequency or customize the polling for specific vehicles in response to monitoring needs.
- Drivers or vehicles shall be equipped with devices that will record the necessary passenger and trip information that is collected or reported while in the vehicle.

- Drivers shall be able to send "time and place right now" messages to the operations center by pressing a single button. (Driver-initiated polling).
- The mapping software shall be able to find locations based on lat/long GPS data, address or name of landmark or aliases for popular landmarks.
- The current location and next stop(s) information shall be stored to support street-by-street routing in the event the driver gets lost.
- Mapping and itinerary software shall be able to calculate and display or transmit street-by-street routings to drivers and display for dispatchers.
- Drivers shall have on-board equipment that will receive street-by-street routings visually and audibly
- Street-by-street routing information shall only be provided in response to a request from the driver.
- All reserved and field-inserted trip data shall be archived in a searchable database.

- Data communications and instructions between drivers and dispatchers shall be dated and time-stamped and archived.
- The system shall enable the dispatcher to enter anecdotal notations of difficult calls or unusual circumstances, dated and time-stamped and archived for later research and evaluation

Because of the potential for the occasional disruption of the data system and/or the occasional loss of data communications with a single vehicle, the system shall have the capability to store location history and events onboard the vehicle in the case of loss of data communication with central. As a part of its Proposal, the Proposer is required to detail its method of accomplishing this and the amount of data (in system operational minutes) that can be successfully stored and retrieved as proposed and priced.

At a minimum, the system shall provide the onboard capacity to store 7 days of route & schedule adherence data in the event a normal download cannot be completed. As a part of its Proposal, the Proposer is required to describe their approach to download onboard stored information to central and to provide any necessary communications equipment (both on the bus and at central) that will enable the collection of onboard stored data when the bus returns to the yard. The approach should discuss such things as triggering mechanisms to initiate data download and bandwidth required.

All voice communications shall be digitally recorded, date/time stamped and archived for retrieval. even days of digital voice recordings shall be stored online for easy access.

The system shall archive any vehicle monitoring divide status along with a date/time stamp.

Archived data shall be stored and available in a database.

The City of Santa Clarita desires to have standardized reports created from data in the archival database. One such report will be in form for submittal to the National Transit database. The Proposer shall conduct discussions with the City of Santa Clarita to establish the content and format of ten reports. The system shall be delivered with these ten report forms created.

Riders shall be able to request modifications to their travel plans by calling the dispatcher.

Drivers' equipment shall support the need to communicate passenger-initiated requests for trip changes through voice or data, using canned messages and or free-form messages typed in on a QWERTY keyboard or touch pad.

The dispatch center shall be able to receive change orders directly from riders or callers and relay requests to the dispatcher to accept or reject the requested change.

Drivers shall be able to receive updated manifests that reflect changes in the stop pattern or trip times for the day.

Scheduling/dispatching software shall permit "soft" scheduling that permits the dispatcher to adjust trip times slightly in order to evaluate and accommodate (or reject) passenger requests for time adjustments on trips that were previously reserved and scheduled.

Software shall store travel times for common trips including times between neighborhood stops or curb-to-curb trips, and modify projected travel time estimates based on historical experience.

Dispatch software shall estimate ride time for each rider and reduce over-all trip duration by minimizing out-of-direction travel.

The software shall allow trips to be inserted "on the fly" maintaining efficient scheduling and proper sequencing

pick-ups and drop-offs.

Once a specific rider's trip has been adjusted by the dispatcher for the convenience of the operator (not at the request of the rider), the system shall preclude any other activities that further impact that passenger. This means the system will selectively "freeze" confirmed trips so they are not disrupted by newly requested trips.

The system shall, when a ride is confirmed, estimate the planned ride time and store it for future comparison with actual ride time to ensure that riders are not unduly delayed. The actual ride time will start when the passenger boards and end when the driver indicates the passenger has been dropped off. While en-route if the on-board time exceeds the planned time, the trip shall be flagged for the dispatcher.

The new system shall track no-shows and automatically cancel return rides.

Dispatch software shall be adaptable to set different service quality levels as measured by individual trip duration.

The driver's equipment shall provide an audible alert to signal a change in the manifest as soon as the dispatcher has approved a change resulting from a call coming in to the Paratransit operations center.

The system shall be able to store a pre-selected list of stops and scheduled times for routine use as day-to-day school trippers.

The system shall be able to accept and retain calendar exception data for non-school days to automatically eliminate the "black-out" times when school is not in session, or to operate a modified schedule on short school days.

The system shall be able to receive and store information from the driver indicating multiple riders traveling together under a single reservation, and accept the rider ship count without having passenger names and other identifiers that would normally be obtained when a reservation is made.

The system shall allow the driver to request the dispatcher to make a call to the rider if an emergency situation is suspected and shall send a position report with the request.

The system shall allow the driver to contact the dispatcher with a request emergency assistance for himself or a passenger.

The dispatcher shall be able to distinguish between an emergency request for on-board assistance and an emergency request to check up on a no-show passenger.

The system shall allow the dispatcher to designate a pickup and request an immediate callback indicating the driver is immediately available. This is a pre-operations test of systems at the beginning of each operating day.

Dispatchers shall be able to insert ride requests and bypass computer requests for passenger identifiers when a trip is being inserted due to a field request.

Customers shall have the option to refuse the callback and have that function deleted on a trip-by-trip basis. This also addresses a situation when a request is for a ride right now and no callback is needed. The default shall be set to callback.

If there is more than one regular rider from the same address, the system shall provide a drop-down box and require the operator to identify the rider who is requesting the trip.

The System shall track, store and report on standing order trips in order to monitor the ADA requirement that no more than 50% of one-way trips in any one hour can be standing order trips.

The system shall flag the operator if a ride request is coming from a person who is known to use a wheelchair and need access to a tie-down. When subsequently confirming the trip and assigning it to a vehicle, the system shall not allow the number of wheelchair passengers to exceed the number of tie-downs at any given time.

The system shall flag the ride request if a rider who has a history of no-shows or tardiness is making it. The system shall automatically flag this ride for a callback 30 minutes before the scheduled ride time.

The system shall prompt the operator to confirm the rider's pick-up location. The system shall also save frequent destinations for that rider and enable the operator to pick one from a menu rather than typing in the destination.

For frequently used origin-destination pairs, the system shall retain and maintain data pertaining to travel time between the two points and use average travel times as inputs to scheduling functions.

The rider's requested trip time and return trip information shall be used to determine the availability of resources for the day and time requested. If resources are available, the trip is booked and confirmed with the rider and the trip is scheduled. If resources are not available, an alternate time and/or day are negotiated. The system shall permit the dispatcher to selectively adjust trips times earlier or later in order to insert additional trips.

The software shall provide dispatchers or service managers with estimated productivity of the next day's service (scheduled passengers per scheduled service hour) before the manifests are finalized, so trips can be reassigned to improve productivity before the service day commences.

The System shall enable administrators to analyze passenger trip data by address or location, over time frames that range from weekly, monthly, quarterly and annually. The objective is to identify trip patterns that lead to more productive service operations.

The System shall enable administrators to monitor vehicle productivity by service hour. This shall include the ability to identify inefficient "down time" as defined by gaps in scheduling, overlapping and excessive deadheading, and ratios of in-service to deadheading or driver break time. The objective is to make sure the software is optimizing trip assignments and that dispatchers are not overriding the software parameters and unintentionally reducing service productivity.

The System shall enable administrators to perform service analysis including, but not limited to, options to assign vehicles to service zones based on travel demand patterns.

The System shall enable administrators to identify and analyze patterns of wheelchair use.

Technical support shall be available at all times during the system operation. When system problems arise during operation, it is required that the vendor shall begin to resolve the problem within 30 minutes if reported between 5:00 a.m. and 7:00 p.m. Pacific Standard time (Pacific Daylight time when applicable) on weekdays and within 3 hours of the time when the problem is reported during evenings, weekends and holidays. Support shall be available either by phone, email or in person 24/7.

The following are features required at such a time that the System be configured to work with IVR

- Registered User ID shall be linked to the repeat-rider database containing basic information that is used repeatedly.
- The callback identification shall provide a method to store and select multiple callback numbers that can be assigned to each trip as it is requested and confirmed.
- For all rides for which the dispatcher has selected an automatic callback, the software shall first consult the real-time versus planned schedule to determine if the programmed callback time should be adjusted. (Option for fully automated real-time function).
- When a scheduled pick-up time is delayed by more than a number of minutes TBD by the dispatcher, the rider shall receive an updated callback notice to that effect. The dispatcher shall be able to select the number of minutes that the software shall use for making a decision to "trigger" an advisory callback to riders for whom a callback number is available and who have requested or permitted callbacks. Prior to the IVR system being initiated, ATC staff will perform callbacks manually. After the IVR is initiated the System should interface with the IVR to facilitate automated callbacks.
- The telephone system shall be able to transfer ADA-eligible callers to an ADA call-taker in the event the Paratransit service is fully booked and the requested trip can't be accommodated. Prior to an IVR system being initiated speed dialing can perform this function.

General Requirements

Adequate provision shall be made for spare parts. This is assumed to be 10 percent unless Proposers can indicate that experience with the reliability of particular system elements suggests lower spare levels are reasonable for selected items.

The City of Santa Clarita requires that standard mobile hardware designed for the transit environment shall be used. The equipment to be provided by the Contractor for installation and use on-board City vehicles shall be designed, built, and installed for the harsh operating environment in which this equipment is to operate. All Contractor-provided on-board equipment shall operate properly under the environmental conditions encountered on board the vehicles including conditions pertaining to temperature, humidity, dust/dirt, power variations, shock, vibration, altitude and EMI/RFI interference. All equipment housings shall be waterproof and dust-proof.

Mobile radio and all mobile equipment provided by the Contractor shall meet the following specifications.

Operating Temperature	-20 C to +60C
Thermal Shock	1° per minute drop in temperature over 15°F range between 110° and 60°
Relative Humidity Range	13% to 100% RH including condensation (Equipment need not function when wet, but must function properly under humidity conditions experienced inside Santa Clarita coaches)
Vibration	Operating: 1.5g RMS, 5 to 150 Hz Endurance: 8g RMS, 100 to 1,200 Hz
Shock	30g of 6 milliseconds
Airborne Dust	Up to 180 micrograms per cubic meter, with iron and salt particles
Inclination	0° to 10° off vertical
Water/solvents	Water spray on Equipment from cleaning floors and walls, industrial cleaning solvents, rain, mud, snow and slush will come in contact with Equipment
Primary Voltage	10-18 volts DC nominal; 1018 VDC for short duration up to 1000V spikes of a few milliseconds duration.
Electromagnetic interference	Heater and air conditioning controls high voltage arcs (300V)
Grounding/Lightning	Good ground available/Lightning protection available to protect from high voltage (1000V) spikes from lightning.

Test/Standard	MIL-STD 810E
Low Pressure	500.3/Procedure 1
High Temperature	501.3/Procedure 1
Low Temperature	502.3/Procedure 1
Temperature Shock	503.3/Procedure 1
Solar Radiation	505.3/Procedure 1
Rain	506.3/Procedure 2
Humidity	507.3/Procedure 2
Salt Fog	509.3/Procedure 1
Dust	501.3/Procedure 1
Vibration	510.3/Procedure 1 Category 10
Shock	516.4/Procedure 4

The Proposal shall document the power and environmental specifications of the proposed vehicle equipment and the environmental tests and standards to which the proposed vehicle equipment conforms.

The availability and location of space for equipment installation will differ by the type of vehicle. The contractor shall be responsible for inspecting the vehicles for determining how and where the equipment shall be mounted taking into account the requirements listed below. Equipment should be mounted to the vehicle in such a manner that it will remain in place for the service life of the equipment. The contractor shall be responsible for correcting installations for improperly installed equipment. The installation details and placement of the on-board equipment shall be included in the Contractor Installation Plan.

All equipment shall include voltage polarity reversal protection and over current protection.

On-board electronics installed as a part of this procurement shall not be switched off by the ignition switch. This equipment shall be equipped with a timer that will cause the equipment to be switched off after a pre-determined time of not less than 30 minutes. In any event, the on-board electronics shall be turned off before consuming a total power of 2 ampere hours after ignition "off" but in not event in less than 30 minutes.

Proposers shall state the duration of their timer and the current consumption of the on-board electronics they are adding to the vehicle.

Equipment on the bus exterior shall be made of corrosion resistant materials, or protected by coatings/coverings (providing protection from moisture, dust, and dirt) and that are rated for the service life of the equipment.

Equipment shall not obstruct operator performance, not interfere with operator and/or passenger safety, and shall minimize vehicle modifications.

In-vehicle instrumentation shall be compliant with SAE Specifications J1488/1708/1587 or similar industry standards.

Equipment shall be easy to maintain allowing for reliable operation of mechanical, and electrical components.

Physical accessibility shall be incorporated into the design to allow routine visual inspection of equipment, to allow for timely troubleshooting and diagnostics, to repair inoperable equipment, to adjust equipment that is out of tolerance, and to install and/or remove equipment when required.

Wherever possible, wiring/cabling and connections shall be concealed and or located in appropriate vehicle raceways or storage compartments.

Cabling shall be connected to equipment utilizing securely locking type connectors.

All passenger compartment accessible wiring shall be in metallic conduit and any equipment installed in the passenger compartment shall be suitably protected as approved by the City of Santa Clarita.   The passenger compartment is defined as: anything reachable by a passenger.

The MDT shall include a QWERTY keyboard and or touchpad for operator data entry.

The MDT shall include softkeys to automate manual operator messages.

The MDT shall have an easy to read scrollable display.

The display shall include a dimmable-lighted display for nighttime driving and should be easily readable in bright sunlight.

MDT mounting shall be within easy arm's reach of the seated driver.

MDT buttons and displays shall be easily visible

A swipecard logon feature is desired and shall be included in Proposal costs as a separate option.

The MDT unit shall be capable of accepting a four digit unit ID.   The ID shall be technician selectable and shall be transmitted with every data exchange.

DAR Vehicle to TMF Communications

Communications between the TMF and transit vehicles will occur when the vehicles are in the yard and outside of the yard. Proposers shall supply all necessary equipment (e.g. communications radios, phones, antennas, cabling, modems, repeaters) and performing installations in vehicles, sites, and the TMF to facilitate communications between the TMF and transit vehicles. Equipment quantities shall be consistent with the City's paratransit fleet. The City of Santa Clarita is looking for a best value solution. Proposers are free to consider solutions that include using the existing UHF analog voice radio system and frequency allocations, existing cell phones, enhancing the current configuration, or replacing it.

Voice radio communication shall continue to be maintained as the system backup.

It is expected that real-time data (e.g. location, schedule adherence, passenger counts) data will be provided to central at regular intervals while the vehicle is outside the yard. It is expected that non-real time data (e.g., archived data) will be stored on-board the vehicle and be transferred to the central system while the vehicle is in the yard. In-yard communications will also include uploading required database from central to the vehicle data system.

The city of Santa Clarita requires both voice and data communications across its operational area. The operational area is defined to be those regions where the current DAR vehicles operate as depicted in Appendix F.

The mobile data collected from the vehicle shall be transmitted to the base station/dispatch system for processing. The transmission speed shall be sufficient to collect 1.5 messages per minute from each bus. Advanced error detection techniques shall be used to ensure receipt of reliable code.   Proposers are requested to provide evidence that their proposed solution has sufficient bandwidth to accommodate operations with a 100% margin.

The data system used shall provide 99% reliability of first message being decoded correctly when transmitted over a path exhibiting 18 dB SINAD (ref. 1 KHz, 60% modulation) in a static environment.

The data system utilized shall acknowledge, to the sender, correct receipt of any transmission. Failure to

acknowledge by the receiving end shall result in a re-transmission of the data request. This second data request may be sent up to two times. In the event all attempts fail, the sending Dispatcher/Operator shall be made aware of the failure.

Special high-speed polls may be necessary to meet dispatch information interrogation requirements. These requirements include providing Dispatchers with information that is less than 40 seconds old. To accommodate this may require the implementation of a special poll that is activated once every thirty seconds and interrogates the vehicles that are being viewed by Dispatchers. The data system shall support the transmission of messages from buses that are not solicited by a poll from the base station/dispatch system. These unsolicited messages shall be used for reporting of emergency alarms and other events that shall be reported more quickly than the nominal reporting cycle. The data system shall utilize contention control for the reporting of unsolicited data messages. If a message is not acknowledged, it will be re-sent after a pseudo-random number of available reporting opportunities. The quantity of polled vs. contention data reporting time slots shall be adjustable by the system manager. If contention reporting is used for bus power-up status messages, the data system shall automatically adjust the quantity of polled time slots based on the number of buses that are powered up, i.e. the number that are actively being polled.

Performance Requirements

The paratransit software shall, after a location has been geocoded, within 5 seconds, determine whether a requested origin and destination are within the designated demand response service area in order to properly complete processing the trip request.

The software shall be able to estimate pick-up and drop-off times, accurate to within a TBD number of minutes 95% of the time, as well as travel times, relative to the beginning and ending times of the operating day in order to properly accept and schedule trips according to service day parameters. The TBD will be arrived at following the receipt of proposals. Proposers/Vendors are asked to discuss the expected accuracy of their predictions in their proposals and to make recommendations for reasonable parameters of accuracy.

Interface Requirements

In the future, the City may identify funding to purchase a Trip Planning module for the paratransit and fixed-route service. Proposers should indicate whether they have developed interfaces to such systems and where these applications have been deployed. Contact information should also be included for these deployments. This Project must maintain consistency with the Los Angeles Regional Architecture and the National ITS Architecture. An important element of this is the use of systems engineering for project development and implementation. City consultants have followed the systems engineering steps as follows: User Needs/Concept of Operations, System Requirements, Technology Trade Studies and project specifications to produce an APTS/ITS Technology Plan. To Maintain consistency, documentation of the following steps is required of the successful contractor: system design, implementation and testing phases and verification of systems and sub-systems and a maintenance plan. Contractors for this project are expected to follow a formal project development and implementation methodology that covers at a minimum all of the tasks defined in the content for the technical proposal.

<u>ATTACHMENT B</u>

Labor Compliance Program

CITY OF SANTA CLARITA

LABOR COMPLIANCE PROGRAM
IMPLEMENTATION PLAN & OPERATIONAL MANUAL

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LABOR COMPLIANCE PROGRAM

INTRODUCTION

The City of Santa Clarita (the "City") institutes this Labor Compliance Program for the purpose of implementing its policy relative to the labor compliance provisions of state and federally funded public works contracts.

This program is established for those applicable public works that commence construction after November 1, 2003.

California Labor Code Section 1770, et seq., requires that contractors on public works projects pay their workers based on the prevailing wage rates which are established and issued by the Department of Industrial Relations, Division of Labor Statistics and Research.

California Labor Code Section 1776 requires contractors to keep accurate payroll records of trades workers on all public works projects and to submit copies of certified payroll records upon request.

California Labor Code Section 1777.5 requires contractors to employ registered apprentices on public works projects.

This labor compliance program ("LCP") contains the labor compliance standards required by state and federal laws, regulations, and directives, as well as City policies and contract provisions, which include, but are not limited to, the following:

1. Contractors' payment of applicable general prevailing wage rates.
2. Contractors' employment of properly registered apprentices.
3. Contractors' providing certified payroll records upon request but not less than weekly.
4. Program's monitoring City construction sites for the verification of proper payments of prevailing wage rates and work classification.
5. Program's conducting pre-job conferences with contractors/subcontractors.
6. Program's withholding contract payments and imposing penalties for noncompliance.
7. Program's preparation and submittal of annual reports.

The Labor Compliance Officer ("LCO") is the City's representative for enforcement of the LCP.

Section II

CITY OF SANTA CLARITA

LABOR COMPLIANCE PROGRAM

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CITY OF SANTA CLARITA

LABOR COMPLIANCE PROGRAM

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INTRODUCTION

The City of Santa Clarita institutes this Labor Compliance Program ("LCP") for the purpose of implementing its policy relative to the labor compliance provisions of state and federally-funded public works contracts and specifically to comply with the provisions of Labor Code Section 1771.5. This LCP contains the labor compliance standards required by state and federal laws, regulations, and directives, as well as City policies and contract provisions.

The California Labor Code Section 1770, et seq. requires that contractors on public works projects pay their workers based on the prevailing wage rates which are established and issued by the Department of Industrial Relations, Division of Labor Statistics and Research.

In establishing this LCP, the City adheres to the statutory requirements as enunciated in Section 1771.5(b) of the Labor Code. Further, it is the intent of the City to actively enforce this LCP by monitoring City construction sites for the payment of prevailing wage rates, and by requiring contractors and subcontractors having workers on City sites to submit copies of certified payroll records demonstrating their compliance with the payment of prevailing wage rates.

Should applicable sections of the Labor Code or Title 8 of the California Code of Regulations undergo alteration, amendment, or deletion, the City will modify the affected portions of this program accordingly.

SECTION I
PUBLIC WORKS SUBJECT TO PREVAILING WAGE LAWS

State prevailing wage rates apply to all public works contracts as set forth in Labor Code Sections 1720 *et seq.*, and include, but are not limited to, such types of work as construction, alteration, demolition, repair, or maintenance work. The Division of Labor Statistics and Research (DLSR) predetermines the appropriate prevailing wage rates for particular construction trades and crafts by county.

A. Types of Contracts to Which Prevailing Wage Requirements Apply

Applicable projects under Labor Code Section 1720 *et seq*.

B. Applicable Dates for Enforcement of the LCP

The applicable dates for enforcement of awarding body Labor Compliance Programs is established by Title 8, Section 16425 of the California Code of Regulations. Contracts are not subject to the jurisdiction of the Labor Compliance Program until after the program has received initial or final approval.

SECTION II
COMPETITIVE BIDDING ON CITY PUBLIC
WORKS CONTRACTS

The City publicly advertises upcoming public works projects to be awarded according to a competitive bidding process. All City bid advertisements (or bid invitations) and public works contracts shall contain appropriate language concerning the requirements of the Labor Code.

SECTION III
JOB START MEETING

After the City awards the public works contract, and prior to the commencement of the work, a mandatory Job Start meeting (Pre-Job conference) shall be conducted by the LCO with the contractor and those subcontractors listed in its bid documents.

At that meeting, the LCO will discuss the federal and state labor law requirements applicable to the contract, including prevailing wage requirements, the respective record keeping responsibilities, the requirement for the submittal of certified payroll records to the City, and the prohibition against discrimination in employment.

The LCO will provide the contractor and each subcontractor with a Checklist of Labor Law Requirements (presented as Attachment A to this document) and will discuss in detail the following checklist items:

1. The contractor's duty to pay prevailing wages (Labor Code Section 1770 *et seq*.);

2. The contractor's duty to employ registered apprentices on public works projects (Labor Code Section 1777.5);

3. The penalties for failure to pay prevailing wages and to employ apprentices, including forfeitures and debarment (Labor Code Sections 1775, 1777.7, and 1813);

4. The requirement to maintain and submit copies of certified payroll records to the City, on a weekly basis, as required (Labor Code Section 1776), and penalties for failure to do so (Labor Code Section 1776(g)); The requirement includes and applies to all subcontractors performing work on City projects even if their portion of the work is less than one half of one percent of the total amount of the contract.

5. The prohibition against employment discrimination (Labor Code Sections 1735 and 1777.6; the Government Code; and Title VII of the Civil Rights Act of 1964, as amended);

6. The prohibition against taking or receiving a portion of an employee's wages (Labor Code Section 1778) (kickback);

7. The prohibition against accepting fees for registering any person for public works (Labor Code Section 1779) or for filing work orders on public works (Labor Code Section 1780);

8. The requirement to list all subcontractors that are performing one-half of one percent of the total amount of the contract (Public Contract Code Section 4100 *et seq*.);

9. The requirement to be properly licensed and to require all subcontractors to be properly licensed, and the penalty for employing workers while unlicensed (Labor Code Section 1021 and under California Contractors License Law. Also, see Business and Professions Code Section 7000, et seq.);

10. The prohibition against unfair competition (Business and Professions Code Sections 17200-17208);

11. The requirement that the contractor and subcontractor be properly insured for Workers' Compensation (Labor Code Section 1861);

12. The requirement that the contractor abide by the federal and state Occupational Safety and Health laws and regulations that apply to the particular public works project.

The contractors and subcontractors present at the Job Start meeting will be given the opportunity to ask questions of the LCO relative to the items contained in the Labor Law Requirements Checklist. The checklist will then be signed by the contractor's representative, **a representative of each subcontractor**, and the LCO.

At the Job Start meeting, the LCO will provide the contractor with a copy of the City's LCP package which includes: a copy of the approved LCP, the checklist of Labor Law Requirements, applicable Prevailing Wage Rate Determinations, blank certified payroll record forms, fringe benefit statements, State apprenticeship requirements, and a copy of the Labor Code relating to Public Works and Public Agencies (Part 7, Chapter 1, Sections 1720-1861).

It will be the contractor's responsibility to provide copies of the LCP package to all listed subcontractors and to any substituted subcontractors.

SECTION IV
REVIEW OF CERTIFIED PAYROLL RECORDS

A. Certified Payroll Records Required

The contractor and each subcontractor shall maintain payrolls and basic records (timecards, canceled checks, cash receipts, trust fund forms, accounting ledgers, tax forms, superintendent and foreman daily logs, etc.) during the course of the work and shall preserve them for a period of three (3) years thereafter for all trades workers working on City projects which are subject to the LCP. Such records shall include the name, address, and social security number of each worker, his or her classification, a general description of the work each employee performed each day, the rate of pay (including rates of contributions for, or costs assumed to provide fringe benefits), daily and weekly number of hours worked, and actual wages paid.

1. Submittal of Certified Payroll Records

The contractor and each subcontractor shall maintain weekly certified payroll records for submittal to the City of Santa Clarita LCO as required. The contractor shall be responsible for the submittal of payroll records of all its subcontractors. All certified payroll records shall be accompanied by a statement of compliance signed by the contractor or each subcontractor indicating that the payroll records are correct and complete, that the wage rates contained therein are not less than those determined by the Director of the Department of Industrial Relations, and that the classifications set forth for each employee conform with the work performed.

Time cards, front and back copies of cancelled checks, daily logs, employee sign-in sheets and/or any other records maintained for the purposes of reporting payroll may be requested by the Labor Compliance Officer at any time and shall be provided within 10 days following the receipt of the request.

2. Full Accountability

Each individual, laborer or craftsperson working on a public works contract must appear on the payroll. The basic concept is that the employer who pays the trades worker must report that individual on its payroll. This includes individuals working as apprentices in an apprenticeable trade. Owner-operators are to be reported by the contractor employing them; rental equipment operators are to be reported by the rental company paying the workers' wages.

Sole owners and partners who work on a contract must also submit a certified payroll record listing the days and hours worked, and the trade classification descriptive of the work actually done.

The contractor shall provide the records required under this section to the City within five (5) days of each payday, and shall make generally available for inspection such records by the Department of

Industrial Relations, and shall permit representatives of each to interview tradesworkers during working hours on the project site.

3. Responsibility for Subcontractors

The contractor shall be responsible for ensuring adherence to labor standards provisions by its subcontractors. Moreover, the prime contractor is responsible for Labor Code violations of its subcontractors in accordance with Labor Code Section 1775.

4. Payment to Employees

Employees must be paid unconditionally, and not less often than once each week, the full amounts, that are due and payable for the period covered by the particular payday. Thus, an employer must establish a fixed workweek (Sunday through Saturday, for example) and an established payday (such as every Friday or the preceding day should such payday fall on a holiday). On each and every payday, each worker must be paid all sums due as of the end of the preceding workweek and must be provided with an itemized wage statement.

If an individual is called a subcontractor, whereas, in fact, he/she is merely a journey level mechanic supplying only his/her labor, such an individual would not be deemed a bona fide subcontractor and must be reported on the payroll of the prime contractor as a trades worker. Moreover, any person who does not hold a valid contractor's license cannot be a subcontractor, and anyone hired by that person is the worker or employee of the general contractor for purposes of prevailing wage requirements, certified payroll reporting and workers' compensation laws.

The worker's rate for straight time hours must equal or exceed the rate specified in the contract by reference to the "Prevailing Wage Determinations" for the class of work actually performed. Any work performed on Saturday, Sunday, and/or on a holiday, or portion thereof, must be paid the prevailing rate established for those days regardless of the fixed workweek where required by the Labor Code. The hourly rate for hours worked in excess of 8 hours in a day and 40 hours in a workweek shall be premium pay. All work performed on Saturday, Sunday and holidays shall be paid pursuant to the Prevailing Wage determination where required by the Labor Code.

B. Apprentices

Apprentices shall be permitted to work as such only when they are registered, individually, under a bona fide apprenticeship program registered and approved by the State Division of Apprenticeship Standards. The allowable ratio of apprentices to journeypersons in any craft/classification shall not be greater than the ratio permitted to the contractor as to its entire workforce under the registered program.

Any worker listed on a payroll at an apprentice wage rate who is not registered shall be paid the journey level wage rate determined by the Department of Industrial Relations for the classification of the work he/she actually performed. Pre-apprentice trainees, trainees in non-apprenticeable crafts, and others who are not duly registered will not be permitted on public works projects unless they are paid full prevailing wage rates as journeypersons.

Compliance with California Labor Code Section 1777.5 requires all public works contractors and subcontractors to:

1. Submit contract award information to the apprenticeship committee for each apprenticeable craft or trade in the area of the Project;

2. Request dispatch of apprentices from the applicable Apprenticeship Program(s) and employ apprentices on public works projects in a ratio to journeypersons which in no case shall be less than one (1) hour of apprentice work to each five (5) hours of journeyperson work; and

3. Contribute to the applicable Apprenticeship Program(s) or the California Apprenticeship Council in the amount identified in the prevailing wage rate publication for journeypersons and apprentices. If

payments are not made to an Apprenticeship Program, they shall be made to the California Apprenticeship Council, Post Office Box 420603, San Francisco, CA 94142.

If the contractor is registered to train apprentices, it shall furnish written evidence of the registration (i.e., Apprenticeship Agreement or Statement of Registration) of its training program and apprentices, as well as the ratios allowed and the wage rates required to be paid thereunder for the area of construction, prior to using any apprentices in the contract work. It should be noted that a prior approval for a separate project does not confirm approval to train on any project. The contractor/subcontractor must check with the applicable Joint Apprenticeship Committee to verify status.

C. Audit of Certified Payroll Records

Audits shall be conducted by the LCO, and shall also be conducted at the request of the Labor Commissioner to determine whether all tradesworkers on project sites have been paid according to the prevailing wage rates.

The audit record form (presented as Attachment B) demonstrates the sufficient detail that is necessary to verify compliance with Labor Code requirements.

SECTION V
REPORTING OF WILLFUL VIOLATIONS TO
THE LABOR COMMISSIONER

If an investigation reveals that a willful violation of the Labor Code has occurred, the LCO will make a written report to the Labor Commissioner which shall include: (1) an audit consisting of a comparison of payroll records to the best available information as to the actual hours worked, (2) the classification of workers employed on the public works contract. Six (6) types of willful violations are reported:

A. Failure to Comply with Prevailing Wage Rate Requirements Failure to comply with prevailing wage rate requirements (as set forth in the Labor Code and City contracts) is determined a willful violation whenever less than the stipulated basic hourly rate is paid to tradesworkers, or if overtime, holiday rates, fringe benefits, and/or employer payments are paid at a rate less than stipulated.

B. Falsification of Payroll Records, Misclassification of Work, and/or Failure to Accurately Report Hours of Work Falsification of payroll records and failure to accurately report hours of work is characterized by deliberate underreporting of hours of work; underreporting the headcount; stating that the proper prevailing wage rate was paid when, in fact, it was not; clearly misclassifying the work performed by the worker; and any other deliberate and/or willful act which results in the falsification or inaccurate reporting of payroll records.

C. Failure to Submit Certified Payroll Records The contractors and subcontractors shall have ten (10) days upon notification by the LCO in which to comply with the requirement of submittal of weekly and/or to correct inaccuracies or omissions that have been detected.

D. For Failure to Pay Fringe Benefits Fringe benefits are defined as the amounts stipulated for employer payments or trust fund contributions and are determined to be part of the required prevailing wage rate. Failure to pay or provide fringe benefits and/or make trust fund contributions on a timely basis is equivalent to payment of less than the stipulated wage rate and shall be reported to the Labor Commissioner as a willful violation, upon completion of an investigation and audit.

E. Failure to Pay the Correct Apprentice Rates and/or Misclassification of Workers as Apprentices Failure to pay the correct apprentice rate or classifying a worker as an apprentice when not properly registered is equivalent to payment of less than the stipulated wage rate and shall be reported to the Labor Commissioner, as a willful violation, upon completion of an investigation and audit.

F. For the taking of Kickbacks Accepting or extracting kickbacks from employee wages under Labor Code Section 1778 constitutes a felony and may be prosecuted by the appropriate enforcement agency.

SECTION VI
ENFORCEMENT ACTION

A. Duty of the Awarding Body

The City of Santa Clarita, as the awarding body having an approved LCP, has a duty to the Director of the Department of Industrial Relations to enforce Labor Code Section 1720 *et seq.* and the procedural regulations of the Department of Industrial Relations in a manner consistent with the practice of DLSE and regulations found at Title 8, California Code Regulations, Section 16000 *et seq.*

B. Withholding Contract Payments When Payroll Records are   Delinquent or Inadequate

1. "Withhold" means to cease payments by the awarding body, its agents or others who pay on its behalf to the contractor. Where the violation is by a subcontractor, the contractor shall be notified of the nature of the violation and reference made to its rights under Labor Code Section 1729.

   A release bond under Civil Code Section 3196 may not be posted for the release of the funds being withheld for the violation of the prevailing wage law.

2. "Contracts" except as otherwise provided by agreement, means only contracts under a single master contract, or contracts entered into as stages of a single project which may be the subject of withholding, pursuant to the Labor Code, Sections 1720, 1720.2, 1720.3, 1720.4, 1771, and 1771.5;

3. "Delinquent payroll records" means those not submitted on the basis set forth in the City Contract and the LCP;

4. "Inadequate payroll records" are any one of the following:

   a. A record lacking the information required by Labor   Code Section 1776;

   b. A record which contains the required information but which is not certified, or certified by someone not an agent of the contractor or subcontractor;

   c. A record remaining uncorrected for one payroll period, after the awarding body has given the contractor notice of inaccuracies detected by audit or record review; provided, however, that prompt correction will stop any duty to withhold if such inaccuracies do not amount to 1 percent of the entire certified weekly payroll in dollar value and do not affect more than half the persons listed as workers employed on that certified weekly payroll, as defined in Labor Code Section 1776 and Title 8 CCR Section 16401. Prompt correction will stop any duty to withhold if such inaccuracies are *de minimus*.

   Pursuant to Labor Code Section 1776, the contractor shall, as a penalty to the City, forfeit twenty-five dollars ($25) for each calendar day, or portion there of, for each worker, until strict compliance is effectuated.

C. Withholding for Violation for Not Paying the Per Diem Prevailing Wages

1. "Amount equal to the underpayment" is the total of the following determined by payroll review, audit, or admission of the contractor or subcontractor:

   a. The difference between the amounts paid to workers and the correct General Prevailing Wage Rate of Per Diem Wages as defined in Title 8, CCR Section 16000, et seq.;

   b. The difference between the amounts paid to workers and the correct amounts of employer payments, as defined in Title 8 CCR Section 16000 *et seq.* and determined to be part of the prevailing rate costs of contractors due for employment of workers in such craft, classification, or trade in which they were employed and the amounts paid;

c. Estimated amounts of "illegal taking of wages"; and

d. Amounts of apprenticeship training contributions paid to neither the program sponsor's training trust nor the California Apprenticeship Council.

2. Provisions relating to the penalties under Labor Code   Sections 1775, and 1813:

a. Pursuant to Labor Code Section 1775, the contractor shall, as a penalty to the City, forfeit up to fifty dollars ($50) for each calendar day, or portion thereof, for each worker paid less than the prevailing wages.

b.   Pursuant to Labor Code Section 1813, the contractor shall, as a penalty to the City on whose behalf the contract is awarded, forfeit twenty-five dollars ($25) for each worker employed in the execution of the contract by the contractor or by any subcontractor for each calendar day during which such worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week.

D. Forfeitures Requiring Approval by the Labor Commissioner

1.   "Forfeitures" are the amounts of unpaid penalties and wages assessed by the City for violations of the prevailing wage laws, whether collected by withholding from the contract amount, by suit under the contract, or both.

2. "Failing to pay the correct rate of prevailing wages" means those public works violations which the Labor Commissioner has exclusive authority to approve before they are recoverable by the Labor Compliance Program, and which are appealable by the contractor before the Director of the Department of Industrial Relations under Labor Code Sections 1742 and 1742.1 pursuant to the California Code of Regulations Title 8, Chapter 8, Subchapter 8 (§§ 17201 through 17270).
Regardless of what is defined as prevailing "wages in contract terms, noncompliance with the following are considered failures to pay prevailing wages:

a. Nonpayment of items defined as "Employer Payments" and "General Prevailing Rate of Per Diem Wages" in Title 8 CCR Section 16000 and Labor Code Section 1771.

b. Failure to provide complete and accurate payroll records, as required by Labor Code Section 1776;

c. Paying apprentice wages lower than the journey level rate to a worker who is not an apprentice as defined in Labor Code Section 3077, working under an apprentice agreement in a recognized program;

d. Accepting or extracting kickbacks, in violation of Labor Code Section 1778;

e. Engaging in prohibited actions related to fees for registration as a public works employee, in violation of Labor Code Section 1779;

f. Failure to pay overtime for work over 8 hours in any one day or 40 hours in any one week, in violation of Labor Code Sections 1813, 1815, or Title 8 CCR Section 16200(a)(3)(F).

E. Determination of Amount of Forfeiture by the Labor Commissioner

1. Where the LCO requests a determination of the amount of forfeiture, the request shall include a file or report to the Labor Commissioner which contains at least the following information:

a. The date that the public work was accepted, and the date that a notice of completion was filed;

b. Any other deadline which, if missed, would impede collection;

c. Evidence of violation in narrative form;

d. Evidence that an "audit" or "investigation" occurred in compliance with Title 8 CCR Section 16432;

e. Evidence that the contractor was given the opportunity to explain why it believes there was no violation; or that any violation was caused by mistake, inadvertence, or neglect before the forfeiture was sent to the Labor Commissioner, and the contractor either did not do so or failed to convince the awarding body of its position;

f. Where the City seeks not only amounts of wages but also a penalty as part of the forfeiture, and the contractor has unsuccessfully contended that the cause of violation was a mistake, inadvertence, or neglect, a statement should accompany the proposal for a forfeiture with a recommended penalty amount, pursuant to Labor Code Section 1775;

g. Where the City seeks only wages or a penalty less than $50 per day as part of the forfeiture, and the contractor has successfully contended that the cause of violation was a mistake, inadvertence, or neglect, then the file should include the evidence as to the contractor's knowledge of its obligation, including the Program's communication to the contractor of the obligation in the bid invitations, at the pre-job conference agenda and records, and any other notice given as part of the contracting process. Included with the file should be a statement similar to that described in subsection (f) above and recommended penalty amounts, pursuant to Labor Code Section 1775;

h. The previous record of the contractor in meeting prevailing wage obligations.

2. The file or report shall be served on the Labor Commissioner not less than 30 days before the final payment or, if that deadline has passed, not less than 180 days following the filing of the notice of completion as long as funds remain in the contract.

3. A copy of the file or report shall be served on the contractor at the same time as it is sent to the Labor Commissioner.

    The City may exclude from the documents served on the contractor/subcontractor or surety copies of documents secured from these parties during an audit, investigation, or meeting if those documents are clearly referenced in the file or report.

4. The Labor Commissioner shall affirm, reject, or modify the forfeiture in whole or in part as to penalty and/or wages due.

5. The determination of the forfeiture by the Labor Commissioner is effective on the following date for Labor Compliance Programs having **initial approval** pursuant to Section 16426 of the California Code of Regulations: on the date the Labor Commissioner serves by first class mail on the City of Santa Clarita and on the contractor, an endorsed copy of the proposed forfeiture, or a drafted forfeiture statement which sets out the amount of forfeiture approved. Service on the contractor is effective if made on the last address supplied by the contractor in the record.

    The Labor Commissioner's approval, modification, or disapproval of the proposed forfeiture shall be served within 30 days of receipt of the proposed forfeiture.

F. Deposits of Penalties and Forfeitures Withheld

1. Where the involvement of the Labor Commissioner has been limited to a determination of the actual amount of penalty, forfeiture, or underpayment of wages, and the matter has been resolved without litigation by or against the Labor Commissioner, the City shall deposit penalties and forfeitures into its General Fund.

2. Where collection of fines, penalties, or forfeitures results from court action to which the Labor Commissioner and the City of Santa Clarita are both parties, the fines, penalties, or forfeitures shall be divided between the General Funds of the State and the City of Santa Clarita, as the court may decide.

3. All amounts recovered by suit brought by the Labor Commissioner, and to which the City of Santa Clarita is not a party, shall be deposited in the General Fund of the State of California.

4. All wages and benefits which belong to a worker and are withheld or collected from a contractor or subcontractor, either by withholding or as a result of court action pursuant to Labor Code Section 1775, and which have not been paid to the worker or irrevocably committed on the worker's behalf to a benefits fund, shall be deposited with the Labor Commissioner, who will deal with such wages and benefits in accordance with Labor Code Section 96.7.

G. Debarment Policy

1. It is the policy of the City that the public works prevailing wage requirements set forth in the California Labor Code, Section 1720-1861, be strictly enforced. In furtherance thereof, construction contractors and subcontractors found to be repeat violators of the California Labor Code shall be referred to the Labor Commissioner for debarment from bidding on or otherwise being awarded any public work contract, within the state of California, for the performance of construction and/or maintenance services for the period not to exceed three (3) years in duration. The duration of the debarment period shall depend upon the nature and severity of the labor code violations and any mitigating and/or aggravating factors, which may be presented at the hearing conducted by the Labor Commissioner for such purpose.

SECTION VII
NOTICE OF WITHHOLDING AND REVIEW THEREOF

A. Notice of Withholding of Contract Payments

After determination of the amount of forfeiture by the Labor Commissioner, the City shall provide notice of withholding of contract payments to the contractor and subcontractor, if applicable. The notice shall be in writing and shall describe the nature of the violation and the amount of wages, penalties, and forfeitures withheld. Service of the notice shall be completed pursuant to Section 1013 of the Code of Civil Procedure by first-class and certified mail to the contractor and subcontractor, if applicable. The notice shall advise the contractor and subcontractor, if applicable, of the procedure for obtaining review of the withholding of contract payments. The awarding body shall also serve a copy of the notice by certified mail to any bonding company issuing a bond that secures the payment of wages covered by the notice and to any surety on a bond, if their identities are known to the awarding body. **A copy of the Notice of Withholding of Contract Payments (NWCP) to be utilized by the City is found as Attachment D to this document.**

B. Review of NWCP

1. An affected contractor or subcontractor may obtain review of a NWCP under this chapter by transmitting a written request to the office of the Labor Compliance Officer ("LCO") that appears on the NCWP within 60 days after service of the NWCP. If no hearing is requested within 60 days after service of the NWCP, the NWCP shall become final.

2. Within ten days following the receipt of the request for review, the LCO shall transmit to the Office of the Director-Legal Unit the request for review and copies of the Notice of Withholding of Contract Payments, any audit summary that accompanied the notice, and a proof of service or other documents showing the name and address of any bonding company or surety that secures the payment of the wages covered by the notice. **A copy of the required Notice of Transmittal to be utilized by the City is found as Attachment E to this document.**

3. Upon receipt of a timely request, a hearing shall be commenced within 90 days before the director, who shall appoint an impartial hearing officer possessing the qualifications of an administrative law judge pursuant to subdivision (b) of Section 11502 of the Government Code. The appointed hearing officer shall be an employee of the department, but shall not be an employee of the Division of Labor Standards

Enforcement. The contractor or subcontractor shall be provided an opportunity to review evidence to be utilized by the LCO at the hearing within 20 days of the receipt of the written request for a hearing. Any evidence obtained by the LCO subsequent to the 20-day cutoff shall be promptly disclosed to the contractor or subcontractor. **A copy of a Notice of Opportunity to Review Evidence Pursuant to Labor Code Section 1742(b) form is found as Attachment F to this document.**

The contractor or subcontractor shall have the burden of proving that the basis for the NWCP is incorrect. The NWCP shall be sufficiently detailed to provide fair notice to the contractor or subcontractor of the issues at the hearing.

Within 45 days of the conclusion of the hearing, the director shall issue a written decision affirming, modifying, or dismissing the assessment. The decision of the director shall consist of a notice of findings, findings, and an order. This decision shall be served on all parties pursuant to Section 1013 of the Code of Civil Procedure by first-class mail at the last known address of the party on file with the LCO. Within 15 days of the issuance of the decision, the director may reconsider or modify the decision to correct an error, except that a clerical error may be corrected at any time.

The director has adopted regulations setting forth procedures for hearings under this subdivision. **The regulations are found as Attachment G to this document.**

4. An affected contractor or subcontractor may obtain review of the decision of the director by filing a petition for a writ of mandate to the appropriate superior court pursuant to Section 1094.5 of the Code of Civil Procedure within 45 days after service of the decision. If no petition for writ of mandate is filed within 45 days after service of the decision, the order shall become final. If it is claimed in a petition for writ of mandate that the findings are not supported by the evidence, abuse of discretion is established if the court determines that the findings are not supported by substantial evidence in the light of the whole record.

5. A certified copy of a final order may be filed by the Labor Commissioner in the office of the clerk of the superior court in any county in which the affected contractor or subcontractor has property or has or had a place of business. The clerk, immediately upon the filing, shall enter judgment for the state against the person assessed in the amount shown on the certified order.

6. A judgment entered pursuant to this procedure shall bear the same rate of interest and shall have the same effect as other judgments and shall be given the same preference allowed by law on other judgments rendered for claims for taxes. The clerk shall not charge for the service performed by him or her pursuant to this section.

7. This procedure shall provide the exclusive method for review of a NWCP by the City to withhold contract payments pursuant to Labor Code Section 1771.7.

SECTION VIII
DISTRIBUTION OF FORFEITED SUMS

1. Before making payments to the contractor of money due under a contract for public work, the City shall withhold and retain therefrom all amounts required to satisfy the NWCP. The amounts required to satisfy the NWCP shall not be disbursed by the City until receipt of a final order that is no longer subject to judicial review.

2. Pending a final order, or the expiration of the time period for seeking review of the notice of the withholding, the City shall not disburse any contract payments withheld.

3. From the amount recovered, the wage claim shall be satisfied prior to the amount being applied to penalties. If insufficient money is recovered to pay each worker in full, the money shall be prorated among all workers employed on the public works project who are paid less than the prevailing wage rate shall have **PRIORITY** over all Stop Notices filed against the prime contractor.

4. Wages for workers who cannot be located shall be placed in the Industrial Relations Unpaid Fund and held in trust for the workers pursuant to Labor Code Section 96.7. Penalties shall be paid into the General Fund of the City that has enforced this chapter pursuant to Labor Code Section 1771.7.

SECTION IX
OUTREACH ACTIVITIES

To ensure the successful implementation of the City's Labor Compliance Program, there shall be several outreach activities initiated and maintained.

A. Providing Information to the Public

The Labor Compliance Officer shall be responsible for communication and outreach activities relative to public information on the City's Labor Compliance Program:

1. Regular presentations to contractors at all City Job Walk Meetings (Pre-Bid conferences) and Job Start Meetings (Pre-Job conferences);

2. Ongoing communication via correspondence and with workers at the City's job sites when review of the certified payroll records reveals the possibility of prevailing wage violations.

3. Periodic meetings with contractor organizations, prime contractors and subcontractors interested in public works contracting with the City.

B. In-service Management training on the Labor Compliance Program

The Labor Compliance Program shall provide ongoing management in-servicing and workshops for Facilities, Business, Accounting and legal staff relative to the terms, requirements and administration of the Labor Compliance Program.

SECTION X
ANNUAL REPORTS

A. Annual Report on Prevailing Wage Monitoring to the City Council

The LCO will submit to the City Council an annual report on prevailing wage monitoring which will include the following information:

1. Progress report on the LCP.

2. Fiscal year-end summary of:

    a. Monitoring activities
    b. Record keeping activities
    c. Labor Code violations identified and reported to DLSE
    d. Statistical analysis of the prevailing wage violations on City public works projects
    e. Summary of outreach activities

B. Annual Report on the LCP to the Director of the Department of Industrial Relations

The LCO will submit to the Director of the Department of Industrial Relations an annual report on the operation of its LCP within 60 days after the end of its fiscal year, or accompany its request for an extension of initial approval, whichever comes first. The annual report will contain, as a minimum, the following information:

1. Number of public works contracts awarded using Bond Act funds, and their total value;

2. A summary of wages due to workers resulting from failure by contractors to pay prevailing wage rates; the total amount withheld from money due the contractors; and the total amount recovered by action in any court of competent jurisdiction;

3. A summary of penalties and forfeitures imposed and withheld, or recovered in a court of competent jurisdiction; and

4. A special summary of all audits that were conducted upon the request of the Labor Commissioner.

Copies of this report will be distributed to the Director of the Department of Industrial Relations, and the City Council.

ATTACHMENT A

CITY OF SANTA CLARITA
LABOR COMPLIANCE PROGRAM

CHECKLIST OF LABOR LAW REQUIREMENTS
FOR REVIEW AT JOB START MEETINGS
(In accordance with Title 8 CCR Section 16430)

The federal and state labor law requirements applicable to the contract are composed of, but not limited to, the following:

1. Payment of Prevailing Wage Rates

   The award of a public works contract requires that all workers employed on the project be paid not less than the specified general prevailing wage rates by the contractor and its subcontractors as where required by the Labor Code.

   The contractor is responsible for obtaining and complying with all applicable general prevailing wage rates for tradesworkers and any rate changes, which may occur during the term of the contract. Prevailing wage rates and rate changes are to be posted at the job site for workers to view.

2. Apprentices

   It is the duty of the contractor and subcontractors to employ registered apprentices on public works projects per Labor Code Section 1777.5;

3. Penalties
   Penalties, including forfeitures and debarment, shall be imposed for contractor/subcontractor failure to pay prevailing wages, failure to maintain and submit accurate certified payroll records upon request, failure to employ apprentices, and for failure to pay employees for all hours worked at the correct prevailing wage rate, in accordance with Labor Code Sections 1775, 1776, 1777.7, and 1813.

4. Certified Payroll Records

   Per Labor Code Section 1776, contractors and subcontractors are required to keep accurate payroll records which reflect the name, address, social security number, and work classification of each employee; the straight time and overtime hours worked each day and each week; the fringe benefits; and the actual per diem wages paid to each journeyperson, apprentice, worker, or other employee hired in connection with a public works project.

   Employee payroll records shall be certified and shall be made available for inspection at all reasonable hours at the principal office of the contractor/subcontractor, or shall be furnished to any employee, or to his or her authorized representative on request.

   Contractors and subcontractors shall maintain their certified payrolls on a weekly basis and shall submit said payrolls weekly to the LCO. In the event that there has been no work performed during a given week, the Certified Payroll Record shall be annotated "No Work" for that week.

5. Nondiscrimination in Employment

   Prohibitions against employment discrimination are contained in Labor Code Sections 1735 and 1777.6; the Government Code; the Public Contracts Code; and Title VII of the Civil Rights Act of 1964, as amended. All contractors and subcontractors are required to implement equal employment opportunities as delineated below:

a. Equal Employment Poster

The equal employment poster shall be posted at the job site in a conspicuous place visible to employees and employment applicants for the duration of the project.

b. Records

The contractor and each subcontractor shall maintain accurate records of employment information as required by the Monthly Employment Utilization Report. This report shall specify the ethnicity and gender for each employee in a craft, trade, or classification.

c. Reports

A Monthly Employment Utilization Report for the contractor **and** for each of its subcontractors is required to be completed and submitted via fax to the City Labor Compliance Program Office each month by no later than the fifth day of that month. Reports are to be for the previous month's work and are to be project specific. If no work was performed during that month, the form shall clearly state "No Work."

6. Kickback Prohibited

Per Labor Code Section 1778, contractors and subcontractors are prohibited from accepting, taking wages illegally, or extracting "kickback" from employee wages;

7. Acceptance of Fees Prohibited

Contractors and subcontractors are prohibited from exacting any type of fee for registering individuals for public work (Labor Code Section 1779); or for filling work orders on public works contracts (Labor Code Section 1780);

8. Listing of Subcontractors
Contractors are required to list all subcontractors hired to perform work on a public works project when that work is equivalent to more than one-half of one percent of the total effort (Government Code Section 4100, et seq.);

9. Proper Licensing

Contractors and subcontractors are required to be properly licensed. Penalties will be imposed for employing workers while unlicensed (Labor Code Section 1021 and Business and Professions Code Section 7000, et seq. under California Contractors License Law);

10. Unfair Competition Prohibited

Contractors and subcontractors are prohibited from engaging in unfair competition (Business and Professions Code Sections 17200-17208);

11. Workers' Compensation Insurance

All contractors and subcontractors are required to be insured against liability for workers' compensation, or to undertake self-insurance in accordance with the provisions of Labor Code Section 3700 (Labor Code Section 1861);

12. OSHA

Contractors and subcontractors are required to comply with the Occupational, Safety and Health laws and regulations applicable to the particular public works project.

In accordance with federal and state laws, and with City policy and contract documents, the undersigned contractor herein certifies that it will comply with the foregoing labor law requirements; and fully understands that failure to comply with these requirements will subject it to the penalties cited herein.

For the Contractor: **For the City of Santa Clarita :**

_____   _____
  Signature   Date   Signature   Date

ATTACHMENT B

CITY OF SANTA CLARITA
LABOR COMPLIANCE PROGRAM OFFICE

LABOR COMPLIANCE PROGRAM
<u>**AUDIT RECORD FORM**</u>
(For Use with Title 8 CCR Section 16432 Audits)

An audit record is sufficiently detailed to "verify compliance with the requirements of Chapter 1, Public Works, Part 7 of Division 2," when the audit record displays that the following procedures have been followed:

1. Audit of the obligation to carry workers' compensation insurance means producing written evidence of a binder issued by the carrier, or telephone or written inquiry to the Workers' Compensation Insurance Rating Bureau;

2. Audit of the obligation to employ and train apprentices means inquiry to the program sponsor for the apprenticeable craft or trade in the area of the public work as to: whether contract award information was received, including an estimate of journeyperson hours to be performed and the number of apprentices to be employed; whether apprentices have been requested, and whether the request has been met; whether the program sponsor knows of any amounts received from the contractor or subcontractor for the training fund or the California Apprenticeship Council; and whether persons listed on the certified payroll in that craft or trade being paid less than the journeyperson rate are apprentices registered with that program and working under apprentice agreements approved by the Division of Apprenticeship Standards;

3. Audit of the obligation to pass through amounts, made part of the bid, for apprenticeship training contributions to either the training trust or the California Apprenticeship Council, means asking for copies of checks remitted, or when the audit occurs more than 30 days after the month in which payroll has been paid, copies of canceled checks remitted;

4. Audit of "illegal taking of wages" means inspection of written authorizations for deductions (as listed in Labor Code Section 224) in the contractor's files and comparison to wage deduction statements furnished to employees (Labor Code Section 226), together with an interview of several employees as to any payments made which are not reflected on the wage deduction statements;

5. Audit of the obligation to keep records of working hours (Title 8 CCR Section 16432), and pay not less than required for hours worked in excess of 8 hours/day and 40 hours/week (Title 8 CCR Section 16200(a)(3)(F), means review and audit of weekly certified payroll records;

6. Audit of the obligation to pay the prevailing per diem wage means review and audit of weekly-certified payroll records for compliance with:

    a. All elements defined as the General Prevailing Rate of Per Diem Wages in Title 8 CCR Section 16000, which were determined to be prevailing in the Director's determination in effect on the date of the call for bids, or as reflected in any subsequent revised determination issued by the Director's office, copies of which are available at the LCO's Office and posted at the public works job site;

    b. All elements defined as Employer Payments to Workers set forth in Title 8 CCR Section 16000, which were determined to be prevailing in the Director's determination in effect on the date of the call for bids, or as reflected in any subsequent revised determination issued by the Director's office, copies of which are available at the LCO's Office and posted at the public works job site.

ATTACHMENT C

CITY OF SANTA CLARITA
LABOR COMPLIANCE PROGRAM OFFICE

LABOR COMPLIANCE PROGRAM

NOTICE OF DEADLINES FOR FORFEITURES
(Under Section 8 CCR Section 16437)

TO: **(NAME OF CONTRACTOR)**

This document requests the Labor Commissioner of California to approve a forfeiture of money you would otherwise be paid. The City of Santa Clarita Labor Compliance Program Officer is asking the Labor Commissioner of California to agree, in 20 days, that the enclosed Evidence Report and package of materials indicates that you have violated the law.

Your failure to respond to the City of Santa Clarita's request that the Labor Commissioner approve a forfeiture, by writing to the Labor Commissioner within 20 days of the date of service (the date of postmark) of this document on you, may lead the Labor Commissioner to affirm the proposed forfeiture and may also end your right to contest those amounts further.

You must serve any written response on the Labor Commissioner and the City of Santa Clarita Labor Compliance Program Officer by return receipt requested/certified mail. If you serve a written explanation, with evidence, as to why the violation did not occur or why the penalties should not be assessed, within the 20-day period, it will be considered.

And

If you change your address, or decide to hire an attorney, it is your responsibility to advise the City of Santa Clarita Labor Compliance Program Officer by certified mail. Otherwise, notices will be served at your last address on file, and deadlines may pass before you receive such notice.

ATTACHMENT D

Labor Compliance Program _____ _____ _____ _____ Phone: Fax:	(SEAL)
Date:	In Reply Refer to Case No.:

Notice of Withholding of Contract Payments

Awarding Body	a Work Performed in County of
Project Name	a Project No.
Prime Contractor	
Subcontractor	

After an investigation concerning the payment of wages to workers employed in the execution of the contract for the above-named public works project, the Labor Compliance Program for _____ _____ (A Labor Compliance Program) has determined that violations of the California Labor Code have been committed by the contractor and/or subcontractor identified above. In accordance with Labor Code Sections 1771.5 and 1771.6, the Labor Compliance Program hereby issues this Notice of Withholding of Contract Payments.

The nature of the violations of the Labor Code and the basis for the assessment are as follows:
_____
_____
_____
_____

The Labor Compliance Program has determined that the total amount of wages due is: $_____

The Labor Compliance Program has determined that the total amount of penalties assessed under Labor Code Sections 1775 and 1813 is: $_____

The Labor Compliance Program has determined that the amount of penalties assessed under Labor Code Section 1776 is: $_____

LABOR COMPLIANCE PROGRAM

_____

By:_____

Notice of Right to Obtain Review - Formal Hearing

In accordance with Labor Code Sections 1742 and 1771.6, an affected contractor or subcontractor may obtain review of this Notice of Withholding of Contract Payments by transmitting a written request to the office of the Labor Compliance Program that appears below within 60 days after service of the notice. **To obtain a hearing, a written Request for Review must be transmitted to the following address:**

Labor Compliance Program

_____
Review Office-Notice of Withholding of Contract Payments

_____
_____

A **Request for Review** either shall clearly identify the Notice of Withholding of Contract Payments from which review is sought, including the date of the notice, or it shall include a copy of the notice as an attachment, and shall also set forth the basis upon which the notice is being contested. In accordance with Labor Code Section 1742, the contractor or subcontractor shall be provided an opportunity to review evidence to be utilized by the Labor Compliance Program at the hearing within 20 days of the Labor Compliance Program's receipt of the written **Request for Review**.

> **Failure by a contractor or subcontractor to submit a timely Request for Review will result in a final order which shall be binding on the contractor and subcontractor, and which shall also be binding, with respect to the amount due, on a bonding company issuing a bond that secures the payment of wages and a surety on a bond. Labor Code Section 1743.**

In accordance with Labor Code Section 1742(d), a certified copy of a final order may be filed by the Labor Commissioner in the office of the clerk of the superior court in any county in which the affected contractor or subcontractor has property or has or had a place of business. The clerk, immediately upon the filing, shall enter judgment for the State against the person assessed in the amount shown on the certified order.

Opportunity for Settlement Meeting

In accordance with Labor Code Section 1742.1 (b), the Labor Compliance Program shall, upon receipt of a request from the affected contractor or subcontractor within 30 days following the service of this Notice of Withholding of Contract Payments, afford the contractor or subcontractor the opportunity to meet with the Labor Compliance Program's designee **to attempt to settle a dispute regarding the notice**. The settlement meeting may be held in person or by telephone and shall take place before the expiration of the 60-day period for seeking a hearing as set forth above under the heading Notice of Right to Obtain Review. No evidence of anything said or any admission made for the purpose of, in the course of, or pursuant to, the settlement meeting is admissible or subject to discovery in any administrative or civil proceeding. No writing prepared for the purpose of, in the course of, or pursuant to, the settlement meeting, other than a final settlement agreement, is admissible or subject to discovery in any administrative or civil proceeding. This opportunity to timely request an informal settlement meeting is **in addition** to the right to obtain a formal hearing, and a settlement meeting may be requested even if a written **Request for Review** has already been made. Requesting a settlement meeting, however, does not extend the 60-day period during which a formal hearing may be requested.

A written request to meet with the Labor Compliance Program's designee to attempt to settle a dispute regarding this notice must be transmitted to _____ at the following address:

_____
_____
_____

Liquidated Damages

In accordance with Labor Code Section 1742.1, after 60 days following the service of this Notice of Withholding of Contract Payments, the affected contractor, subcontractor, and surety on a bond or bonds issued to secure the payment of wages covered by the notice shall be liable for liquidated damages in an amount equal to the wages, or portion thereof that still remain unpaid. If the notice subsequently is overturned or modified after administrative or judicial review, liquidated damages shall be payable only on the wages found to be due and unpaid. If the contractor or subcontractor demonstrates to the satisfaction of the Director of the Department of Industrial Relations that he or she had substantial grounds for believing the assessment or notice to be an error, the Director shall waive payment of the liquidated damages.

The Amount of Liquidated Damages Available Under this Notice is $_____.

Distribution:

Prime Contractor
Subcontractor
Surety(s) on Bond

ATTACHMENT E

LABOR COMPLIANCE PROGRAM _____ Review Office - Notice of Withholding of Contract Payments _____ _____ _____ Phone: Fax:	(SEAL)
Date:	In Reply Refer to Case No.:

Notice of Transmittal

To: Department of Industrial Relations
         Office of the Director-Legal Unit
         Attention: Lead Hearing Officer
         P. O. Box 420603
         San Francisco, CA 94142-0603

Enclosed herewith please find a Request for Review, dated _____, postmarked _____, and received by this office on _____.

Also enclosed please find the following:

      _____   Copy of Notice of Withholding of Contract Payments
      _____   Copy of Audit Summary

LABOR COMPLIANCE PROGRAM
_____

By:_____

cc: Prime Contractor
        Subcontractor
        Bonding Company

        Please be advised that the Request for Review identified above has been received and transmitted to the address indicated. Please be further advised that the governing procedures applicable to these hearings are set forth at Title 8, California Code of Regulations Sections 17201-17270. These hearings are **not** governed by Chapter 5 of the Government Code, commencing with Section 11500.

ATTACHMENT F

LABOR COMPLIANCE PROGRAM _____ Review Office - Notice of Withholding of Contract Payments _____ _____ _____ Phone: Fax:	(SEAL)
Date:	In Reply Refer to Case No.:

Notice of Opportunity to Review Evidence Pursuant to Labor Code Section 1742(b)

To: Prime Contractor

         _____

         _____

         _____

         Subcontractor

         _____

         _____

         _____

Please be advised that this office has received your **Request for Review**, dated _____, and pertaining to the Notice of Withholding of Contract Payments issued by the Labor Compliance Program in Case No. _____.

In accordance with Labor Code Section 1742(b), this notice provides you with an opportunity to review evidence to be utilized by the Labor Compliance Program at the hearing on the Request for Review, and the procedures for reviewing such evidence.

Rule 17224 of the Prevailing Wage Hearing Regulations provides as follows:

A(a) Within ten (10) days following its receipt of a Request for Review, the Enforcing Agency shall also notify the affected contractor or subcontractor of its opportunity and the procedures for reviewing evidence to be utilized by the Enforcing Agency at the hearing of the Request for Review.

(b) An Enforcing Agency shall be deemed to have provided the opportunity to review evidence required by this Rule if it (1) gives the affected contractor or subcontractor the option at said party's own expense to either (i) obtain copies of all such evidence through a commercial copying service or (ii) inspect and copy such evidence at the office of the Enforcing Agency during normal business hours; or if (2) the Enforcing Agency at its own expense forwards copies of all such evidence to the affected contractor or subcontractor.

(c) The evidence required to be provided under this Rule shall include the identity of witnesses whose testimony the Enforcing Agency intends to present, either in person at the hearing or by declaration or affidavit. This provision shall not be construed as requiring the Enforcing Agency to prepare or provide any separate listing of witnesses whose identities are disclosed within the written materials made available under subpart (a).

(d) The Enforcing Agency shall make evidence available for review as specified in subparts (a) through (c) within 20 days of its receipt of the Request for Review; *provided that*, this deadline may be extended by written request or agreement of the affected contractor or subcontractor. The Enforcing Agency's failure to make evidence available for review as required by Labor Code Section 1742(b) and this Rule, shall preclude the enforcing agency from introducing such evidence in proceedings before the Hearing officer or the Director.

(e) This Rule shall not preclude the Enforcing Agency from relying upon or presenting any evidence first obtained after the initial disclosure of evidence under subparts (a) through (d), *provided that*, such evidence is promptly disclosed to the affected contractor or subcontractor. This Rule also shall not preclude the Enforcing Agency from presenting previously undisclosed evidence to rebut new or collateral claims raised by another party in the proceeding.

In accordance with the above Rule, please be advised that the Labor Compliance Program's procedure for you to exercise your opportunity to review evidence is as follows:

Within five calendar days of the date of this notice, please transmit the attached Request to Review Evidence to the following address:

_____
_____
_____
_____
_____
Attention:_____

Request to Review Evidence

To: _____
            _____
            _____
            _____

From:_____
            _____
            _____
            _____

Regarding Notice of Withholding of Contract Payments Dated _____

Our Case No.: _____

The undersigned hereby requests an opportunity to review evidence to be utilized by the Labor Compliance Program at the hearing on the Request for Review.

_____
Phone No.:_____
Fax No.:_____

ATTACHMENT G

PREVAILING WAGE HEARING REGULATIONS

CALIFORNIA CODE OF REGULATIONS
TITLE 8, CHAPTER 8, SUBCHAPTER 6
(SECTIONS 17201 through 17270)

C O N T E N T S

ARTICLE 4. HEARINGS

17240. Notice of Appointment of Hearing Officer; Objections.
17241. Time and Place of Hearing.
17242. Open Hearing; Confidential Evidence and Proceedings; and Exclusion of Witnesses.
17243. Conduct of Hearing.
17244. Evidence Rules; Hearsay.
17245. Official Notice.
17246. Failure to Appear; Relief from Default.
17247. Contempt and Sanctions.
17248. Interpreters.
17249. Hearing Record; Recording of Testimony and Other Proceedings.
17250. Burdens of Proof on Wages and Penalties.
17251. Liquidated Damages.
17252. Oral Argument and Briefs.
17253. Conclusion of Hearing; Time for Decision.

ARTICLE 6. DECISION OF THE DIRECTOR

17260. Decision.
17261. Reconsideration.
17262. Final Decision; Time for Seeking Review.
17263. Preparation of Record for Review.
17264. Request for Participation by Director in Judicial Review Proceeding.

ARTICLE 7. TRANSITIONAL RULE

17270. Applicability of these Rules to Notices Issued Between April 1, 2001 and June 30, 2001.

ARTICLE 1. GENERAL
17201. Scope and Application of Rules.
(a) These Rules govern proceedings for review of civil wage and penalty assessments and the withholding of contract payments under Articles 1 and 2 of Division 2, Part 7, Chapter 1 (commencing with Section 1720) of the Labor Code, as well as any notice assessing penalties for noncompliance with payroll record obligations under Labor Code Section 1776. The provisions of Labor Code Section 1742 and these Rules apply to all such assessments and notices served on a contractor or subcontractor on or after July 1, 2001 and provide the exclusive method for an Affected Contractor or Subcontractor to obtain review of any such notice or assessment. These Rules also apply to transitional cases in which notices were served but no court action was filed under Labor Code Sections 1731-1733 prior to July 1, 2001, in accordance with Section 17270 (Rule 70) below.
(b) These Rules do not govern debarment proceedings under Labor Code Section 1777.1, nor proceedings to review determinations with respect to the violation of apprenticeship obligations under Labor Code Sections 1777.5 and 1777.7, nor any criminal prosecution.
(c) These Rules do not preclude any remedies otherwise authorized by law to remedy violations of Division 2, Part 7, Chapter 1 of the Labor Code.
(d) For easier reference, individual sections within these prevailing wage hearing regulations are referred to as "Rules" using only their last two digits. For example, this Section 17201 may be referred to as Rule 01.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742, 1771.5, 1771.6(b), 1773.5, 1776, and 1777.1 – 1777.7, Labor Code; and Stats. 2000, Chapter 954, §1.

17202. Definitions.
For the purpose of these Rules:
(a) "Affected Contractor or Subcontractor" means a contractor or subcontractor (as defined under Labor Code Section 1722.1) to whom the Labor Commissioner has issued a civil wage and penalty assessment pursuant to Labor Code Section 1741, or to whom an Awarding Body has issued a notice of the withholding of contract payments pursuant to Labor Code Section 1771.6, or to whom the Labor Commissioner or the Division of Apprentice Standards has issued a notice assessing penalties for noncompliance with payroll record obligations under Labor Code Section 1776;
(b) "Assessment" means a civil wage and penalty assessment issued by the Labor Commissioner or his or her designee pursuant to Labor Code Section 1741, and it also includes a notice issued by either the Labor Commissioner or the Division of Apprenticeship Standards pursuant to Labor Code Section 1776;
(c) "Awarding Body" means an awarding body or body awarding the contract (as defined in Labor Code Section 1722) that exercises enforcement authority under Labor Code Section 1726 or 1771.5;
(d) "Department" means the Department of Industrial Relations;
(e) "Director" means the Director of the Department of Industrial Relations;
(f) "Enforcing Agency" means the entity which has issued an Assessment or Notice of Withholding of Contract Payments and with which a Request for Review has been filed; *i.e.,* it refers to the Labor Commissioner when review is sought from an Assessment, the Awarding Body when review is sought from a Notice of Withholding of Contract Payments, and the Division of Apprenticeship Standards when review is sought from a notice issued by that agency that assesses penalties under Labor Code Section 1776;
(g) "Hearing Officer" means any person appointed by the Director pursuant to Labor Code Section 1742(b) to conduct hearings and other proceedings under Labor Code Section 1742 and these Rules;
(h) "Joint Labor-Management Committee" means a joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code).
(i) "Labor Commissioner" means the Chief of the Division of Labor Standards Enforcement and includes his or her designee who has been authorized to carry out the Labor Commissioner's functions under Chapter 1, Part 7 of Division 2 (commencing with Section 1720) of the Labor Code;
(j) "Party" means an Affected Contractor or Subcontractor who has requested review of either an Assessment or a Notice of Withholding of Contract Payments, the Enforcing Agency that issued the Assessment or the Notice of Withholding of Contract Payments from which review is sought, and any other Person who has intervened under subparts (a), (b), or (c) of Rule 08 [Section 17208];

(k) "Person" means an individual, partnership, limited liability company, corporation, governmental subdivision or unit of a governmental subdivision, or public or private organization or entity of any character;

(l) "Representative" means a person authorized by a Party to represent that Party in a proceeding before a Hearing Officer or the Director, and includes the Labor Commissioner when the Labor Commissioner has intervened to represent the Awarding Body in a review proceeding pursuant to Labor Code Section 1771.6(b).

(m) "Rule" refers to a section within this subchapter 6. The Rule number corresponds to the last two digits of the full section number. (For example, Rule 08 is the same as Section 17208.)

(n) "Surety" has the meaning set forth in Civil Code Section 2787 and refers to the entity that issues the public works bond provided for in Civil Code Sections 3247 and 3248 or any other surety bond that guarantees the payment of wages for labor.

(o) "Working Day" means any day that is not a Saturday, Sunday, or State holiday, as determined with reference to Code of Civil Procedure Sections 12(a) and 12(b) and Government Code Sections 6700 and 6701.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 2787, 3247, and 3248, Civil Code; Sections 12a and 12b, Code of Civil Procedure; Sections 6700, 6701, 11405.60 and 11405.70, Government Code; Sections1720 et seq., 1722, 1722.1, 1726, 1741, 1742, 1742(b), 1771.5, 1771.6, 1771.6(b), and 1776, Labor Code; and 29 U.S.C. §175a.

17203. Computation of Time and Extensions of Time to Respond or Act.

(a) In computing the time within which a right may be exercised or an act is to be performed, the first day shall be excluded and the last day shall be included. If the last day is not a Working Day, the time shall be extended to the next Working Day.

(b) Unless otherwise indicated by proof of service, if the envelope was properly addressed, the mailing date shall be presumed to be: a postmark date imprinted on the envelope by the U.S. Postal Service if first-class postage was prepaid; or the date of delivery to a common carrier promising overnight delivery as shown on the carrier's receipt.

(c) Where service of any notice, decision, pleading or other document is by first class mail, and if within a given number of days after such service, a right may be exercised, or an act is to be performed, the time within which such right may be exercised or act performed is extended five days if the place of address is within the State of California, and 10 days if the place of address is outside the State of California but within the United States. However, this Rule shall not extend the time within which the Director may reconsider or modify a decision to correct an error (other than a clerical error) under Labor Code Section 1742(b).

(d) Where service of any notice, pleading, or other document is made by an authorized method other than first class mailing, extensions of time to respond or act shall be calculated in the same manner as provided under Section 1013 of the Code of Civil Procedure, unless a different requirement has been specified by the appointed Hearing Officer or by another provision of these Rules.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1010 through 1013, Code of Civil Procedure; and Section 1742(b), Labor Code.

17204. Appointment of Hearing Officers; Delegation of Appointment Authority to Chief Counsel.

(a) Upon receipt of a Request for Review of an Assessment or of a Notice of Withholding of Contract Payments, the Director, acting through the Chief Counsel (*see* subpart (d) below), shall appoint an impartial Hearing Officer to conduct the review proceeding.

(b) The appointed Hearing Officer shall be an attorney employed by the Office of the Director – Legal Unit. However, if no attorney employed by the Office of the Director – Legal Unit is available or qualified to serve in a particular matter, the appointed Hearing Officer may be any attorney or administrative law judge employed by the Department, other than an employee of the Division of Labor Standards Enforcement.

(c) Any person appointed to serve as a Hearing Officer in any matter shall possess at least the minimum qualifications for service as an administrative law judge pursuant to Government Code Section 11502(b) and shall be someone who is not precluded from serving under Government Code Section 11425.30.

(d) The Director's authority under Labor Code Section 1742(b) to appoint an impartial Hearing Officer, is delegated in all cases to the Chief Counsel of the Office of the Director or to the Chief Counsel's

designated Assistant or Acting Chief Counsel when the Chief Counsel is unavailable or disqualified from participating in a particular matter. This delegation includes all related authority under Rule 40 [Section 17240] below to appoint a different Hearing Officer to conduct all or any part of a review proceeding as well as the authority to consider and decide or to assign to another Hearing Officer for consideration and decision any motion to disqualify an appointed Hearing Officer.
NOTE: Authority cited: Sections 7, 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 11425.30 and 11502(b), Government Code; and Sections 7, 55, 59, and 1742(b), Labor Code.

17205. Authority of Hearing Officers.

(a) In any proceeding assigned for hearing and decision under the provisions of Labor Code Section 1742, the appointed Hearing Officer shall have full power, jurisdiction and authority to hold a hearing and ascertain facts for the information of the Director, to hold a prehearing conference, to issue a subpoena and subpoena duces tecum for the attendance of a Person and the production of testimony, books, documents, or other things, to compel the attendance of a Person residing anywhere in the state, to certify official acts, to regulate the course of a hearing, to grant a withdrawal, disposition or amendment, to order a continuance, to approve a stipulation voluntarily entered into by the Parties, to administer oaths and affirmations, to rule on objections, privileges, defenses, and the receipt of relevant and material evidence, to call and examine a Party or witness and introduce into the hearing record documentary or other evidence, to request a Party at any time to state the respective position or supporting theory concerning any fact or issue in the proceeding, to extend the submittal date of any proceeding, to exercise such other and additional authority as is delegated to Hearing Officers under these Rules or by an express written delegation by the Director, and to prepare a recommended decision, including a notice of findings, findings, and an order for approval by the Director.
(b) There shall be no right of appeal to or review by the Director of any decision, order, act, or refusal to act by an appointed Hearing Officer other than through the Director's review of the record in issuing or reconsidering a written decision under Rules 60 [Section 17260] and 61 [Section 17261] below.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 11512, Government Code and Section 1742(b), Labor Code.

17206. Access to Hearing Records.

(a) Hearing case records shall be available for inspection and copying by the public, to the same extent and subject to the same policies and procedures governing other records maintained by the Department. Hearing case records normally will be available for review in the office of the appointed Hearing Officer; *provided however,* that a case file may be temporarily unavailable when in use by the appointed Hearing Officer or by the Director or his or her designee.
(b) Nothing in this Rule shall authorize the disclosure of any record or exhibit that is required to be kept confidential or is otherwise exempt from disclosure by law or that has been ordered to be kept confidential by an appointed Hearing Officer.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 6250 et seq. Government Code and Section 1742(b), Labor Code.

17207. Ex Parte Communications.

(a) Except as provided in this Rule, once a Request for Review is filed, and while the proceeding is pending, there shall be no direct or indirect communication regarding any issue in the proceeding to the appointed Hearing Officer or the Director, from the Enforcing Agency or any other Party or other interested Person, without notice and the opportunity for all Parties to participate in the communication.
(b) A communication made on the record in the hearing is permissible.
(c) A communication concerning a matter of procedure or practice is presumed to be permissible, unless the topic of the communication appears to the Hearing Officer to be controversial in the context of the specific case. If so, the Hearing Officer shall so inform the other participant and may terminate the communication or continue it until after giving all Parties notice and an opportunity to participate. Any written communication concerning a matter of procedure or practice, and any written response, or a written memorandum identifying the participants and stating the substance of any such oral communication or response, shall be added to the case file so that all Parties have a reasonable opportunity to review it. Unless otherwise provided by statute or these Rules, the appointed Hearing Officer may determine a matter of procedure or practice based upon a permissible ex-parte

communication. The term "matters of procedure or practice" shall be liberally construed.

(d) A communication from the Labor Commissioner to the Hearing Officer or the Director which is deemed permissible under Government Code Section 11430.30 is permitted only if any such written communication and any written response, or a written memorandum identifying the participants and stating the substance of any such oral communication or response, is added to the case file so that all Parties have a reasonable opportunity to review it.

(e) If the Hearing Officer or the Director receives a communication in violation of this Rule, he or she shall comply with the requirements of Government Code Section 11430.50.

(f) To the extent not inconsistent with Labor Code Section 1742, the provisions of Article 7 of Chapter 4.5 of Title 2, Division 3, Part 1 (commencing with Section 11430.10) of the Government Code governing ex parte communications in administrative adjudication proceedings shall apply to review proceedings conducted under these Rules.

(g) This Rule shall not be construed as prohibiting communications between the Director and the Labor Commissioner or between the Director and any other interested Person on issues or policies of general interest that coincide with issues involved in a pending review proceeding; *provided that* (1) the communication does not directly or indirectly seek to influence the outcome of any pending proceeding; (2) the communication does not directly or indirectly identify or otherwise refer to any pending proceeding; and (3) the communication does not occur at a time when the Director or the other party to the communication knows that a proceeding in which the other party to the communication is interested is under active consideration by the Director.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 11430.10 through 11430.80, Government Code, and Section 1742(b), Labor Code.

17208. Intervention and Participation by other Interested Persons.

(a) The Labor Commissioner may intervene as a matter of right in any review from a Notice of Withholding of Contract Payments, either as the Representative of the Awarding Body or as an interested third Party.

(b) A bonding company and any Surety on a bond that secures the payment of wages covered by the Assessment or Notice of Withholding of Contract Payments shall be permitted to intervene as a matter of right in any pending review filed by the contractor or subcontractor from the Assessment or Withholding of Contract Payments in question; *provided that,* intervention is sought at or before the first prehearing conference held pursuant to Rule 31 [Section 17231] below and within either 30 days after the bonding company or Surety was served with a copy of the Assessment or Notice of Withholding of Contract Payments or 30 days after the filing of the Request for Review, whichever is later. Thereafter, any request to intervene by such a bonding company or Surety shall be treated as a motion for permissive participation under subpart (ed) of this Rule. A bonding company or Surety shall have the burden of proof with respect to any claim that it did not receive notice of the Assessment or Notice of Withholding of Contract Payments until after the filing of the Request for Review.

(c) The employee(s), labor union, or Joint Labor-Management Committee who filed the formal complaint which led the Enforcing Agency to issue the Assessment or Notice of Withholding of Contract payments shall be permitted to intervene in a pending review filed by the contractor or subcontractor from the Assessment or Withholding of Contract Payments in question; *provided that,* intervention is sought at or before the first prehearing conference held pursuant to Rule 31 [Section 17231] below and there is no good cause to deny the request. Thereafter, any request to intervene by such employee(s), labor union, or Joint Labor-Management Committee shall be treated as a motion for permissive participation as an interested Person under subpart (d) of this Rule.

(d) Any other Person may move to participate as an interested Person in a proceeding in which that Person claims a substantial interest in the issues or underlying controversy and in which that Person's participation is likely to assist and not hinder or protract the hearing and determination of the case by the Hearing Officer and the Director. Interested Persons who are permitted to participate under this Rule shall *not* be regarded as Parties to the proceeding for any purpose, but may be provided notices and the opportunity to present arguments under such terms as the Hearing Officer deems appropriate.

(e) Rights to intervene or participate as an interested party are only in accordance with this Rule. Intervention or permissive participation under this Rule shall not expand the scope of issues under review nor shall it extend any rights or interests which have been forfeited as a result of an Affected Contractor or Subcontractor's own failure to file a timely Request for Review. The Hearing Officer may impose

conditions on an intervener's or other interested Person's participation in the proceeding, including but not limited to those conditions specified in Government Code §11440.50(c).

(f) No Person shall be required to seek intervention in a review proceeding as a condition for pursuing any other remedy available to that Person for the enforcement of the prevailing wage requirements of Division 2, Part 7, Chapter 1 (starting with Section 1720) of the Labor Code.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 11440.50(c), Government Code; and Sections 1720 et seq., 1741, 1742, and 1771.6, Labor Code.

17209. Representation at Hearing.

(a) A Party may appear in person or through an authorized Representative, who need not be an attorney at law; *however,* a Party shall use the form Authorization for Representation by Non-Attorney [8 CCR 17209(b) (New 1/15/02)] to authorize representation by any non-attorney who is not an owner, officer, or managing agent of that Party.

(b) Upon formal notification that a Party is being represented by a particular individual or firm, service of subsequent notices in the matter shall be made on the Representative, either in addition to or instead of the Party, unless and until such authorization is terminated or withdrawn by further written notice. Service upon an authorized Representative shall be effective for all purposes and shall control the determination of any notice period or the running of any time limit for the performance of any acts, regardless of whether or when such notice may also have been served directly on the represented Party.

(c) An authorized Representative shall be deemed to control all matters respecting the interests of the represented Party in the proceedings.

(d) Parties and their Representatives shall have a continuing duty to keep the appointed Hearing Officer and all other Parties to the proceeding informed of their current address and telephone number.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

17210. Proper Method of Service.

(a) Unless a particular method of service is specifically prescribed by statute or these Rules, service may be made by: (1) personal delivery; (2) priority or first class mailing postage prepaid through the U. S. Postal Service; (3) any other means authorized under Code of Civil Procedure Section 1013; or (4) if authorized by the Hearing Officer pursuant to Rule 11 [Section 17211] below, by facsimile or other electronic means.

(b) Service is complete at the time of personal delivery or mailing, or at the time of transmission as determined under Rule 11 [Section 17211] below.

(c) Proof of service shall be filed with the document and may be made by: (1) affidavit or declaration of service; (2) written statement endorsed upon the document served and signed by the party making the statement; or (3) copy of letter of transmittal.

(d) Service on a Party who has appeared through an attorney or other Representative shall be made upon such attorney or Representative.

(e) In each proceeding, the Hearing Officer shall maintain an official address record which shall contain the names and addresses of all Parties and their Representatives, agents, or attorneys of record. Any change or substitution in such information must be communicated promptly in writing to the Hearing Officer. The official address record may also include the names and addresses of interested Persons who have been permitted to participate under Rule 08(d) [Section 17208].

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1013, Code of Civil Procedure and Section 1742(b), Labor Code.

17211. Filing and Service of Documents by Facsimile or Other Electronic Means.

(a) In individual cases the Hearing Officer may authorize the filing and service of documents by facsimile or by other electronic means, subject to reasonable restrictions on the time of transmission and the page length of any document or group of documents that may be transmitted by facsimile or other electronic means, and subject to any further requirements on the use of cover sheets or the subsequent filing and service of originals or hard copies of documents as the Hearing Officer deems appropriate. Filing and service by facsimile or other electronic means shall not be authorized under terms that substantially disadvantage any Party appearing or participating in the proceeding as a matter of right. A document transmitted by facsimile or other electronic means shall not be considered received until the next Working

Day following transmission unless it is transmitted on a Working Day and the entire transmission is completed by no later than 4:00 p.m. Pacific Time.

(b) Filings and service by facsimile or other electronic means shall not authorized or accepted as a substitute for another method of service that is required by statute or these Rules, unless the Party served has expressly waived its right to be served in the required manner.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

17212. Administrative Adjudication Bill of Rights.

(a) The provisions of the Administrative Adjudication Bill of Rights found in Article 6 of Chapter 4.5 of Title 2, Division 3, Part 1 (commencing with Section 11425.10) of the Government Code shall apply to these review proceedings to the extent not inconsistent with a state or federal statute, a federal regulation, or a court decision which applies specifically to the Department. The enumeration of certain rights in these Rules may expand but shall not be construed as limiting the same or similar provision of the Administrative Adjudication Bill of Rights; nor shall the enumeration of certain rights in these Rules be construed as negating other statutory rights not stated.

(b) Ex parte communications shall be permitted between the appointed Hearing Officer and the Director in accordance with Government Code Section 11430.80(b).

(c) The presentation or submission of any written communication by a Party or other interested Person during the course of a review proceeding shall be governed by the requirements of Government Code §11440.60 (b) and (c).

(d) Unless otherwise indicated by express reference within the body of one of these Rules, the provisions of Chapter 5 of Title 2, Division 3, Part 1 (commencing with Section 11500) of the Government Code shall *not* apply to these review proceedings.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 11415.20, 11425.10 et seq., and 11430.80(b), Government Code; and Section 1742(b), Labor Code.

ARTICLE 2. ASSESSMENT OR NOTICE AND REQUEST FOR REVIEW

17220. Service and Contents of Assessment or Notice of Withholding of Contract Payments.

(a) An Assessment, a Notice of Withholding of Contract Payments, or a notice assessing penalties under Labor Code Section 1776 shall be served on the contractor and subcontractor, if applicable, by first class and certified mail pursuant to the requirements of Code of Civil Procedure Section 1013. A copy of the notice shall also be served by certified mail on any bonding company issuing a bond that secures the payment of the wages covered by the Assessment or Notice and to any Surety on a bond, if the identities of such companies are known or reasonably ascertainable.   The identity of any Surety issuing a bond for the benefit of an Awarding Body as designated obligee, shall be deemed "known or reasonably ascertainable," and the Surety shall be deemed to have received the notice required under this subpart if sent to the address appearing on the face of the bond.

(b) An Assessment or Notice of Withholding of Contract Payments shall be in writing and shall include the following information:

    (1) a description of the nature of the violation and basis for the Assessment or Notice; and

    (2) the amount of wages, penalties, and forfeitures due, including a specification of amounts that have been or will be withheld from available contract payments, as well as all additional amounts that the Enforcing Agency has determined are due, including the amount of any liquidated damages that potentially may be awarded under Labor Code Section 1742.1.

(c) An Assessment or Notice of Withholding of Contract Payments shall also include the following information:

    (1) the name and address of the office to whom a Request for Review may be sent;

    (2) information on the procedures for obtaining review of the Assessment or Withholding of Contract Payments;

    (3) notice of the Opportunity to Request a Settlement Meeting under Rule 21 [Section 17221] below; and

    (4) the following statement which shall appear in bold or another type face that makes it stand out

from the other text:

> **Failure by a contractor or subcontractor to submit a timely Request for Review will result in a final order which shall be binding on the contractor and subcontractor, and which shall also be binding, with respect to the amount due, on a bonding company issuing a bond that secures the payment of wages and a surety on a bond. Labor Code Section 1743**.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1013, Code of Civil Procedure, and Sections 1741, 1742, 1743, 1771.6, and 1776, Labor Code.

17221. Opportunity for Early Settlement.

(a) The Affected Contractor or Subcontractor may, within 30 days following the service of an Assessment or Notice of Withholding of Contract Payments, request a meeting with the Enforcing Agency for the purpose of attempting to settle the dispute regarding the Assessment or Notice.

(b) Upon receipt of a timely written request for a settlement meeting, the Enforcing Agency shall afford the Affected Contractor or Subcontractor a reasonable opportunity to meet for such purpose. The settlement meeting may be held in person or by telephone and shall take place before expiration of the 60-day limit for filing a Request for Review under Rule 22 [Section 17222].

(c) Nothing herein shall preclude the Parties from meeting or attempting to settle a dispute after expiration of the time for making a request or after the filing of a Request for Review.

(d) Neither the making or pendency of a request for a settlement meeting, nor the fact that the Parties have met or have failed or refused to meet as required by this Rule shall serve to extend the time for filing a Request for Review under Rule 22 [Section 17222] below.

(e) No evidence of anything said or any admission made for the purpose of, in the course of, or pursuant to, such a settlement meeting shall be admissible or subject to discovery in any administrative or civil proceeding. No writing prepared for the purpose of, in the course of, or pursuant to, such a settlement meeting, other than a final settlement agreement, shall be admissible or subject to discovery in any administrative or civil proceeding.

NOTE: Authority cited: Sections 55, 59, 1742(b) and 1773.5, Labor Code. Reference: Sections 1742, 1742.1, and 1771.6, Labor Code.

17222. Filing of Request for Review.

(a) Any Request for Review of an Assessment or of a Notice of Withholding of Contract Wages shall be transmitted in writing to the Enforcing Agency within 60 days after service of the Assessment or Notice. Failure to request review within 60 days shall result in the Assessment or the Withholding of Contract Wages becoming final and not subject to further review under these Rules.

(b) A Request for Review shall be transmitted to the office of the Enforcing Agency designated on the Assessment or Notice of Withholding of Contract Payments from which review is sought.

(c) A Request for Review shall be deemed filed on the date of mailing, as determined by the U.S. Postal Service postmark date on the envelope or the overnight carrier's receipt in accordance with Rule 03(b) [Section 17203(b)] above, or on the date of receipt by the designated office of the Enforcing Agency, whichever is earlier.

(d) An additional courtesy copy of the Request for Review may be served on the Department by mailing to the address specified in Rule 23 [Section 17223] below at any time on or after the filing of the Request for Review with the Enforcing Agency. The service of a courtesy copy on the Department shall *not* be effective for invoking the Director's review authority under Labor Code Section 1742; however, it may determine the time within which the hearing shall be commenced under Rule 41(a) [Section 17241(a)] below.

(e) A Request for Review either shall clearly identify the Assessment or Notice from which review is sought, including the date of the Assessment or Notice, or it shall include a copy of the Assessment or Notice as an attachment. A Request for Review shall also set forth the basis upon which the Assessment or Notice is being contested. A Request for Review shall be liberally construed in favor of its sufficiency; however, the Hearing Officer may require the Party seeking review to provide a further specification of the issues or claims being contested and a specification of the basis for contesting those matters.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742, and 1771.6(a), Labor Code.

17223. Transmittal of Request for Review to Department.

Within ten (10) days followings its receipt of a Request for Review, the Enforcing Agency shall transmit to the Office of the Director – Legal Unit, the Request for Review and copies of the Assessment or Notice of Withholding of Contract Wages, any Audit Summary that accompanied the Assessment or Notice, and a Proof of Service or other document showing the name and address of any bonding company or Surety entitled to notice under Rule 20(a) [Section 17220(a)] above. The Enforcing Agency shall transmit these items to the following address:

> Department of Industrial Relations
> Office of the Director - Legal Unit
> Attention: Lead Hearing Officer
> P.O. Box 420603
> San Francisco, CA 94142-0603

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742(a) and 1771.6(a), Labor Code.

17224. Disclosure of Evidence.

(a) Within ten (10) days following its receipt of a Request for Review, the Enforcing Agency shall also notify the Affected Contractor or Subcontractor of its opportunity and the procedures for reviewing evidence to be utilized by the Enforcing Agency at the hearing on the Request for Review.

(b) An Enforcing Agency shall be deemed to have provided the opportunity to review evidence required by this Rule if it (1) gives the Affected Contractor or Subcontractor the option, at the Affected Contractor or Subcontractor's own expense, to either (A) obtain copies of all such evidence through a commercial copying service or (B) inspect and copy such evidence at the office of the Enforcing Agency during normal business hours; or if (2) the Enforcing Agency at its own expense forwards copies of all such evidence to the Affected Contractor or Subcontractor.

(c) The evidence required to be provided under this Rule shall include the identity of witnesses whose testimony the Enforcing Agency intends to present, either in person at the hearing or by declaration or affidavit. This provision shall not be construed as requiring the Enforcing Agency to prepare or provide any separate listing of witnesses whose identities are disclosed within the written materials made available under subpart (a).

(d) The Enforcing Agency shall make evidence available for review as specified in subparts (a) through (c) within 20 days of its receipt of the Request for Review; *provided that*, this deadline may be extended by written request or agreement of the Affected Contractor or Subcontractor. The Enforcing Agency's failure to make evidence available for review as required by Labor Code Section 1742(b) and this Rule, shall preclude the Enforcing Agency from introducing such evidence in proceedings before the Hearing Officer or the Director.

(e) This Rule shall not preclude the Enforcing Agency from relying upon or presenting any evidence first obtained after the initial disclosure of evidence under subparts (a) through (d), *provided that*, such evidence is promptly disclosed to the Affected Contractor or Subcontractor. This Rule also shall not preclude the Enforcing Agency from presenting previously undisclosed evidence to rebut new or collateral claims raised by another Party in the proceeding.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742(b) and 1771.6, Labor Code.

17225. Withdrawal of Request for Review; Reinstatement.

(a) An Affected Contractor or Subcontractor may withdraw a Request for Review by written notification at any time before a decision is issued or by oral motion on the hearing record. The Hearing Officer may grant such withdrawal by letter, order or decision served on the Parties.

(b) For good cause, a Request for Review so dismissed may be reinstated by the Hearing Officer or the Director upon a showing that the withdrawal resulted from misinformation given by the Enforcing Agency or otherwise from fraud or coercion. A motion for reinstatement must be filed within 60 days of service of the letter, order or decision granting withdrawal of the Request for Review or, in the event of fraud which could not have been suspected or discovered with the exercise of reasonable diligence, within 60 days of discovery of such fraud. The motion shall be accompanied by a declaration containing a statement that any facts therein are based upon the personal knowledge of the declarant.

(c) Notwithstanding any application or showing made under subpart (b) of this Rule, neither the Hearing

Officer nor the Director may reinstate any Request for Review where the underlying Assessment or Withholding of Contract Payments has become final and entered as a court judgment.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742 and 1771.6, Labor Code.

17226. Dismissal or Amendment of Assessment or of Notice of Withholding of Contract Payments.
(a) Upon motion to the appointed Hearing Officer, an Enforcing Agency may dismiss or amend an Assessment or Notice of Withholding of Contract Payments as follows:
> (1) An Assessment or Notice of Withholding may be dismissed or amended to eliminate or reduce all or part of any claim for wages, damages, or penalties that has been satisfied or that is not warranted under the facts and circumstances of the case or to conform to an order of the Hearing Officer or the Director.
> (2) An Assessment or Notice of Withholding may be amended to eliminate a claim for penalties as to the affected contractor upon a determination that the affected contractor is not liable for same under either Labor Code Section 1775(b) [subcontractor's failure to pay prevailing rate] or Labor Code Section 1776 (g) [failure to comply with request for certified payroll records].
> (3) For good cause, an Assessment or Notice of Withholding of Contract Payments may be amended to revise or increase any claim for wages, damages, or penalties based upon a recomputation or the discovery of new evidence subsequent to the issuance of the original Assessment or Notice.

(b) The Hearing Officer shall grant any motion to dismiss or amend an Assessment or Notice of Withholding downward under subparts (a)(1) or (a)(2) absent a showing that such dismissal or amendment will result in the forfeiture of substantial substantive rights of another Party to the proceeding. The Hearing Officer may grant a motion to amend an Assessment or Notice of Withholding upward under subpart (a)(3) under such terms as are just, including where appropriate the extension of an additional opportunity for early settlement under Rule 21 [Section 17221]. Unless the Hearing Officer determines otherwise, an amended Assessment or Notice of Withholding shall be deemed fully controverted without need for filing an additional or amended Request for Review.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742, 1771.6, 1775(b), and 1776(g), Labor Code.

17227. Early Disposition of Untimely Assessment, Withholding, or Request for Review.
(a) Upon the application of any Party or upon his or her own motion, the appointed Hearing Officer may issue an Order to Show Cause why an Assessment, a Withholding of Contract Payments, or a Request for Review should not be dismissed as untimely under the relevant statute.
(b) An Order to Show Cause issued under subpart (a) of this Rule shall be served on all Parties who have appeared or been served with any prior notice in the matter and shall provide the Parties with at least 10 days to respond in writing to the Order to Show Cause and an additional 5 days following the service of such responses to reply to any submission by any other Party. Evidence submitted in support or opposition to an Order to Show Cause shall be by affidavit or declaration under penalty of perjury. There shall be no oral hearing on an Order to Show Cause issued under this Rule unless requested by a Party or by the Hearing Officer.
(c) After the time for submitting responses and replies to the Order to Show Cause has passed or after the oral hearing, if any, the Hearing Officer may do one of the following: (1) recommend that the Director issue a decision setting aside the Assessment or Withholding of Contract Payments or dismissing the Request for Review as untimely under the statute; (2) find the Assessment, Withholding, or Request for Review timely and direct that the matter proceed to hearing on the merits; or (3) reserve the timeliness issue for further consideration and determination in connection with the hearing on the merits.
(d) A decision by the Director which sets asides an Assessment or Withholding of Contract Payments or which dismisses a Request for Review as untimely shall be subject to reconsideration and to judicial review in the same manner as any other Final Order or Decision of the Director. A determination by the Hearing Officer that the Assessment, Withholding, or Request for Review was timely or that the timeliness issue should be reserved for further consideration and determination in connection with the hearing on the merits shall *not* be subject to appeal or review except as part of any reconsideration or appeal from the Decision of the Director made after the hearing on the merits.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1741,

1742, 1771.5, and 1771.6, Labor Code.

17228. Finality of Assessment or of Withholding of Contract Payments When No Timely Request for Review is Filed; Authority of Awarding Body to Disburse Withheld Funds.

(a) Upon the failure of an Affected Contractor or Subcontractor to file a timely Request for Review under Labor Code Section 1742(a) and Rule 22(a) [Section 17222(a)] above, the Assessment or Notice of Withholding of Contract Payments shall become a "final order" as to the Affected Contractor or Subcontractor that the Labor Commissioner may certify and file with the superior court in accordance with Labor Code Section 1742(d).

(b) Where an Assessment or Notice of Withholding of Contract Payments has become final as to at least one but not as to every Affected Contractor or Subcontractor, the Awarding Body shall continue to withhold and retain the amounts required to satisfy any wages and penalties at stake in a review proceeding initiated by any other Affected Contractor or Subcontractor until there is a final order in that proceeding that is no longer subject to judicial review.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1727, 1742, and 1771.6, Labor Code.

17229. Finality of Notice of Withholding of Contract Payments; Authority of Awarding Body to Recover Additional Funds.

Where a Notice of Withholding of Contract Payments seeks to recover wages, penalties, or damages in excess of the amounts withheld from available contract payments (*see* Rule 20(b)(2) [Section 17220(b)(2)] above), an Awarding Body may recover any excess amounts that become or remain due when the Notice of Withholding of Contract Payments has become final under Labor Code Section 1771.6. To recover the excess amounts, the Awarding Body shall transmit to the Labor Commissioner the Notice together with any decision of the Director or court that has become final and not subject to further review. The Labor Commissioner in turn shall certify and file the final order with the superior court in accordance with Labor Code Section 1742(d).

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742(d), and 1771.6, Labor Code.

ARTICLE 3. PREHEARING PROCEDURES

17230. Scheduling of Hearing; Continuances and Tolling.

(a) The appointed Hearing Officer shall establish the place and time of the hearing on the merits, giving due consideration to the needs of all Parties and the statutory time limits for hearing and deciding the matter. Parties are encouraged to communicate scheduling needs to the Hearing Officer and all other Parties at the earliest opportunity. It shall not be a violation of Rule 07 [Section 17207]'s prohibition on ex parte communications for the Hearing Officer or his or her designee to communicate with Parties individually for purposes of clearing dates and times and proposing locations for the hearing. The Hearing Officer may also conduct a prehearing conference by telephone or any other expeditious means for purposes of establishing the time and place of the hearing.

(b) Once a hearing date is set, a request for a continuance that is not joined in by all other Parties or that is for more than 30 days will not be granted absent a showing of extraordinary circumstances, giving due regard to the potential prejudice to other Parties in the case and other Persons affected by the matter under review. Absent an enforceable waiver (*see* subpart (d) below), no continuance will be granted nor any proceeding otherwise delayed if doing so is likely to prevent the Hearing Officer from commencing the hearing on the matter within the statutory time limit.

(c) A request for a continuance that is for 30 days or less and is joined by all Parties shall be granted upon a showing of good cause. Notwithstanding subpart (b) above, a unilateral request for a continuance made by the Party who filed the Request for Review shall be granted upon a showing of good cause if the new date for commencing the hearing is no more than 150 days after the date of service of the Assessment or Notice of Withholding of Contract Payments.

(d) If a Party makes or joins in any request that would delay or otherwise extend the time for hearing or deciding a review proceeding beyond any prescribed time limit, such request shall also be deemed a waiver by that Party of that time limit.

(e) The time limits for hearing and deciding a review proceeding shall also be deemed tolled (1) when

proceedings are suspended to seek judicial enforcement of a subpoena or other order to compel the attendance, testimony, or production of evidence by a necessary witness; (2) when the proceedings are stayed or enjoined by any court order; (3) between the time that a proceeding is dismissed and then ordered reinstated under Rule 25 [Section 17225] above; (4) upon the order of a court reinstating or requiring rehearing of the merits of a proceeding; or (5) during the pendency of any other cause beyond the Director's direct control (including but not limited to natural disasters, temporary unavailability of a suitable hearing facility, or absence of budget authority) that prevents the Director or any appointed Hearing Officer from carrying out his or her responsibilities under these Rules.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

17231. Prehearing Conference.
(a) Upon the application of any Party or upon his or her own motion, the appointed Hearing Officer may conduct a prehearing conference for any purpose that may expedite or assist the preparation of the matter for hearing or the disposition of the Request for Review. The prehearing conference may be conducted by telephone or other means that is convenient to the Hearing Officer and the Parties.
(b) The Hearing Officer shall provide reasonable advance notice of any prehearing conference conducted pursuant to this Rule. The Notice shall advise the Parties of the matters which the Hearing Officer intends to cover in the prehearing conference, but the failure of the Notice to enumerate some matter shall not preclude its discussion or consideration at the conference.
(c) With or without a prehearing conference, the Hearing Officer may issue such procedural Orders as are appropriate for the submission of evidence or briefs and conduct of the hearing, consistent with the substantial rights of the affected Parties.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 11511.5, Government Code, and Section 1742(b), Labor Code.

17232. Consolidation and Severance.
(a) The Hearing Officer may consolidate for hearing and decision any number of proceedings where the facts and circumstances are similar and consolidation will result in conservation of time and expense. Where the Hearing Officer proposes to consolidate proceedings on his or her own motion, the Parties shall be given reasonable notice and an opportunity to object before consolidation is ordered.
(b) The Hearing Officer may sever consolidated proceedings for good cause.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 11507.3, Government Code, and Section 1742(b), Labor Code.

17233. Prehearing Motions; Cut Off Date.
(a) Any motion made in advance of the hearing on the merits, any opposition thereto, and any further reply shall be in writing and directed to the appointed Hearing Officer. No particular format shall be required; however, the following information shall appear prominently on the first page: (1) the case name (*i.e.,* names of the Parties); (2) any assigned case number; (3) the name of the Hearing Officer to whom the paper is being submitted; (4) the identity of the Party submitting the paper; (5) the nature of the relief sought; and (6) the scheduled date, if any, for the hearing on the merits of the Request for Review. The motion shall also include a Proof of Service, as defined in Rule 10 [Section 17210] above, showing that copies have been served on all other Parties to the proceeding.
(b) Prehearing motions shall be served and filed no later than 20 days prior to the hearing on the merits of the Request for Review. Any opposition shall be served and filed no later than 10 days after service of the motion or at least 7 days prior to the hearing on the merits, whichever is earlier. The Hearing Officer may in his or her discretion decide the motion in writing in advance of the hearing on the merits or reserve the matter for further consideration and determination at the hearing on the merits.
(c) There shall be no right to a separate oral hearing on any prehearing motion, except in those instances in which an oral hearing has been specially requested by a Party or the Hearing Officer *and* in which the enforcement or forfeiture of a fundamental right is at stake. When the Hearing Officer determines that such an oral hearing is necessary or appropriate, it may be conducted by telephone or other manner that is convenient to the Parties.
(d) With the exception of timeliness challenges under Rule 27 [Section 17227], prehearing motions which seek to dispose of a Request for Review or any related claim or defense are disfavored and ordinarily will

not be considered prior to the hearing on the merits.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

17234. Evidence by Affidavit or Declaration.
(a) At any time 20 or more days prior to commencement of a hearing, a Party may serve upon all other Parties a copy of any affidavit or declaration which the proponent proposes to introduce in evidence, together with a notice as provided in subpart (b). Unless another Party, within 10 days after service of such notice, delivers to the proponent a request to cross-examine the affiant or declarant, the right to cross-examine such affiant or declarant is waived and the affidavit or declaration, if introduced in evidence, shall be given the same effect as if the affiant or declarant had testified in person. If an opportunity to cross-examine an affiant or declarant is not afforded after request therefor is made as herein provided, the affidavit or declaration may be introduced in evidence, but shall be given only the same effect as other hearsay evidence.
(b) The notice referred to in subpart (a) shall be substantially in the following form with the appropriate information inserted in the places enclosed by brackets:

> "The accompanying affidavit or declaration of [name of affiant or declarant] will be introduced as evidence at the hearing in [title and other information identifying the proceeding]. [Name of affiant or declarant] will not be called to testify orally, and you will not be entitled to question the affiant or declarant unless you notify [name of the proponent, Representative, agent or attorney] at [address] that you wish to cross-examine the affiant or declarant. Your request must be mailed or delivered to [name of proponent, Representative, agent or attorney] on or before [specify date *at least* 10 days after anticipated date of service of this notice on the other Parties]."

(c)   If a timely request is made to cross-examine an affiant or declarant under this Rule, the burden of producing that witness at the hearing shall be upon the proponent of the witness. If the proponent fails to produce the witness, the affidavit or declaration may be introduced in evidence, but shall be given only the same effect as other hearsay evidence under Rule 44 [Section 17244].
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Rule 1613, California Rules of Court; Section 11514, Government Code; and Section 1742(b), Labor Code.

17235. Subpoena and Subpoena Duces Tecum.
(a) Subpoenas and subpoenas duces tecum may be issued for attendance at a hearing and for the production of documents at any reasonable time and place or at a hearing.
(b) Subpoenas and subpoenas duces tecum shall be issued by the Hearing Officer at the request of a Party, or by the attorney of record for a Party, in accordance with Sections 1985 to 1985.6, inclusive, of the Code of Civil Procedure. The burden of serving a subpoena that has been issued by the Hearing Officer shall be upon the Party who requested the subpoena.
(c) Service of subpoenas and subpoenas duces tecum, objections thereto, and mileage and witness fees shall be governed by the provisions of Government Code Sections 11450.20 through 11450.40.
(d) Subpoenas and subpoenas duces tecum shall be enforceable through the Contempt and Monetary Sanctions provision set forth in Rule 47 [Section 17247] below. A Party aggrieved by the failure or refusal of any witness to obey a subpoena or subpoena duces tecum shall have the burden of showing to the satisfaction of the Hearing Officer that the subpoena or subpoena duces tecum was properly issued and served and that the testimony or evidence sought was necessary to prove or disprove a significant claim or defense in the proceeding.
NOTE: Authority cited: 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1985 through 1988, Code of Civil Procedure; Section 1563, Evidence Code; Sections 11450.20 through 11455.30, Government Code; and Section 1742(b), Labor Code.

17236. Written Notice to Party in Lieu of Subpoena.
(a) In the case of the production of a Party of record in the proceeding or of a Person for whose benefit a proceeding is prosecuted or defended, the service of a subpoena upon any such witness is not required if written notice requesting the witness to attend, with the time and place of the hearing, is served on the attorney of the Party or Person. For purposes of this Rule, a Party of record in the proceeding or Person for whose benefit a proceeding is prosecuted or defended includes an officer, director, or managing agent

of any such Party or Person.

(b) Service of written notice to attend under this Rule shall be made in the same manner and subject to the same conditions provided in Section 1987 of the Code of Civil Procedure for service of written notice to attend in a civil action or proceeding.

(c) The Hearing Officer shall have authority under Rule 47 [Section 17247] below to sanction a Party who fails or refuses to comply with a written notice to attend that meets the requirements of this Rule and has been timely served in accordance with Section 1987 of the Code of Civil Procedure. However, the Hearing Officer may not initiate contempt proceedings against the witness for failing to appear based solely on non-compliance with a written notice to attend served on the Party's attorney. A Party seeking sanctions for another Party's failure or refusal to comply with a written notice to attend shall have the burden of showing to the satisfaction of the Hearing Officer that the written notice to attend was properly issued and timely served and that the testimony or evidence sought was necessary to prove or disprove a significant claim or defense in the proceeding.

NOTE: Authority cited: 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1987, Code of Civil Procedure; Sections 11450.50 through 11455.30, Government Code; and Section 1742(b), Labor Code.

17237. Depositions and Other Discovery.

(a) There shall be no right to take oral depositions or obtain any other form of discovery that is not expressly authorized under these Rules.

(b) Oral depositions may be conducted only by stipulation of all Parties to the proceedings or by order of the appointed Hearing Officer upon a showing of substantial good cause. Oral depositions will be permitted only for purposes of obtaining the testimony of witnesses who are likely to be unavailable to testify at the hearing.

(c) Nothing in this Rule shall preclude the use of deposition testimony or other evidence obtained in separate proceedings, if such evidence is otherwise relevant and admissible.

NOTE: Authority cited: 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1987, Code of Civil Procedure; Sections 11450.50 through 11455.30, Government Code; and Section 1742(b), Labor Code.

ARTICLE 4. HEARINGS

17240. Notice of Appointment of Hearing Officer; Objections.

(a) Notice of the Appointment of a Hearing Officer under Rule 04 [Section 17204] above shall be provided to the Parties as soon as practicable and no later than when the matter is noticed for a prehearing conference or hearing.

(b) The Director may appoint a different Hearing Officer to conduct and hear the review or to conduct and dispose of any preliminary or procedural matter in a given case.

(c) A Party wishing to object to the appointment of a particular Hearing Officer, including for any one or more of the grounds specified in Sections 11425.30 and 11425.40 of the Government Code or Section 1742(b) of the Labor Code, shall within 10 days after receiving notice of the appointment and no later than the start of any hearing on the merits, *whichever is earlier*, file a motion to disqualify the appointed Hearing Officer together with a supporting affidavit or declaration. The motion shall be filed with the Chief Counsel of the Office of the Director at the address indicated in Rule 23 [Section 17223] above. Notwithstanding the foregoing time limits, if a Party subsequently discovers facts constituting grounds for the disqualification of the appointed Hearing Officer, including but not limited to that the Hearing Officer has received a prohibited ex parte communication in the pending case, the motion shall be filed as soon as practicable after the facts constituting grounds for disqualification are discovered.

(d) Upon receipt of a motion to disqualify the appointed Hearing Officer, the Director may: (1) consider and decide the motion or appoint another Hearing Officer to consider and decide the motion, in which case the challenged Hearing Officer shall first be given an opportunity to respond to the motion, but no proceedings shall be conducted by the challenged Hearing Officer until the motion is determined; or (2) appoint another Hearing Officer to hear the Request for Review, in which case the motion shall be deemed moot.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code . Reference: Sections 170.3(c)(1), Code of Civil Procedure; Sections 11425.30 and 11425.40, Government Code; and Section 1742(b), Labor Code.

17241. Time and Place of Hearing.
(a) A hearing on the merits of a timely Request for Review shall be commenced within 90 days after the date it is received by the Office of the Director. The hearing shall be conducted at a suitable location within the county where the appointed Hearing Officer maintains his or her regular office, unless the hearing is moved to a different county in accordance with subpart (b) below.
(b) Upon the agreement of the Parties or upon a showing of good cause by either the Party who filed the Request for Review or the Enforcing Agency, the hearing shall be conducted at a suitable location within either (1) the county where a majority of the subject public works employment was performed, or (2) any other county that is proximate to or convenient for the Parties and necessary witnesses.
(c) A suitable location under this Section means one that is open and accessible to members of the public and which includes appropriate facilities for the recording of testimony. Any facility that is regularly used by any state agency or by the Awarding Body for public hearings and that will reasonably accommodate the anticipated number of Parties and witnesses involved in the proceeding, is presumed suitable in the absence of a contrary showing. Parties seeking to change the location of a hearing under subpart (b) shall make reasonable efforts to identify, agree upon, and arrange for the availability of a suitable location within a county specified in subpart (b)(1) or (b)(2).
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 11425.20, Government Code; and Section 1742(b), Labor Code.

17242. Open Hearing; Confidential Evidence and Proceedings; and Exclusion of Witnesses.
(a) Subject to the qualifications set forth below, the hearing shall be open to the public. If all or part of the hearing is conducted by telephone, television, or other electronic means, the Hearing Officer shall conduct the hearing from a location where members of the public may be physically present, and members of the public shall also have a reasonable right of access to the hearing record and any transcript of the proceedings.
(b) Notwithstanding the provisions of subpart (a), the Hearing Officer may order closure of a hearing or make other protective orders to the extent necessary to: (1) preserve the confidentiality of information that is privileged, confidential, or otherwise protected by law; (2) ensure a fair hearing in the circumstances of the particular case; or (3) protect a minor witness or a witness with a developmental disability from intimidation or other harm, taking into account the rights of all persons.
(c) Upon motion of any Party or upon his or her own motion, the Hearing Officer may exclude from the hearing room any witnesses not at the time under examination. However, a Party to the proceeding and the Party's Representative shall not be excluded.
(d) This Section does not apply to any prehearing or settlement conference.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 777, Evidence Code, Section 11425.20, Government Code, and Section 1742(b), Labor Code.

17243. Conduct of Hearing.
(a) Testimony shall be taken only on oath or affirmation under penalty of perjury.
(b) Every Party shall have the right to call and examine witnesses; to introduce exhibits; to question opposing witnesses on any matter relevant to the issues even though that matter was not covered in the direct examination; to impeach any witness regardless of which Party first called the witness to testify; and to rebut any opposing evidence. A Party may be called by an opposing Party and examined as if under cross-examination, whether or not the Party called has testified or intends to testify on his or her own behalf.
(c) The Hearing Officer may call and examine any Party or witness and may on his or her own motion introduce exhibits.
(d) The Hearing Officer shall control the taking of evidence and other course of proceedings in a hearing and shall exercise that control in a manner best suited to ascertain the facts and safeguard the rights of the Parties. Prior to taking evidence, the Hearing Officer shall define the issues and explain the order in which evidence will be presented; *provided that*, for good cause the Hearing Officer later may vary the order of presentation as circumstances warrant.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 11513, Government Code; and Section 1742(b), Labor Code.

17244. Evidence Rules; Hearsay.
(a) The hearing need not be conducted according to technical rules relating to evidence and witnesses. Any relevant evidence shall be admitted if it is the sort of evidence on which responsible persons are accustomed to rely in the conduct of serious affairs, regardless of the existence of any common law or statutory rule which might make improper the admission of such evidence over objection in civil actions.
(b) The rules of privilege shall be recognized to the same extent and applied in the same manner as in the courts of this state.
(c) The Hearing Officer may exclude evidence if its probative value is substantially outweighed by the probability that its admission will necessitate undue consumption of time.
(d) Hearsay evidence is admissible but shall not be sufficient in itself to support a finding unless it either would be admissible over objection in a civil action or no Party raises an objection to such use. Unless previously waived, an objection or argument that evidence is insufficient in itself to support a finding because of its hearsay character shall be timely if presented at any time before submission of the case for decision.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 11513, Government Code; and Section 1742(b), Labor Code.

17245. Official Notice.
(a) A Hearing Officer may take official notice of (1) the Director's General Prevailing Wage Determinations, the Director's Precedential Coverage Decisions, and wage data, studies, and reports issued by the Division of Labor Statistics and Research; (2) any other generally accepted technical fact within the fields of labor and employment that are regulated by the Director under Divisions 1, 2, and 3 of the Labor Code; and (3) any fact which either must or may be judicially noticed by the courts of this state under Evidence Code Sections 451 and 452.
(b) The Parties participating in a hearing shall be informed of those matters as to which official notice is proposed to be taken and given a reasonable opportunity to show why and the extent to which official notice should or should not be taken.
(c) The Hearing Officer or the Director shall state in a decision, order, or on the record the matters as to which official notice has been taken.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 451, 452 and 455, Evidence Code; Section 11515, Government Code; and Section 1742(b), Labor Code.

17246. Failure to Appear; Relief from Default.
(a) Upon the failure of any Party to appear at a duly noticed hearing, the Hearing Officer may proceed in that Party's absence and may recommend whatever decision is warranted by the available evidence, including any lawful inferences that can be drawn from an absence of proof by the non-appearing Party.
(b) For good cause and under such terms as are just, the appointed Hearing Officer or the Director may relieve a Party from the effects of any failure to appear and order that a review proceeding be reinstated or reheard. A Party seeking relief from non-appearance shall file a written motion at the earliest opportunity and no later than 10 days following a proceeding of which the Party had actual notice. Such application shall be supported by an affidavit or declaration based on the personal knowledge of the declarant, and copies of the application and any supporting materials shall be served on all other Parties to the proceeding. No application shall be granted unless and until the other Parties have been afforded a reasonable opportunity to make a showing in opposition. An Order reinstating a proceeding or granting a rehearing under this Section may be conditioned upon providing reimbursement to the Department and the other Parties for the costs associated with the prior non-appearance.
(c) Notwithstanding any application or showing made under subpart (b) of this Rule, neither the Hearing Officer nor the Director may reinstate any Request for Review where the underlying Assessment or Withholding of Contract Payments has become final and entered as a court judgment.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 473, Code of Civil Procedure; and Section 1742(b), Labor Code.

17247. Contempt and Monetary Sanctions.
(a) If any Person in proceedings before an appointed Hearing Officer disobeys or resists any lawful order or refuses, without substantial justification, to respond to a subpoena, subpoena duces tecum, or refuses to take the oath or affirmation as a witness or thereafter refuses to be examined or is guilty of misconduct

during a hearing or so near the place thereof as to obstruct the proceedings, or violates the prohibition against ex parte communications under Rule 07 [Section 17207] above, the Hearing Officer may do any one or more of the following: (1) certify the facts to the Superior Court in and for the county where the proceedings are held for contempt proceedings pursuant to Government Code Section 11455.20; (2) exclude the Person from the hearing room; (3) prohibit the Person from testifying or introducing certain matters in evidence; and/or (4) establish certain facts, claims, or defenses if the Person in contempt is a Party.

(b) Either the appointed Hearing Officer by separate order or the Director in his or her decision may order a Party, the Party's authorized Representative, or both, to pay reasonable expenses, including attorney's fees, incurred by another Party as a result of bad faith actions or tactics that are frivolous or solely intended to cause unnecessary delay as defined in Section 128.5 of the Code of Civil Procedure. Such order or the denial of such an order shall be subject to judicial review in the same manner as a decision of the Director on the merits. The order shall be enforceable in the same manner as a money judgment or by the contempt sanction.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 128.5, Code of Civil Procedure; Sections 11455.10 through 11455.30, Government Code; and Section 1742(b), Labor Code.

17248. Interpreters.
(a) Proceedings shall be conducted in the English language. The notice advising a Party of the hearing date shall also include notice of the Party's right to request an interpreter for a Party or witness who cannot speak or understand English, or who can do so only with difficulty, or who is deaf or hearing impaired as defined under Evidence Code Section 754.

(b) A request for an interpreter for a Party or witness shall be submitted as soon as possible after the requesting Party becomes aware of the need for an interpreter and prior to the commencement of the hearing. The request should include information that (1) will enable the Hearing Officer and Department to obtain an interpreter with appropriate skills; and (2) will assist the Hearing Officer in determining whether the Department or the requesting Party should pay for the cost of the interpreter.

(c) Upon receipt of a timely request, the Hearing Officer shall direct the Department to provide an interpreter and shall also decide whether the Department or the requesting Party shall pay the cost of the interpreter, based upon an equitable consideration of all the circumstances, including the requesting Party's ability to pay.

(d) A person is qualified to serve as an interpreter if he or she (1) is on the current State Personnel Board List of Certified Administrative Hearing Interpreters maintained pursuant to Government Code Section 11435.25; and (2) has also been examined and determined by the Department to be sufficiently knowledgeable of the terminology and procedures generally used in these proceedings.

(e) In the event that a qualified interpreter under subpart (d) is unavailable or if there are no certified interpreters for the language in which assistance is needed, the Hearing Officer may qualify and appoint another interpreter to serve as needed in a single hearing or case.

(f) Before appointment of an interpreter, the Hearing Officer or a Party may conduct a brief supplemental examination of the prospective interpreter to see if that person has the qualifications necessary to serve as an interpreter, including whether he or she understands terms and procedures generally used in these proceedings, can explain those terms and procedures in English and the other language being used, and can interpret those terms and procedures into the other language. An interpreter shall not have had any prior substantive involvement in the matter under review, and shall disclose to the Hearing Officer and the Parties any actual conflict of interest or appearance of conflict. Any condition that interferes with the objectivity of an interpreter constitutes a conflict of interest. A conflict may exist if an interpreter is an employee of, acquainted with, or related to a Party or witness to the proceeding, or if an interpreter has an interest in the outcome of the proceeding.

(g) The Hearing Officer shall disqualify an interpreter if the interpreter cannot understand and interpret the terms and procedures used in the hearing or prehearing conference, has disclosed privileged or confidential communications, or has engaged in conduct which, in the judgment of the Hearing Officer, creates an appearance of bias, prejudice, or partiality.

(h) Nothing in this section limits any further rights extended by Evidence Code Section 754 to a Party or witness who is deaf or hard of hearing.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 754,

Evidence Code; Sections 11435.05 through 11435.65, and 68560 through 68566, Government Code; and Section 1742(b), Labor Code.

17249. Hearing Record; Recording of Testimony and other Proceedings.
(a) The Hearing Officer and the Director shall maintain an official record of all proceedings conducted under these Rules. In the absence of a determination under subpart (b) below, all testimony and other proceedings at any hearing shall be recorded by audiotape. Recorded testimony or other proceedings need not be transcribed unless requested for purposes of further court review of a decision or order in the same case.
(b) Upon the application of any Party or upon his or her own motion, the Hearing Officer may authorize the use of a certified court reporter, videotape, or other appropriate means to record the testimony and other proceedings. Any application by a Party under this subpart shall be made at a prehearing conference or by prehearing motion filed no later than 10 days prior to the scheduled date of hearing. Upon the granting of any such application, it shall be the responsibility of the Party or Parties who made the application to procure and pay for the services of a qualified person and any additional equipment needed to record the testimony and proceedings by the requested means. Ordinarily the granting of such application will be conditioned on the applicant's paying for certified copies of the transcript for the official record and for the other Parties. The failure of a requesting Party to comply with this requirement shall not be cause for delaying the hearing on the merits, but instead shall result in the proceedings being tape recorded in accordance with subpart (a).
(c) The Parties may, at their own expense, arrange for the recording of testimony and other proceedings through a different means other than the one authorized by the Hearing Officer, *provided that* it does not in any way interfere with the Hearing Officer's control and conduct of the proceedings, and *further provided that*, it shall not be regarded as an official record for any purpose absent a stipulation by all of the Parties or order of the Hearing Officer.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

17250. Burdens of Proof on Wages and Penalties.
(a) The Enforcing Agency has the burden of coming forward with evidence that the Affected Contractor or Subcontractor (1) was served with an Assessment or Notice of Withholding of Contract Payments in accordance with Rule 20 [Section 17220]; (2) was provided a reasonable opportunity to review evidence to be utilized at the hearing in accordance with Rule 24 [Section 17224]; and (3) that such evidence provides prima facie support for the Assessment or Withholding of Contract Payments.
(b) If the Enforcing Agency meets its initial burden under (a), the Affected Contractor or Subcontractor has the burden of proving that the basis for the Civil Wage and Penalty Assessment or for the Withholding of Contract Payments is incorrect.
(c) With respect to any civil penalty established under Labor Code Section 1775, the Affected Contractor or Subcontractor shall have the burden of proving that the Labor Commissioner abused his or her discretion in determining that a penalty was due or in determining the amount of the penalty.
(d) All burdens of proof and burdens of producing evidence shall be construed in a manner consistent with relevant Sections of the Evidence Code, and the quantum of proof required to establish the existence or non-existence of any fact shall be by a preponderance of the evidence, unless a higher standard is prescribed by law.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 500, 502, and 550, Evidence Code; and Sections 1742(b) and 1775, Labor Code. .

17251. Liquidated Damages.
(a) With respect to any liquidated damages for which an Affected Contractor, Subcontractor, or Surety on a bond becomes liable under Labor Code Section 1742.1, the Enforcing Agency shall have a further burden of coming forward with evidence to show the amount of wages that remained unpaid as of 60 days following the service of the Assessment or Notice of Withholding of Contract Payments. The Affected Contractor or Subcontractor shall have the burden of demonstrating that he or she had substantial grounds for believing the Assessment or Notice to be in error.
(b) To demonstrate "substantial grounds for believing the Assessment or Notice to be in error," the Affected Contractor or Subcontractor must establish (1) that it had a reasonable subjective belief that the

Assessment or Notice was in error; (2) that there is an objective basis in law and fact for the claimed error; and (3) that the claimed error is one that would have substantially reduced or eliminated any duty to pay additional wages under the Assessment or Notice.
NOTE: Authority cited: 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Sections 1742(b), 1742.1, and 1773.5, Labor Code.

17252. Oral Argument and Briefs.
(a) Parties may submit prehearing briefs of reasonable length under such conditions as the appointed Hearing Officer shall prescribe. Parties shall also be permitted to present a closing oral argument of reasonable length at or following the conclusion of the hearing.
(b) There shall be no automatic right to file a post-hearing brief. However, the Hearing Officer may permit the Parties to submit written post-hearing briefs, under such terms as are just. The Hearing Officer shall have discretion to determine, among other things, the length and format of such briefs and whether they will be filed simultaneously or on a staggered (opening, response, and reply) basis.
(c) In addition to or as an alternative to post-hearing briefs, the Hearing Officer may also prepare proposed findings or a tentative decision or may designate a Party to prepare proposed findings and thereafter give the Parties a reasonable opportunity to present arguments in support of or opposition to any proposed findings or tentative decision prior to the issuance of a decision by the Director under Rule 60 [Section 17260] below.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

17253. Conclusion of Hearing; Time for Decision.
(a) The hearing shall be deemed concluded and the matter submitted either upon the completion of all testimony and post-hearing arguments or upon the expiration of the last day for filing any post-hearing brief or other authorized submission, whichever is later. Thereafter, the Director shall have 45 days within which to issue a written decision affirming, modifying, or dismissing the Assessment or the Withholding of Contract Wages.
(b) For good cause, the Hearing Officer may vacate the submission and reopen the hearing for the purpose of receiving additional evidence or argument, in which case the time for the Director to issue a written decision shall run from the date of resubmission.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

ARTICLE 6. DECISION OF THE DIRECTOR

17260. Decision.
(a) The appointed Hearing Officer shall prepare a recommended decision for the Director's review and approval. The decision shall consist of a notice of findings, findings, and an order, and shall be in writing and include a statement of the factual and legal basis for the decision, consistent with the requirements of Labor Code Section 1742 and Government Code Section 11425.50.
(b) A recommended decision shall have no status or effect unless and until approved by the Director and issued in accordance with subpart (c) below.
(c) A copy of the decision shall be served by first class mail on all Parties in accordance with the requirements of Code of Civil Procedure Section 1013. If a Party has appeared through an authorized Representative, service shall be made on that Party at the last known address on file with the Enforcing Agency in addition to service on the authorized Representative.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1013, Code of Civil Procedure; Section 11425.50, Government Code; and Section 1742(b), Labor Code. .

17261. Reconsideration.
(a) Upon the application of any Party or upon his or her own motion, the Director may reconsider or modify a decision issued under Rule 60 [Section 17260] above for the purpose of correcting any error therein.
(b) The decision must be reconsidered or modified within 15 days after its date of issuance pursuant to Rule 60(c) [Section 17260(c)]. Thereafter, the decision may not be reconsidered or modified, except that a clerical error may be corrected at any time.

(c) The modified or reconsidered decision shall be served on the Parties in the same manner as a decision issued under Rule 60 [Section 17260].

(d) A Party is not required to apply for reconsideration before seeking judicial review of a decision of the Director. An application for reconsideration made by any Party shall *not* extend the time for seeking judicial review pursuant to Labor Code Section 1742(c) unless the Director issues a modified or reconsidered decision within the 15-day time limit prescribed in subpart (b) of this Section.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742, Labor Code.

17262. Final Decision; Time for Seeking Review.

(a) The decision of the Director issued pursuant to Section Rule 60 [Section 17260] above shall be the final decision of the Director from which any Party may seek judicial review pursuant to the provisions of Labor Code Section 1742(c) and Code of Civil Procedure Section 1094.5; *provided however*, that if the Director has issued a modified decision pursuant to and within the 15-day limit of the Director's reconsideration authority under Section Rule 61 [Section 17261] above and Labor Code Section 1742(b), the right of review and time for seeking such review shall extend from the date of service of the modified decision rather than from the original decision.

(b) The modification of a decision to correct a clerical error after expiration of the 15-day time limit on the Director's reconsideration authority shall *not* extend the time for seeking judicial review.

(c) The time for seeking judicial review shall be determined from the date of service of the decision of the Director under Code of Civil Procedure Section 1013, including any applicable extension of time provided in that statute.

(d) Any petition seeking judicial review of a decision under these Rules may be served (1) upon the Director by serving the Office of the Director – Legal Unit where the appointed Hearing Officer who conducted the hearing on the merits regularly maintains his or her office; and (2) upon the Labor Commissioner (in cases in which the Labor Commissioner was the Enforcing Agency) by the serving the regular office of the attorney who represented the Labor Commission at the hearing on the merits. The intent of this subpart is to authorize and designate a preferred method for giving the Director and the Labor Commissioner formal notice of a court action seeking review of a decision of the Director under these Rules; it does not preclude the use any other service method authorized by law.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5. Reference: Sections 1013 and 1094.5, Code of Civil Procedure; and Section 1742, Labor Code.

17263. Preparation of Record for Review.

(a) Upon notice that a Party intends to seek judicial review of a decision of the Director and the payment of any required deposit, the Department, under the direction of the appointed Hearing Officer, shall immediately prepare a hearing record consisting of all exhibits and other papers and a transcript of all testimony which the Party has designated for the inclusion in the record on review.

(b) The Party who has requested the record or any part thereof shall bear the cost of its preparation, including but not necessarily limited to any court reporter transcription fees and reasonable charges for the copying, binding, certification, and mailing of documents. Absent good cause, no record will be released to a Party or filed with a court until adequate funds to cover the cost of preparing the record have been paid by the requesting Party to the Department or to any third party designated to prepare the record. However, upon notice that a Party seeking judicial review has been granted *in forma pauperis* status under California Rule of Court 985, the Department shall bear the cost of preparing and filing the record where necessary for a proper review of the proceedings.

(c) The pendency of any request for the Department to prepare a hearing record shall *not* extend the time limits for filing a petition for review under Labor Code Section 1742(c) and Code of Civil Procedure Section 1094.5.

NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1094.5, Code of Civil Procedure; California Rule of Court 985; Section 68511.3, Government Code; and Section 1742(c), Labor Code.

17264. Request for Participation by Director in Judicial Review Proceeding.

Although the Director should be named as the Respondent in any action seeking judicial review of a final decision, the Director ordinarily will rely upon the Parties to the hearing (as Petitioner and Real Party in

Interest) to litigate the correctness of the final decision in the writ proceeding and on any appeal. The Director may participate actively in proceedings raising issues that specifically concern the Director's authority under the statutes and regulations governing the payment of prevailing wages on public work contracts, or the validity of related laws, regulations, or the Director's decisions as to public works coverage or generally applicable prevailing wage rates. Any Party may request the Director to file a response in the action by including a separate written request with any court pleading being served on the Director in accordance with Rule 62(d) [Section 17262(d)]. Any such separate written request should specify briefly what issues are raised by the petition that extend beyond the facts of the case and warrant the Director's participation.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1094.5, Code of Civil Procedure and Section 1742(c), Labor Code.

ARTICLE 7. TRANSITIONAL RULE.

17270. Applicability of these Rules to Notices Issued Between April 1, 2001 and June 30, 2001.
(a) These Rules shall apply to any notice issued by the Labor Commissioner or an Awarding Body with respect to the withholding or forfeiture of contract payments for unpaid wages or penalties under the prevailing wage laws in effect prior to July 1, 2001; *provided that*, the party seeking review has not commenced a civil action with respect to such notice under the provisions of Labor Code Sections 1731-1733 [repealed effective July 1, 2001].
(b) An Affected Contractor or Subcontractor may appeal any such notice served between April 1, 2001 and June 30, 2001 by filing a Request for Review with the Enforcing Agency that issued the notice, in the manner and form specified in Rule 22 [Section 17222] above. Any such Request for Review shall be in writing and shall include a statement indicating the date upon which the contractor or subcontractor was served with the notice of withholding or forfeiture.
(c) This Rule shall *not* extend the time available to appeal the notice under the former law. A Request for Review of a notice issued prior to July 1, 2001 must be filed with the Enforcing Agency within ninety (90) days after service of the notice.
(d) A contractor or subcontractor who has sought review of a notice issued prior to July 1, 2001 by filing a court action under the repealed provisions of Labor Code Sections 1731-1733 on or after July 1, 2001, shall, if said action would have been timely under those sections, be afforded the opportunity to dismiss the action without prejudice, after entering into a stipulation that the proceeding be transferred to the Director for hearing in accordance with these Rules. The stipulation shall also provide that the time for commencing a hearing under Rule 41 [Section 17241] shall not begin to run until the case has been formally transferred to and received by the Office of the Director.
 (e) Any hearing request made pursuant to Labor Code Section 1771.7 [repealed effective July 1, 2001] that has not been heard and decided by a Hearing Officer prior to July 1, 2001 shall be handled in accordance with these Rules.
NOTE: Authority cited: Sections 55, 59, 1742(b), and 1773.5, Labor Code. Reference: Section 1742(b), Labor Code.

Section III

CITY OF SANTA CLARITA

LABOR COMPLIANCE PROGRAM OFFICE

Implementation Plan

Section III

IMPLEMENTATION PLAN

- Labor Compliance Officer receives construction contract awards/work schedules from the Parks, Recreation and Community Services, Field Services and Engineering Departments.

- Labor Compliance Officer participates in job-start meeting.

- Labor Compliance Officer provides site monitors with work schedules.

- Site monitors, both City employees and others, conduct interviews and return interview sheets to Labor Compliance Officer.

- Labor Compliance Officer enters information from interviews into database.

- Labor Compliance Officer verifies information from certified payroll records.

- Labor Compliance Officer notifies contractor in writing of any discrepancies with certified payroll records.

- If clarification/correction is not received from the contractor within two weeks, Labor Compliance Officer will commence an investigation.

- Upon completion of the investigation, a report will be sent to the Department of Industrial Relations with recommendations for penalties to be applied to the contractor.

- Labor Compliance Officer prepares and submits public works violation reports to Labor Commissioner as required.

- Labor Compliance Officer receives Monthly Employment Utilization Report from the contractor and its subcontractors; Labor Compliance Officer maintains database of this information for year-end report to the City Council.

- Labor Compliance Officer communicates on a regular basis with contractors, workers, building and trade organizations, and other community entities and in-service management to City personnel.

- Labor Compliance Officer prepares and submits annual program reports to the Santa Clarita City Council, and the Director of the Department of Industrial Relations.

- Labor Compliance Officer manages all facets and is the primary contact for the City's Labor Compliance Program.

- Labor Compliance Officer provides non-City site monitors with site visitation training and assigns projects when applicable.

Section IV

CITY OF SANTA CLARITA

LABOR COMPLIANCE PROGRAM OFFICE

Operational Manual

SECTION IV

OPERATION MANUAL

<u>Site Visitations</u>

1. Safety is the paramount factor for any site visit to any City of Santa Clarita construction projects. Do not enter any area that appears unsafe. Site monitor is expected to exercise reasonable caution at all times.

2. All authorized personnel visiting any City of Santa Clarita construction site are required to be properly identified as a City representative by wearing visible picture ID's (badge), or identifying themselves as such. Additionally, all authorized personnel are required to wear hard hats and safety shoes.

3. Authorized personnel shall visit all sites on a non-interference basis and take a minimum amount of the workers' time for interview purposes.

4. Upon arrival at a site, the site monitor will check in at the site superintendent's (contractor's) trailer prior to any interviewing. In the event there is not a construction trailer, you will check in at the site's administrative office. Identify yourself and state the purpose of the visit. Sign in if required to do so. If the site superintendent cites some reason that denies access to the site, promptly and politely remove yourself. Make a note of this occurrence and include in your report to the LCO.

5. Check to see that the following are displayed in the contractor's trailer:
   - EOE Posters
   - Prevailing wage sheets posted
   - Sign-in Log
   - Listing of subcontractors on site

   If any of these items are not readily visible, remind the contractor that these postings are part of the contractual requirements. On subsequent visits, make sure that these items are posted, or the contractor will be found to be in noncompliance.

6. There will be times when the site superintendent is somewhere on the site and/or there is no contractor present in the trailer. You should check in at the City's Inspector of Record (IOR) trailer. The IOR will also be able to tell you which contractors are on the site at that time. If all trailers are empty or locked, try to locate the site superintendent or IOR on the site prior to commencing interviewing.

<u>Interviewing</u>

1. Once you have checked in with the site superintendent and obtain access to the site, try to locate tradespersons working in clusters. For instance, several painters, electricians, roofers, etc. working in one area. Approach the workers individually in a non-threatening, professional manner. Identify yourself, indicate that you are City's representative, and that you need only a few seconds of their time to ask some very generic questions to ensure that they are receiving the proper rate of pay for the type of work they are doing. Again, do not endanger yours or any tradesperson's safety in conducting these interviews. Do not insist that someone on a scaffold 40 feet in the air come down for an interview. Do not ask anyone to form a line until you can get to them; allow them to continue working until you can get to them individually.

   These interviews are random; two or three tradespersons for each subcontractor are more than sufficient for one visit. Any persons missed are usually picked up on the next visit.

If only one tradesperson is at the site, then interview that person if possible. If you are told that the rest of the crew will be there in an hour, do not wait, unless your total site interviewing will take that length of time. Thirty minutes of interviewing per site is typically sufficient, depending upon the site size and/or number of subcontractors present. Contractor tradesperson should also be interviewed.

2. Using the Labor Compliance Site Visitation Interview form, ask each person the following: name, social security number, employer, title (trade), rate of pay, and task being performed at the time of interview.

3. Should someone decline to speak with you, respect those wishes. If someone asks if this is union-related, tell them no. The City of Santa Clarita works with both open and closed shop trades.

4. If you try to interview someone who does not speak English and you cannot communicate in the appropriate language, try to locate a coworker who can interpret for you. If you find an entire crew unable to speak English and no interpreter, include this in your report to the LCO.

5. If someone refuses to disclose his social security number to you, respect those wishes. However, assure that person that all information given is kept strictly confidential.

6. If someone does not know their rate of pay (most tradespersons don't know), ask for a guesstimate. If the response is, "whatever prevailing wage is", so indicate on the form.

7. If someone indicates that he is an apprentice, make sure that you ask him what period. These can be anywhere from 1st to 10th. If he's not sure, ask him how many years he's been apprenticed in the specific trade and/or to guesstimate and so indicate on the interview form.

8. ALWAYS thank them for their time.

9. Keep in mind that you are there to collect information only, do not tell them how to do their jobs. Should you witness what you consider a potentially unsafe or unwarranted condition, you are to contact the site inspector or job superintendent of your findings immediately and make a note on your site visitation log of what you observed. Upon your return to the office, report your findings to the LCO.

Reporting

1. All original interview forms shall be submitted to the LCO no later than the end of each workweek.

Section V

CITY OF SANTA CLARITA

<u>**LABOR COMPLIANCE PROGRAM OFFICE**</u>

Procedures

SECTION V

PROCEDURES

Certified Payroll Verification Procedures

1. The Parks, Recreation and Community Services, Field Services and Engineering Departments will provide the Labor Compliance Officer with construction work schedules.

2. Upon receipt of certified payroll reports from general/subcontractors once a week, compare information from the Labor Compliance visitation log to the contractors certified payroll and the prevailing wage schedule.

3. Compare name and social security number with trade classification listed.

4. Ensure prevailing wage listed is correct for the classification listed using the prevailing wage schedule

5. Check for employment of apprentices, correct rate of pay, and proper ratio to journey workers.

6. Contact the contractor in writing and send by certified mail any inaccuracies in the verification of its certified payroll.

7. If clarification/correction is not received within two weeks form the contractor, the Labor Compliance Officer will commence an investigation.

8. Upon completion of the investigation, a report will be sent to the Department of Industrial Relations with recommendations for penalties to be applied to the contractor.

9. Retain all original interview forms and annotate the database as applicable.

Site Monitor Procedures

1. Receive construction site work schedule from Labor Compliance Officer.

2. Check in with site administrative office/site superintendent

3. Utilizing the Labor Compliance Site Visitation Interview form, conduct interviews with workers.

4. Note on your form any infractions you may observe while conducting the interview.

5. Return interview form to the Labor Compliance Officer.

6. Report any infractions you observed to the Labor Compliance Officer.

Section VI

CITY OF SANTA CLARITA

LABOR COMPLIANCE PROGRAM

Forms

CITY OF SANTA CLARITA

LABOR COMPLIANCE PROGRAM

PREVAILING WAGE HANDOUT

THE PUBLIC WORKS REQUIREMENTS ARE:
(A) the appropriate number of apprentices are on the job site, as set forth in Labor Code Section 1777.5.
(B) worker's compensation coverage, as set forth in Labor Code Sections 1860 and 1861.
(C) keep accurate records of the work performed on the public works project, as set forth in Labor Code Section 1812.
(D) inspection of payroll records pursuant to Labor Code Section 1776, and as set forth in 8 CCR Section 16400(e).
(E) other requirements imposed by law.
(5) Withhold monies. See Labor Code Section 1727.
(6) Ensure that public works projects are not split or separated into smaller work orders or projects for the purpose of evading the applicable provisions of Labor Code Section 1771.
(7) Deny the right to bid on public work contracts to contractors or subcontractors who have violated public work laws, as set forth in Labor Code Section 1777.7.
(8) Not permit workers on public works to work more than eight hours a day or 40 hours in any one calendar week, unless compensated at not less than time and a half as set forth in Labor Code Section 1815.
Exception: If the prevailing wage determination requires a higher rate of pay for overtime work than is required under Labor Code Section 1815, then that higher overtime rate must be paid [,as specified in 16200(a)(3)(F).]
(9) Not take or receive any portion of the workers' wages or accept a fee in connection with a public works project, as set forth in Labor Code Sections 1778 and 1779.
(10) Comply with those requirements as specified in Labor Code Sections 1776(g), 1777.5, 1810, 1813, and 1860.

THE CONTRACTOR AND SUBCONTRACTOR SHALL:
(1) Pay not less than the prevailing wage to all workers, as defined in CCR's section 16000(a), and as set forth in Labor Code Sections 1771 and 1774;
(2) Comply with the provisions of Labor Code Sections 1773.5, 1775, and 1777.5 regarding public works job sites;
(3) Provide workers' compensation coverage as set forth in Labor Code Section 1861;
(4) Comply with Labor Code Sections 1778 and 1779 regarding receiving a portion of wages or acceptance of a fee;
(5) Maintain and make available for inspection payroll records, as set forth in Labor Code Section 1776;
(6) Pay workers overtime pay, as set forth in Labor Code Section 1815 or as provided in the collective bargaining agreement adopted by the Director as set forth in 8 CCR Section 16200(a)(3); and
(7) Comply with Section 16101 of these regulations regarding discrimination.
(8) Be subject to provisions of Labor Code Section 1777.7 which specifies the penalties imposed on a contractor who willfully fails to comply with provisions of Section 1777.5.
(9) Comply with those requirements as specified in Labor Code Sections 1810 and 1813.
(10) Comply with other requirements imposed by law.

APPRENTICE TRAINING
SEE LABOR CODE SECTION 1777.5 (e)
(e) Prior to commencing work on a contract for public works, every contractor shall submit contract award information to an applicable apprenticeship program **that can supply apprentices to the site of the public work**. The information submitted shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also
be submitted to the awarding body if requested by the awarding body.
Within 60 days after concluding work on the contract, each contractor and subcontractor shall submit to the awarding body, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the contract. The information under this subdivision shall be public. The apprenticeship programs shall retain this information for 12

months.

APPRENTICE TRAINING CONTIBUTION REQUIREMENTS
SEE CALIFORNIA CODE OF REGULATIONS: TITLE 8, ARTICLE 4,
16200(G*) Wage rates, training contributions and apprenticeship contributions.*
Apprenticeship rates shall be determined by the Director of Industrial Relations using apprentice wage standards set forth in the collective bargaining agreement and/or approved by the California Apprenticeship Council. A contractor or subcontractor on a public works contract must pay training fund contributions or apprenticeship contributions in one of the following manners:
1. into the appropriate craft apprenticeship program in the area of the site of the public work; or
2. (if the trust fund is unable to accept such contributions) an equivalent amount shall be paid to the California Apprenticeship Council (CAC) administered by DAS.
3. If neither of the above will accept the funds, cash pay shall be as provided for in California Code of Regulations Section 16200(a)(3)(I).
SEE CALIFORNIA CODE OF REGULATIONS: TITLE 8, ARTICLE 10, SECTION 230.2
§230.2. **Payment of Apprenticeship Training Contributions to the Council.**
(a) Contractors who are neither required nor wish to make apprenticeship training contributions to the applicable local training trust fund shall make their training contributions to the Council. Contractors may refer to the Director of the Department of Industrial Relations applicable prevailing wage determination for the amount owed for each hour of work performed by journeymen and apprentices in each apprenticeable occupation.
(b) Training contributions to the Council are due and payable on the 15th day of each month for work performed during the preceding month.
(c) Training contributions to the Council shall be paid by check and shall be accompanied by a completed CAC-2 Form, Training Fund Contributions, (Rev. 10/91), or the following information:
(1) The name, address, and telephone number of the contractor making the contribution.
(2) The contractor's license number.
(3) The name and address of the public agency that awarded the contract.
(4) The job site location, including the county where the work was performed.
(5) The contract or project number.
(6) The time period covered by the enclosed contributions.
(7) The contribution rate and total hours worked by apprenticeable occupation.

CERTIFYING PERSON
SEE CALIFORNIA CODE OF REGULATIONS: TITLE 8,GROUP 3, ARTICLE 1,16000 DEFINITIONS.
A person with the authority to affirm under penalty of perjury that the records provided, depict truly, fully and correctly the type of work performed, the hours worked, days worked and amounts paid.

CHANGES TO PREVAILING RATE AFTER AWARD
SEE LABOR CODE SECTION: 1773.6
No effect once the contract notice to bidders is published.
1773.6. If during any quarterly period the Director of Industrial Relations shall determine that there has been a change in any prevailing rate of per diem wages in any locality he shall make such change available to the awarding body and his determination shall be final. Such determination by the Director of Industrial Relations shall not be effective as to any contract for which the notice to bidders has been published. *Exceptions; classifications marked as a double asterisks.*

CREDITS, FOR FRINGE BENEFIT PAYMENTS
SEE CALIFORNIA CODE OF REGULATIONS: TITLE 8, GROUP 3, ARTICLE 4,
16200(i) Credit Available For Actual Payment of Fringe Benefit Costs up to the Prevailing Amount.
The contractor obligated to pay the full prevailing rate of per diem wages may take credit for amounts up to the total of all fringe benefit amounts listed as prevailing in the appropriate wage determination. This credit may be taken only as to amounts, which are actual payments under Employer Payments Section 16000(1)-(3). In the event the total of Employer Payments by a contractor for the fringe

benefits listed as prevailing is less than the aggregate amount set out as prevailing in the wage determination, the contractor must pay the difference directly to the employee. No amount of credit for payments over the aggregate amount of employer payments shall be taken nor shall any credit decrease the amount of direct payment of hourly wages of those amounts found to be prevailing for straight time or overtime wages.

And memo from the division of industrial relations dated 11-15-90.

THE RULE:

The contractor can pay amounts for individual benefits different than the state shows in the wage reports so long as it is not more than the total amount permitted for all benefits. Any contractor paid amount less than the total benefit requirements listed in the state wage reports must be paid to the employee.

EMPLOYEE'S SUBJECT TO PREVAILING WAGES

SEE LABOR CODE SECTION 1771, 1772 & 1776 AND SEE

City general conditions all workers on the project shall be paid the wage of the trade they are most closely related to. This includes: any one on site, and off site even at remote manufacturing facilities.

1771. Except for public works projects of one thousand dollars ($1,000) or less, not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the public work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed as provided in this chapter, shall be paid to **all** workers employed on public works.

1772. Workers employed by contractors or subcontractors in the execution of any contract for public work are deemed to be employed upon public work.

1776. (a) Each contractor and subcontractor shall keep an accurate payroll record, showing the name, address, social security number, work classification, and 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.

EMPLOYER PAYMENTS

SEE CALIFORNIA CODE OF REGULATIONS: TITLE 8, ARTICLE 1, SECTION 16000 DEFINITIONS

(1) The rate of contribution irrevocably made by a contractor or subcontractor to a trustee or to a third person pursuant to a fund, plan, or program for the benefit of employees, their families and dependents, or retirees;

(2) The rate of costs to the contractor or subcontractor which may be reasonably anticipated in providing benefits to employees, their families and dependents or to retirees pursuant to an enforceable commitment or agreement to carry out a financially responsible plan or program which was communicated in writing to the workers affected; and

(3) The rate of contribution irrevocably made by the contractor or subcontractor for apprenticeship or other training programs authorized by Section 3071 and/or 3093 of the Labor Code.

FRINGE BENEFIT PAYMENT REQUIREMENTS

SEE CALIFORNIA CODE OF REGULATIONS: TITLE 8, GROUP 3, ARTICLE 1, 16000 DEFINITIONS

All fringe benefits must be irrevocably paid to an authorized fund or to the employee.

No unpaid amounts are allowed.

FRINGE BENEFITS INCLUDE

CALIFORNIA CODE OF REGULATIONS: TITLE 8, ARTICLE 1, SECTION 16000. DEFINITIONS

3) The prevailing rate of employer payments for any or all programs or benefits for employees, their families and dependents, and retirees which are of the types enumerated below:

(A) medical and hospital care, prescription drugs, dental care, vision care, diagnostic services, and other health and welfare benefits;

(B) retirement plan benefits;

(C) vacations and holidays with pay, or cash payments in lieu thereof;

(D) compensation for injuries or illnesses resulting from occupational activity;

(E) life, accidental death and dismemberment, and disability or sickness and accident insurance;

(F) supplemental unemployment benefits;

(G) thrift, security savings, supplemental trust, and beneficial trust funds otherwise designated, provided all of the money except that used for reasonable administrative expenses is returned to the employees;

(H) occupational health and safety research, safety training, monitoring job hazards, and the like, as specified in the applicable collective bargaining agreement;

(I) See definition of "Employer Payments," (3).

(J) other bonafide benefits for employees, their families and dependents, or retirees as the Director may determine; and

(4) travel time and subsistence pay as provided for in Labor Code Section 1773.8.

FRINGE BENEFITS DO NOT INCLUDE
CALIFORNIA CODE OF REGULATIONS: TITLE 8, ARTICLE 1, SECTION 16000. DEFINITIONS
(b) The term "general prevailing rate of per diem wages"
does not include any employer payments for:
(1) Job related expenses other than travel time and subsistence pay;

(2) Contract administration, operation of hiring halls, grievance processing, or similar purposes except for those amounts specifically earmarked and actually used for administration of those types of employee or retiree benefit plans enumerated above;

(3) Union, organizational, professional or other dues except as they may be included in and withheld from the basic taxable hourly wage rate;

(4) Industry or trade promotion;

(5) Political contributions or activities;

(6) Any benefit for employees, their families and dependents, or retirees including any benefit enumerated above where the contractor or subcontractor is required by Federal, State, or local law to provide such benefit; or

(7) Such other payments as the Director may determine to exclude. Interested Party. When used with reference to a particular prevailing wage determination made by the Director, includes:

PAYROLL RECORDS INCLUDE
CALIFORNIA CODE OF REGULATIONS: TITLE 8, ARTICLE 1, SECTION 16000. DEFINITIONS
All time cards, cancelled checks, cash receipts, trust fund forms, books, documents, schedules, forms, reports, receipts or other evidences which reflect job assignments, work schedules by days and hours, and the
disbursement by way of cash, check, or in whatever form or manner, of funds to a person(s) by job classification and/or skill pursuant to a public works project.

PERSONS REQUIRED TO RECEIVE PREVAILING WAGES
SEE LABOR CODE SECTIONS:
1771**…………………**, shall be paid to all workers employed on public works.
1774. The contractor to whom the contract is awarded, and any subcontractor under him, shall pay not less than the specified prevailing rates of wages to all workmen employed in the execution of the contract.
City General Conditions require all workers not in a prevailing wage classification to be paid the wage most closely related to the craft or trade they are involved with.

WITHHOLDING PAYMENTS, JUSTIFICATION
SEE LABOR CODE SECTION: 1727 & 1771.5(b),(5)
SEE CALIFORNIA CODE OF REGULATIONS: TITLE 8, ARTICLE 5, SECTION
16435(a) "Withhold" means to cease payments by the awarding body, or others who pay on its behalf, or agents, to the general contractor. Where the violation is by a subcontractor, the general contractor shall be notified of the nature of the violation and reference made to its rights under Labor Code Section 1729.
(b) "Contracts." Except as otherwise provided by agreement, only contracts under a single master

contract, or contracts entered into as stages of a single project, may be the subject of withholding.
(c) "Delinquent payroll records" means those not submitted on the date set in the contract.
(d) "Inadequate payroll records" are any one of the following:
(1) A record lacking the information required by Labor Code Section 1776;
(2) A record which contains the required information but not certified, or certified by someone not an agent of the contractor or subcontractor;
(3) A record remaining uncorrected for one payroll period, after the awarding body has given the contractor notice of inaccuracies detected by audit or record review. Provided, however, that prompt correction will stop any duty to withhold if such inaccuracies do not amount to 1 percent of the entire Certified Weekly Payroll in dollar value and do not affect more than half the persons listed as workers employed on that Certified Weekly Payroll, as defined in Labor Code Section 1776 and Title 8 CCR Section 16401.

DIRECTOR OF INDUSTRIAL RELATIONS PRECEDENTIAL DECISIONS WHICH REQUIRE PREVAILING WAGES:

Decision 92-036: stands for the payment of out of state workers if they are working on California "Public Works"

Decision 93-019: stands for the payment of truck drivers removing, delivering or relocating material on a "Public Works"

Decision 94-017: stands for the payment of waste processors off site if the waste is exclusively from a "Public Works"

COURT DECISIONS:

Standard Traffic Services v. Department of Transportation (case 132667) Shasta: partners are due prevailing wages
If working on a "Public Works"

CALIFORNIA CODE OF REGULATIONS

APPENDIX A: Suggested checklist of Labor law requirements to review at prejob conference. Section 16430 (a) (2) The federal and state labor law requirements applicable to the contract are composed of but not limited to the following items.

Project _____

Contractor's Signature _____ **Date** _____

	Initials of Awarding Body's Representative	Initials of Contractors Representative
(1) The contractor's duty to pay prevailing wages under Labor Code Section 1770 et seq., should the project exceed the exemption amounts;		
(2) The contractor's duty to employ registered apprentices on the public works project under Labor Code Section 1777.5;		
(3) The penalties for failure to pay prevailing wages (for non-exempt project and employ apprentices including forfeitures and debarment under Labor Code Sections 1775 and 1777.7;		
(4) The requirement to keep and submit copies upon request of certified payroll records under Labor Code Section 1776:, and penalties for failure to do so under Labor Code Section 1776(g);		
(5) The prohibition against employment discrimination under Labor Code Sections 1735 and 1777.6; the Government Code, and Title VII of the Civil Rights Act of 1964;		
(6) The prohibition against accepting or extracting kickbacks from employee wages under Labor Code Section 1778;		
(7) The prohibition against accepting fees for registering any person for public work under Labor Code Section 1779; or for filing work orders on public works under Labor Code Section 1780;		
(8) The requirement to list all subcontractors under Public Contract Code Section 4100 et seq.;		
(9) The requirement to be properly licensed and to require all subcontractors to be properly licensed and the penalty for employing workers while unlicensed under Labor Code Section 1021 and under the California Contractors License Law, found at Business and Professions Code Section 7000 et seq.;		
(10) The prohibition against unfair competition under Business and Professions Code Section 17200-17208;		
(11) The requirement that the contractor be properly insured for Workers Compensation under Labor Code Section 1861;		
(12) The requirement that the contractor abide by the Occupational, Safety and Health laws and regulations that apply to the particular construction project;		
(13) The requirement to provide equal opportunity for historically underutilized groups as required in the Public Contracts Code and in the contract;		

CITY OF SANTA CLARITA

PROCUREMENT AND DISTRIBUTION DEPARTMENT
LABOR COMPLIANCE PROGRAM

CALIFORNIA CODE OF REGULATIONS CHECKLIST

After the City awards a public works contract, and prior to the commencement of work on that contract, a mandatory Job Start meeting (Pre-Job conference) shall be conducted by the LCO or Representative with the contractor and those subcontractors listed in its bid documents. The following is a listing of labor law requirements applicable to the public works contract:

1. **Payment of Prevailing Wage Rates**

   a. All workers on the project are to be paid not less than the specified general prevailing wage rate by the contractor and its subcontractors, unless subject to exemption.

   b. The contractor is responsible for complying with all applicable general prevailing wage rates for tradesworkers and any rate changes, which may occur during term of the contract.

   c. Prevailing wage rates and rate changes are to be posted at the job site for workers to view.

   d. The LCO will provide contractors with copies of prevailing wage rates upon request as well as copies of any revisions to prevailing rate wages received from the Department of Labor.

2. **Apprentices**

   a. It is the duty of the contractor and subcontractors to employ registered apprentices on public works projects.

4. **Certified Payroll Records**

   a. Contractors and subcontractors are required to keep accurate payroll records which reflect the name, address, social security number, and work classification of each employee; the straight time and overtime hours worked each day and each week; the fringe benefits; and the actual per diem wages paid to each journeyperson, apprentice, worker, or other employee hired in connection with a public works project.

   b. Employee payroll records shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor/subcontractor, or shall be furnished to any employee, or to his or her authorized representative on request.

   c. Contractors and subcontractors shall maintain their certified payrolls on a weekly basis and shall submit said payrolls to the LCO when requested to do so, but no less often than once a week. CONTRACTORS ARE RESPONSIBLE FOR SUBMITTAL OF THEIR PAYROLLS AND THOSE OF THEIR RESPECTIVE SUBCONTRACTORS AS ONE PACKAGE. In the event that there has been no work performed during a given week, the Certified Payroll Record shall be annotated with the words "No Work" for that week.

3. **Penalties**

    a. Penalties, including forfeitures and debarment, shall be imposed for contractor/subcontractor failure to pay prevailing wages (for nonexempt projects) and for failure to employ apprentices.

    b. Penalties shall also be imposed for failure to provide certified payroll records (and to provide them by the date requested), failure to provide Monthly Utilization Reports (CC-257) by the date requested, failure to pay workers for work in excess of 8 hrs/day and 40 hrs/week, and for failure to be a properly licensed contractor or subcontractor.

5. **Nondiscrimination in Employment; Equal Opportunity**

       1. All contractors and subcontractors are required to avoid discrimination in employment, and shall make good faith efforts to comply with the City's goal in hiring Disabled Veteran Business Enterprises.

6. **Kickback Prohibited**

    Contractors and subcontractors are prohibited from accepting or extracting "kickbacks" from employee wages.

7. **Acceptance of Fees Prohibited**

    Contractors and subcontractors are prohibited from exacting any type of fee for registering individuals for public work or for filling work orders on public works contracts.

8. **Listing of Subcontractors**

    Contractors are required to list all subcontractors hired to perform work on public works project when that work is equivalent to more than one-half of one percent of the total effort.

9. **Proper Licensing**

    All contractors and subcontractors are required to be properly licensed.

10. **Unfair Competition**

    Contractors and subcontractors are prohibited from engaging in unfair competition.

11. **Workers' Compensation Insurance**

    All contractors and subcontractors are required to be insured against liability for workers compensation, or to undertake self-insurance.

12. **OSHA**

    Contractors and subcontractors are required to comply with the Occupational, Safety and Health laws and regulations applicable to the particular public works project.

In accordance with federal and state laws, and with City policy and contract documents, the undersigned contractor herein certifies that it will comply with the foregoing labor law requirements; and fully understands that failure to comply with these requirements will subject it to the penalties cited herein. The contractor also herein certifies that it has been provided with a copy of the City of Santa Clarita Labor Compliance Program Package with includes:

1. Labor Law Requirements Checklist (included herein)
2. Applicable General Prevailing Wage Rate Determinations
3. Blank Certified Payroll Record forms
4. Fringe Benefit Statements
5. Blank Monthly Employment Utilization (CC-257) forms
6. State apprenticeship requirements (DAS-140)
7. Copy of the Labor Code relating to Public Works and Public Agencies (Part 7, Chapter 1, Sections 1720-1861

IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE COPIES OF THE CITY'S LABOR COMPLIANCE PROGRAM PACKAGE TO ALL LISTED SUBCONTRACTORS AND TO ANY SUBSTITUTED SUBCONTRACTORS.

_____   _____

Contractor   **Date**

_____

Name/Title of Contractor Authorized Representative

_____

Name/Title of City Labor Compliance Representative

STATE OF CALIFORNIA
DEPARTMENT OF INDUSTRIAL RELATIONS
DIVISION OF APPRENTICESHIP STANDARDS
28 CIVIC CENTER PLAZA, ROOM 525
SANTA ANA, CA 92701

TO ALL PUBLIC WORKS CONTRACTORS

Congratulations on having been awarded a public works project.

The Division of Apprenticeship Standards wishes to bring to your attention your responsibilities under California Labor Code Section 1777.5 Apprentices on Public Works. (Excerpts from California Labor Code relating to apprentices on public works. DAS-10 is attached).

Compliance with California Labor Code Section 1777.5 requires all public works contractors and subcontractors to:

- Submit contract award information within 10 days of contract award, to the applicable Joint Apprenticeship Committee, which shall include an estimate of Journeymen hours to be performed under the contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed. This information may be submitted on the attached form. DAS 140.

- Employ apprentices on the public work in a ratio to journeymen of no less than one hour of apprentices work for every five hours of labor performed by a journeyman.

- Pay the apprentice rate on public works projects only to those apprentices who are registered as defined in Labor Code Section 3077.

- Contribute to the training fund in the amount identified in the Prevailing Wage Rate publication for journeymen and apprentices. Contractors who choose not to contribute to the local training trust fund must make their contribution to the California Apprenticeship Council (CAC) at P.O. Box 420603, San Francisco, CA 94142.

- Training fund contributions to the CAC are due and payable on the 15th day of each month for work performed during the preceding month.

- Training fund contributions to the CAC shall be paid by check and shall be accompanied by a completed form CAC-2 (attached).

Failure to comply with the provisions of the Labor Code Section 1777.5 may result in the loss of the right to bid on all public works projects for a period of one to three years and the imposition of a civil penalty of $100.00 for each calendar day of noncompliance. Contractors should provide a copy of this material to each subcontractor.

If the Division of Apprenticeship Standards can be of assistance to you, please contact our office at (714) 558-4126.

EXERPTS FROM THE CALFORNIA LABOR CODE
RELATING TO APPRENTICES ON PUBLIC WORKS

Chapter 1 of Division 2
APPRENTICES ON PUBLIC WORKS

1773.3. An awarding agency whose public works contract falls within the jurisdiction of Section 1777.5 shall, within five days of the award, send a copy of the award to the Division of Apprenticeship Standards. When specifically requested by a local joint apprenticeship committee, the division shall notify the local joint apprenticeship committee regarding all such awards applicable to the joint apprenticeship committee making the request. Within five days of a finding of any discrepancy regarding the ratio of apprentices to journeymen, pursuant to the certificated fixed number of apprentices to journeymen, the awarding agency shall notify the Division of Apprenticeship Standards.

1776. (a) Each contractor and 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. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

(1) The information contained in the payroll record is true and correct.

(2) The employer has complied with the requirements of Sections 1771, 1811, and 1815 for any work performed by his or her employees on the public works project.

(b) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the contractor on the following basis:

(1) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(2) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations.

(3) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection or for copies thereof. However, a request by the public shall be made through either the body awarding the contract, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the contractor.

(c) The certified payroll records shall be on forms provided by the Division of Labor Standards Enforcement or shall contain the same information as the forms provided by the division.

(d) A contractor or subcontractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within 10 days after receipt of a written request.

(e) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in a manner so as to prevent disclosure of an individual's name, address, and social security number. The name and address of the contractor awarded the contract or the subcontractor performing the contract shall not be marked or obliterated.

(f) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.

(g) The contractor or subcontractor shall have 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated in subdivision (a). In the event that the contractor or subcontractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars ($25) 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, these penalties shall be withheld from progress payments then due. A contractor is not subject to a penalty assessment pursuant to this section due to the failure of a subcontractor to comply with this section.

(h) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section.

(i) The director shall adopt rules consistent with the California Public Records Act, (Chapter 3.5 (commencing with Section 6250), Division 7, Title 1, Government Code) and the Information Practices Act of 1977, (Title 1.8 (commencing with Section 1798), Part 4, Division 3, Civil Code) governing the release of these records, including the establishment of reasonable fees to be charged for reproducing copies of records required by this section.

(j) This section shall remain in effect only until January 1, 2003, and as of that date is repealed, unless a later enacted statute, that is enacted before January 1, 2003, deletes or extends that date.

1777.5. (a) Nothing in this chapter shall prevent the employment of properly registered apprentices upon public works.

(b) Every apprentice employed upon public works shall be paid the prevailing rate of per diem wages for apprentices in the trade to which he or she is registered and shall be employed only at the work of the craft or trade to which he or she is registered.

(c) Only apprentices, as defined in Section 3077, who are in training under apprenticeship standards that have been approved by the Chief of the Division of Apprenticeship Standards and who are parties to written apprentice agreements under Chapter 4 (commencing with Section 3070) of Division 3 are eligible to be employed at the apprentice wage rate on public works. The employment and training of each apprentice shall be in accordance with either (1) the apprenticeship standards and apprentice agreements under which he or she is training or (2) the rules and regulations of the California Apprenticeship Council.

(d) When the contractor to whom the contract is awarded by the state or any political subdivision, in performing any of the work under the contract, employs workers in any apprenticeable craft or trade, the contractor shall employ apprentices in at least the ratio set forth in this section and may apply to any apprenticeship program in the craft or trade that can provide apprentices to the site of the public work for a certificate approving the contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected. However, approval or denial of the apprenticeship program shall be subject to review by the Administrator of Apprenticeship. The apprenticeship program or programs, upon approving the contractor, shall arrange for the dispatch of apprentices to the contractor. A contractor covered by an apprenticeship program's standards shall not be required to submit any additional application in order to include additional public works contracts under that the program. "Apprenticeable craft or trade," as used in this section, means a craft or trade determined as an apprenticeable occupation in accordance with rules and regulations prescribed by the California Apprenticeship Council. As used in this section, "contractor" includes any subcontractor under a contractor who performs any public works not excluded by subdivision (o).

(e) Prior to commencing work on a contract for public works, every contractor shall submit contract award information to an applicable apprenticeship program that can supply apprentices to the site of the public work. The information submitted shall include an estimate of journeyman hours to be performed under the contract, the number of apprentices proposed to be employed, and the approximate dates the apprentices would be employed. A copy of this information shall also be submitted to the awarding body if requested by the awarding body. Within 60 days after concluding work on the contract, each contractor and subcontractor shall submit to the awarding body, if requested, and to the apprenticeship program a verified statement of the journeyman and apprentice hours performed on the contract. The information under this subdivision shall be public. The apprenticeship programs shall retain this information for 12 months.

(f) The apprenticeship program that can supply apprentices to the area of the site of the public work shall ensure equal employment and affirmative action in apprenticeship for women and minorities.

(g) The ratio of work performed by apprentices to journeymen employed in a particular craft or trade on the public work may be no higher than the ratio stipulated in the apprenticeship standards under which the apprenticeship program operates where the contractor agrees to be bound by those standards, but, except as otherwise provided in this section, in no case shall the ratio be less than one hour of apprentice work for every five hours of journeyman work.

(h) This ratio of apprentice work to journeyman work shall apply during any day or portion of a day when any journeyman is employed at the jobsite and shall be computed on the basis of the hours worked during the day by journeymen so employed. Any work performed by a journeyman in excess of eight hours per day or 40 hours per week shall not be used to calculate the ratio. The contractor shall employ apprentices for the number of hours computed as above before the end of the contract or, in the case of a subcontractor, before the end of the subcontract. However, the contractor shall endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the jobsite. Where an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Division of Apprenticeship Standards, upon application of an apprenticeship program, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification.

(i) A contractor covered by this section that has agreed to be covered by an apprenticeship program's standards upon the issuance of the approval certificate, or that has been previously approved for an apprenticeship program in the craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the applicable apprenticeship standards, but in no event less than the 1-to-5 ratio required by subdivision (g).

(j) Upon proper showing by a contractor that he or she employs apprentices in a particular craft or trade in the state on all of his or her contracts on an annual average of not less than one hour of apprentice work for every five hours of labor performed by journeymen, the Division of Apprenticeship Standards may grant a certificate exempting the contractor from the 1-to-5 hourly ratio, as set forth in this section for that craft or trade.

(k) An apprenticeship program has the discretion to grant to a participating contractor or contractor association a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the contractor from the 1-to-5 ratio set forth

in this section when it finds that any one of the following conditions is met:

(1) Unemployment for the previous three-month period in the area exceeds an average of 15 percent.

(2) The number of apprentices in training in the area exceeds a ratio of 1 to 5.

(3) There is a showing that the apprenticeable craft or trade is replacing at least one-thirtieth of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis.

(4) Assignment of an apprentice to any work performed under a public works contract would create a condition that would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large, or the specific task to which the apprentice is to be assigned is of a nature that training cannot be provided by a journeyman.

(l) When an exemption is granted pursuant to subdivision (k) to an organization that represents contractors in a specific trade from the 1-to-5 ratio on a local or statewide basis, the member contractors will not be required to submit individual applications for approval to local joint apprenticeship committees, if they are already covered by the local apprenticeship standards.

(m) A contractor to whom a contract is awarded, who, in performing any of the work under the contract, employs journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council the same amount that the director determines is the prevailing amount of apprenticeship training contributions in the area of the public works site. A contractor may take as a credit for payments to the council any amounts paid by the contractor to an approved apprenticeship program that can supply apprentices to the site of the public works project. The contractor may add the amount of the contributions in computing his or her bid for the contract. At the end of each fiscal year the California Apprenticeship Council shall make grants to each apprenticeship program in proportion to the number of hours of training provided by the program for which the program did not receive contributions, weighted by the regular rate of contribution for the program. These grants shall be made from funds collected by the California Apprenticeship Council during the fiscal year pursuant to this subdivision from contractors that employed registered apprentices but did not contribute to an approved apprenticeship program. All these funds received during the fiscal year shall be distributed as grants.

(n) The body awarding the contract shall cause to be inserted in the contract stipulations to effectuate this section. The stipulations shall fix the responsibility of compliance with this section for all apprenticeable occupations with the prime contractor.

(o) This section does not apply to contracts of general contractors or to contracts of specialty contractors not bidding for work through a general or prime contractor when the contracts of general contractors or those specialty contractors involve less than thirty thousand dollars ($30,000) or 20 working days.

(p) All decisions of an apprenticeship program under this section are subject to Section 3081.

1777.6. It shall be unlawful for an employer or a labor union to refuse to accept otherwise qualified employees as registered apprentices on any public works, on the ground of the race, religious creed, color, national origin, ancestry, sex, or age, except as provided in Section 3077, of such employee.

1777.7. (a) A contractor or subcontractor that knowingly violates Section 1777.5 shall forfeit as a civil penalty an amount not exceeding one hundred dollars ($100) for each full calendar day of noncompliance. The amount of this penalty shall be based on consideration whether the violation was a good faith mistake due to inadvertence. A contractor or subcontractor that knowingly commits a second or subsequent violation of Section 1777.5 within a three-year period, where the noncompliance results in apprenticeship training not being provided as required by this chapter, shall forfeit as a civil penalty the sum of not more than three hundred dollars ($300) for each full calendar day of noncompliance. Notwithstanding Section 1727, upon receipt of a determination that a civil penalty has been imposed, the awarding body shall withhold the amount of the civil penalty from contract progress payments then due or to become due.

(b) (1) In the event a contractor or subcontractor is determined by the Administrator of Apprenticeship to have knowingly violated any provision of Section 1777.5, the Administrator shall deny to the contractor or subcontractor, both individually and in the name of the business entity under which the contractor or subcontractor is doing business, the right to bid on or receive any public works contract for a period of up to one year for the first violation and for a period of up to three years for a second or subsequent violation. Each period of debarment shall run from the date the determination of noncompliance by the Administrator of Apprenticeship.

(2) An affected contractor or subcontractor may obtain a review of the debarment or civil penalty by transmitting a written request to the office of the Administrator within 30 days after service of the order of debarment or civil penalty. If the Administrator receives no request for review within 30 days after service, the order of debarment or civil penalty shall become final for the period authorized.

(3) Within 20 days of the timely receipt of a request for hearing, the Administrator shall provide the contractor or subcontractor the opportunity to review any evidence the Administrator may offer at the hearing. The Administrator shall also promptly disclose to the contractor or subcontractor any nonprivileged documents obtained after the 20-day time limit.

(4) Within 90 days of the timely receipt of the a request for hearing, a hearing shall be commenced before an impartial hearing officer designated by the Administrator and possessing the qualifications of an administrative law judge pursuant to Section 11502 of the Government Code. The contractor or subcontractor shall have the burden of showing compliance with Section 1777.5. The decision to debar shall be reviewed by a hearing officer or court

only for abuse of discretion.

(5) Within 45 days of the conclusion of the hearing, the hearing officer shall issue a written decision affirming, modifying, or dismissing the debarment or civil penalty. The decision shall contain a notice of findings, findings, and an order. This decision shall be deemed the final decision of the Administrator and shall be served on all parties and the awarding body pursuant to Section 1013 of the Code of Civil Procedure by first-class mail at the last known address of the party on file with the Administrator. Within 15 days of issuance of the decision, the hearing officer may reconsider or modify the decision to correct an error, except that a clerical error may be corrected at any time.

(6) An affected contractor or subcontractor may obtain review of the final decision of the Administrator by filing a petition for a writ of mandate to the appropriate superior court pursuant to Section 1094.5 of the Code of Civil Procedure within 45 days after service of the final decision to debar or to assess a civil penalty. If no petition for a writ of mandate is filed within 45 days after service of the final decision, the order shall become final. If the petitioner claims that the findings are not supported by the evidence, abuse of discretion is established if the court determines that the findings are not supported by substantial evidence in light of the entire record.

(7) The Administrator may file a certified copy of a final order with the clerk of the superior court in any county in which the affected contractor or subcontractor has property or has or had a place of business.

(c) If a subcontractor is found to have violated Section 1777.5, the prime contractor of the project is not liable for any penalties under subdivision (a), unless the prime contractor had knowledge of the subcontractor's failure to comply with the provisions of Section 1777.5 or unless the prime contractor fails to comply with any of the following requirements:

(1) The contract executed between the contractor and the subcontractor or 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.

(2) The contractor shall continually monitor a subcontractor's use of apprentices required to be employed on the public works project pursuant to subdivision (d) of Section 1777.5, including, but not limited to, periodic review of the certified payroll of the subcontractor.

(3) Upon becoming aware of a failure of the subcontractor to employ the required number of apprentices, the contractor shall take corrective action, including, but not limited to, retaining funds due the subcontractor for work performed on the public works project until the failure is corrected.

(4) Prior to making the 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 employed the required number of apprentices on the public works project.

(d) In lieu of the penalty provided for in subdivision (a) or (b), the director may for a first-time violation and with the concurrence of the apprenticeship program, order the contractor or subcontractor to provide apprentice employment equivalent to the work hours that would have been provided for apprentices during the period of noncompliance.

(e) Any funds withheld by the awarding body pursuant to this section shall be deposited in the General Fund if the awarding body is a state entity, or in the equivalent fund of an awarding body if the awarding body is an entity other than the state.

(f) The interpretation and enforcement of Section 1777.5 and this section shall be in accordance with the rules and procedures of the California Apprenticeship Council

Division of Apprenticeship Standards

APPRENTICES ON PULIC WORKS

SUMMARY OF REQUIREMENTS

Compliance with California Labor Code Section 1777.5 requires all public works contractors and subcontractors to:

- Submit contract award information to the applicable joint apprenticeship committee, including an estimate of the journeyman hours to be performed under the contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed.

  The contract award information shall be in writing, and shall be provided to the applicable apprenticeship committee within 10 days of the date of the agreement or contract award, but in no event later than the first day in which the contractor has workers employed upon the public work. (California Code of Regulations, Title 8, Section 230.)

- Employ apprentices on the public work in a ratio to journeymen of no less than one hour of apprentice work for every five hours of labor performed by a journeyman.

- Contribute to the training fund in the amount identified in the Prevailing Wage Rate publication for journeymen and apprentices. Contractors who choose not to contribute to the local training trust fund must make their contributions to the California Apprenticeship Council, P.O. Box 420603, San Francisco, CA 94142. Training contributions to the Council are due and payable on the 15th of the month for work performed during the preceding month.

  Training contributions to the Council shall be paid by check and shall be accompanied by a completed CAC2 form, Training Fund Contributions, or the following information (California Code of Regulations, Title 8, Section 230.2 c):

  1. The name, address and telephone number of the contractor making the contribution.
  2. The contractor's license number.
  3. The name an address of the public agency that awarded the contract.
  4. The jobsite location, including the county where the work was performed.
  5. The contract or project number
  6. The time period covered by the enclosed contributions.
  7. The contribution rate and total hours worked by the apprenticeable occupation(s).

- Pay the apprentice rate on public works projects only to those apprentices who are registered, as defined in Labor Code Section 3077:

Sec. 3077. The term "apprentice" as used in this chapter, means a person at least 16 years of age who has entered into a written agreement, in this chapter called an "apprentice agreement", with an employer or program sponsor. The term of apprenticeship for each apprenticeable occupation shall be approved by the chief, and in no case shall provide for no less than 2,000 hours or reasonably continuous employment for such person for his or her participation in an approved program of training through employment and through education in related and supplemental subjects.

This form should be sent to the Apprenticeship Committee of the craft or trade in area of the site of the public work. If you have any questions as to the address of the appropriate Apprenticeship Committee, contact the nearest office of the Division of Apprenticeship Standards (DAS). Consult your telephone directory under California, State of, Industrial Relations, for the DAS office in your area. *Do not send this form to the Division of Apprenticeship Standards*.

PUBLIC WORKS

CONTRACT AWARD INFORMATION

Name of Contractor:	Contractor's State License No.:
Contractor's Mailing Address -- Number & Street, City, Zip Code:	Area Code & Telephone No.:
Name & Location of Public Works Project:	Date of Contract Award:
	Date of Expected or Actual Start of Project:
Name & Address of Public Agency Awarding Contract	Estimated Number of Journeymen Hours:

APPRENTICES		
Occupation of Apprentice	Number To Be Employed	Approximate Dates To Be Employed

Check One Of The Boxes Below

Please Note: Your election of options is not to be deemed a request for the immediate dispatch of apprentices. Contractors must make a separate request for actual dispatch.

Box 1 ☐ We will request dispatch of apprentice(s) for this job in accordance with Section 230.1 (A), California Code of Regulations. We voluntarily choose to comply with the applicable Apprenticeship Committee Standards for the duration of this job only, with regard to training apprentices and to the payment of training contributions.

Box 2 ☐ We will request dispatch of apprentice(s) for this job in accordance with Section 230.1 (A), California Code of Regulations, but do not agree to be bound by the applicable Apprenticeship Committee Standards in training the apprentices; instead, we agree to employ and train apprentice(s) in accordance with the California Apprenticeship Council regulations, including section 230.1 of the California Code of Regulations, governing employment of apprentices on public work projects.

Box 3 ☐ We are already approved to train apprentices by the applicable Apprenticeship Committee and we will employ and train under the Standards. We will request dispatch of apprentices for this job in accordance with Section 230.1 (A), California Code of Regulations.

Box 4 ☐ We will not request the dispatch of apprentice(s) since apprentices are not required on this job under the provisions of California Labor Code Section 1777.5, because:

Signature: _____

Typed Name _____

Title: _____ Date: _____

State of California -- Department of Industrial Relations
DIVISION OF APPRENTICESHIP STANDARDS

DAS 140 (REV, 2/94)

State of California
Department of Industrial
Relations
P.O. Bo 420603
San Francisco, CA 94142

Please use a separate form for each jobsite, listing the occupations for the jobsite. One check, payable to the California Apprenticeship Council, may be submitted for all jobsites and/or occupations. Training fund contributions are not accepted by the California Apprentice Council for federal public works projects, or for non-apprenticable occupations such as laborers, utility technicians, teamsters, etc.

TRAINING FUND CONTRIBUTIONS

California Apprenticeship Council

Name and Address of Contractor/Subcontractor making Contribution	Contractor's License Number
	Contract or Project Number
Name and Address of Public Agency Awarding Contract	Jobsite Location (Including County)
	Period Covered by Contribution

Classification(s) or Workers (Carpenter, Plumber, Electrician, Etc.)	Hours	Cont. Rate per Hour	Amount

Signature	Date
Title	Area Code & Telephone Number

CAC 2

CITY OF SANTA CLARITA

CONTRACTOR FRINGE BENEFIT STATEMENT

Contract Number / Name:	Contract Location:		Today's Date:
Contractor / Subcontractor Name:		Business Address:	

In order that the proper Fringe Benefit rates can be verified when checking payrolls on the above contract, the hourly rates for fringe benefits, subsistence and/or travel allowance payment made for employees on the various classes of work are tabulated below.

Classification:	Effective Date:	Subsistence or Travel Pay: $_____

FRINGE BENEFITS			
Health & Welfare	$_____	PAID TO:	Name: _____ Address: _____
Pension	$_____	PAID TO:	Name: _____ Address: _____
Vacation/ Holiday	$_____	PAID TO:	Name: _____ Address: _____
Training and/or Other	$_____	PAID TO:	Name: _____ Address: _____

Classification:	Effective Date:	Subsistence or Travel Pay: $_____

FRINGE BENEFITS			
Health & Welfare	$_____	PAID TO:	Name: _____ Address: _____
Pension	$_____	PAID TO:	Name: _____ Address: _____
Vacation/ Holiday	$_____	PAID TO:	Name: _____ Address: _____
Training And/or Other	$_____	PAID TO:	Name: _____ Address: _____

Classification:	Effective Date:	Subsistence or Travel Pay: $_____

FRINGE BENEFITS			
Health & Welfare	$_____	PAID TO:	Name: _____ Address: _____
Pension	$_____	PAID TO:	Name: _____ Address: _____

Vacation/ Holiday	$	PAID TO:	Name:	
			Address:	
Training And/or Other	$	PAID TO:	Name:	
			Address:	

Supplemental statements must be submitted during the progress of work should a change in rate of any of the classifications be made.

Submitted: Contractor / Subcontractor	By: Name / Title

City of Santa Clarita
Monthly Employment Utilization Report

Current Goals	Reporting Period	Name and Location of Contractor		Employers I.D. No.
Minority 24%	From 06-01-00	ABC Construction Company School 232 Cass Street	Martin Luther King Elementary 115 31 Street	90-2111100
		Santa Clarita, Ca 92123 92102	Santa Clarita, Ca	
Female 6.9%	To 06-30-00			

CONSTRUCTION TRADE	Classifications	Total All Employees By Trade		Black (Not of Hispanic Origin)		Hispanic		Asian or Pacific Islander		American Indian or Alaskan Native		Minority Percentage	Female Percentage	Total Number of Employees		Total Number of Minority Employees	
		M	F	M	F	M	F	M	F	M	F			M	F	M	F
Plumbers	Journey Worker	1500	200	140		60				100				8	2	3	
	Apprentice	120						120						1		1	
	Trainee		60									22%	13%		1		
Laborers	Journey Worker	3270	600		100			240		120				25	5	3	1
	Apprentice	735												5			
	Trainee	160										9%	12%	2			
Carpenters	Journey Worker	1625	240	125				100						12	2	2	
	Apprentice	200		100										2		1	
	Trainee											15%	11%				
Electricians	Journey Worker	810	120											6	1		
	Apprentice																
	Trainee	60				60						6%	12%	1		1	
Masons	Journey Worker	540												4			
	Apprentice																
	Trainee	80										0%	0%	1			
	Total Journey Workers	7745	1160	265	100	60		340		220				55	10	8	1
	Total Apprentices	1055		100				120						8		2	
	Total Trainees	300	60			60						12%	11%	3	2	1	

Grand Total	10320	465	120	460	220			78	12	

Company Official's Signature and Title C. T. Smith Controller	Telephone Number Include area code (619) 292-0000	Date Signed 6-30-00	Page 1 of 1

| Name of Contractor: | ABC Lighting Company | Business Address: | 123 Main Street Santa Clarita Ca 92222 | Contractor's License#: 00-111-2222 |
| or Subcontractor: | | | | Worker's Compensation Policy# 99-888-77 |

S = Straight Time   O = Overtime   SDI = State Disability Insurance
*Other = Any other deductions, contributions and/or payments whether or not included or required by prevailing wage determinations must be separately listed.

Hours Worked Each Day

Day & Date

Employee's Name, Address and Social Security Number	# of withholding exemptions	Work Classification	M	T	W	TH	F	S	S		Total Hours	Rate of Pay	Gross Amount Earned

Employee 1

Employee's Name, Address and Social Security Number	# of withholding exemptions	Work Classification	M	T	W	TH	F	S	S		Total Hours	Rate of Pay	Gross Amount Earned
John Smith 444 5th Avenue Santa Clarita CA 92111 444-55-6666	S-4	Fixture Cleaner	8	8						S	16	11.50	This Project: 184.00
										O			All Projects: 725.00

Net Wages Paid for Week: 168.63   Check 12345

Deductions, Contributions and Payments

Federal Tax	FICA Soc Sec	State Tax	SDI	Vacation /Holiday	Health & Welfare	Pension	Training	Fund Admin	Dues	Travel/ Subs.	Savings	Other*	Total Deductions
0	14.08	0	1.29										15.37

Employee 2

Employee's Name, Address and Social Security Number	# of withholding exemptions	Work Classification	M	T	W	TH	F	S	S		Total Hours	Rate of Pay	Gross Amount Earned
Juan Gomez 1212 Main Street Santa Clarita, CA 95555 555-66-9999	M-3	Fixture Cleaner	8	8	8		8			S	40	12.00	This Project: 480.00
										O			All Projects: 936.00

Net Wages Paid for Week: 409.58   Check 12346

Deductions, Contributions and Payments

Federal Tax	FICA Soc Sec	State Tax	SDI	Vacation /Holiday	Health & Welfare	Pension	Training	Fund Admin	Dues	Travel/ Subs.	Savings	Other*	Total Deductions
29.00	36.72	1.34	3.36										70.42

Employee 3

Employee's Name, Address and Social Security Number	# of withholding exemptions	Work Classification	M	T	W	TH	F	S	S		Total Hours	Rate of Pay	Gross Amount Earned
										S			This Project:
										O			All Projects:

Net Wages Paid for Week: Check

Deductions, Contributions and Payments

Federal Tax	FICA Soc Sec	State Tax	SDI	Vacation /Holiday	Health & Welfare	Pension	Training	Fund Admin	Dues	Travel/ Subs.	Savings	Other*	Total Deductions

I, Mary Jones , the undersigned, am Payroll Clerk with the authority to act for and on behalf of ABC Lighting , certify under
(Name -- print)   (position of business)   (name of business and/or contractor)
penalty of perjury that the records or copies thereof submitted and consisting of 1 are the originals or true, full, and correct copies of the originals
(description, no. of pages)
which depict the payroll record(s) of the actual disbursements by way of cash, check, or whatever form to the individual or individuals named.
Date: 6/30/00   Signature: .   Page 1 of 1

diR

NAME OF CONTRACTOR OR SUB CONTRACTOR	CONTRACTORS LICENSE # SPECIALTY LICENSE #	ADDRESS

PAYROLL NO.	FOR WEEK ENDING	SELF-INSURED CERTIFICATE #	PROJECT OR CONTRACT NO.
		WORKERS' COMPENSATION POLICY #	PROJECT AND LOCATION

(1) NAME, ADDRESS AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) N H E O O X . L E O D M F I P WN TI I GI T O H N - S	(3) WORK CLASSIFICATION	(4) Day M T W TH F S S — Date — Hours Worked Each Day	(5) TOTAL HOURS	(6) HOURLY RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS, CONTRIBUTIONS AND PAYMENTS							(9) NET WGS PAID FOR WEEK	CHECK NO.
			S			THIS PROJECT	ALL PROJECTS	FED TAX	FICA (SOC SEC)	STATE TAX	SDI	VAC/ HOL	HEALTH & WELF	PENSION	
			O				TRANING	FUND ADMIN	DUES	TRV/ SUBS	SAVINGS	OTHER*	TOTAL DED-UCTIONS		
			S			THIS PROJECT	ALL PROJECTS	FED TAX	FICA (SOC SEC)	STATE TAX	SDI	VAC/ HOL	HEALTH & WELF	PENSION	
			O				TRANING	FUND ADMIN	DUES	TRV/ SUBS	SAVINGS	OTHER*	TOTAL DED-UCTIONS		
			S			THIS PROJECT	ALL	FED TAX	FICA (SOC	STATE TAX	SDI	VAC/ HOL	HEALTH &	PENSION	

					PROJECTS		(SEC)				WELF		
	O					TRANI NG	FUND ADMIN	DUES	TRV/ SUBS	SAVIN GS	OTHE R*	TOTAL DED- UCTIO NS	
	S				THIS ALL PROJECT PROJECTS	FED TAX	FICA (SOC SEC)	STATE TAX	SDI	VAC/ HOL	HEALT H & WELF	PENSI ON	
	O					TRANI NG	FUND ADMIN	DUES	TRV/ SUBS	SAVIN GS	OTHE R*	TOTAL DED- UCTIO NS	

Form A 1-131 (New 2-80) S = Straight Time *OTHER - Any other deductions, contributions and/or payment whether or not included or required by prevailing CERTIFICATION must be completed
(form has been reduced to fit page) O = Overtime Wage determinations must be separately listed. Use extra sheet if necessary

SDI = State Disability Insurance

I, _____ , the undersigned, am _____ with the authority to act for and on behalf of _____ __

(Name - Print) (position with business) (name of business and/or contractor

certify under penalty of perjury that the records or copies thereof submitted and consisting of ———————————— are the originals or true, full and correct copies of the originals which depict the payroll

(description, no. of pages)

record(s) of the actual disbursements by way of cash, check, or whatever form to the individual or individuals named.

Date: ————————— Signature:——————————————————————————————

A public entity may require a more strict and/or more extensive form of certification.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # CARPENTER

DETERMINATION: SD-23-31-4-2000-1
ISSUE DATE: February 22, 2000
EXPIRATION DATE OF DETERMINATION: June 30, 2000** The rate to be paid for work performed after this date has been determined. If work will extend past this
date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Division of Labor Statistics and Research for specific rates at
(415) 703-4774.

LOCALITY: All localities within Contra Costa County

CLASSIFICATION Sunday (JOURNEYPERSON) and Holiday	Basic Hourly Rate	Employer Payments				Straight-Time		Overtime Hourly Rate	
		Health and Welfare	Pension	Vacation/ Holiday	Training	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday a 1 1/2X
ENGINEERING CONSTRUCTION									
Carpenter (Heavy and Highway work)	$25.25 56.83	2.30	1.01	2.72 b	.30	8	31.58	44.205	44.205
Light Commercial	20.40 47.13	2.30	1.01	2.72 b	.30	8	26.73	36.93	36.93
Bridge Carpenter (Highway work)	25.38 57.09	2.30	1.01	2.72 b	.30	8	31.71	44.40	44.40
Millwright	25.75 57.83	2.30	1.01	2.72 b	.30	8	32.08	44.955	44.955
Pile Driver	25.38 57.09	2.30	1.01	2.72 b	.30	8	31.71	44.40	44.40
Diver, Wet (up to 50 ft. depth)cd	55.76 117.85	2.30	1.01	2.72 b	.30	8	62.09	89.97	89.97
Diver, Standby	28.38 63.09	2.30	1.01	2.72 b	.30	8	34.71	48.90	48.90

Diver's Tender 27.38 2.30 1.01 2.72 b .30 8 33.71 47.40 47.40 61.09

_____
DETERMINATION: SD-23-31-4-2000-1A
ISSUE DATE: February 22, 2000
EXPIRATION DATE OF DETERMINATION: July 1, 2000** The rate to be paid for work performed after this date has been determined. If work will extend past this date,
the new rate must be paid and should be incorporated in contracts entered into now. Contact the Division of Labor Statistics and Research for specific rates at
(415) 703-4774.

LOCALITY: All localities within Santa Clarita County
BUILDING CONSTRUCTION

Carpenter	$23.40 52.58	2.30	1.01	2.17 b	.30	8	29.18	40.88	40.88
Light Commercial	18.72 43.22	2.30	1.01	2.17 b	.30	8	24.50	33.86	33.86

_____
DETERMINATION: SD-31-741-1-2000-1
ISSUE DATE: FEBRUARY 22, 2000
EXPIRATION DATE OF DETERMINATION: May 31, 2000* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the
Division of Labor Statistics and Research (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

LOCALITY: All localities within Santa Clarita County.

Classification (Journeyperson)	Basic Hourly Rate	Employer Payments				Straight-Time		Overtime Hourly Rate	
		Health and Welfare	Pension and	Vacation/ Holiday	Training	Hours	Total Rate	Daily Hourly 1 1/2X	Saturday a 1 1/2X Sunday and Holiday
Terrazzo Installer	$29.55 64.13	2.30	1.01	1.72 b	-	8	34.58	49.355	49.355
Terrazzo Finisher	23.05 51.13	2.30	1.01	1.72 b	-	8	28.08	39.605	39.605

# Indicates an apprenticeable craft. Rates for apprentices are available in the General Prevailing Wage Apprentice Schedules. a Saturday in the same workweek may be worked at straight-time rate for the first 8 hours if the employee was unable to complete the 40 hours during the normal workweek. b Includes supplemental dues. c Shall receive a minimum of 8 hours pay for any day or part thereof. d For specific rates over 50 ft. depth, contact the Division of Labor Statistics and Research.

DESCRIPTION:

Engineering Construction

Refers to construction which requires a Class A license and includes bridges, highways, dams and also power plants and other heavy industrial type projects.

Building Construction

Requires a Class B license and includes non-residential buildings (such as hospitals, government buildings, public schools) and commercial buildings (with the exception
of industrial buildings).

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining
agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the
prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government
Code. You may obtain the holiday provisions for the current determinations on the Internet at http://www.dir.ca.gov/DLSR/PWD. Holiday provisions for current or superseded
determinations may be obtained by contacting the Prevailing Wage Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to
each worker to execute the work. Travel and/or subsistence requirements for each craft, classification or type of worker may be obtained from the Prevailing Wage Unit at
(415) 703-4774.

CITY OF SANTA CLARITA
LABOR COMPLIANCE SITE VISITATION INTERVIEW FORM
FORMA DE INTREVISTA DEL SITIO SOBRE CONDECENCIA LABORARIA

SITE NAME:_____DATE_____
SITIO: FECHA:

PROJECT NAME:_____

CONTRACT #:_____   Interior / Exterior (circle)

CONTRACTOR:_____
CONTRANTE:

SUBCONTRACTOR:_____
SUBCONTRATANTE

Person Interviewed:_____
Nombre de Persona Entrevistada

S/S Number   _____/_____/_____
Numero de Seguro Social

Position Title:_____
Possion O Titulo del Entrevistado

Task Being Performed at Time of This Interview:_____

Clase de Labor Desenpenando al Tiempo de Entrevista

Hourly Pay Rate: $_____
Salario Horario

OBSERVATIONS:

Site Inspector:_____Telephone

Project Superintendent:_____Telephone_____

        Total number of workers observed on the visit:_____

        Type of work observed:_____

        Type of workers observed: _____

Was the worker believable?   Yes   No

Did the superintendent or foreman accompany you on the site?   Yes   No

Explain additional information received from the worker:_____

_____

Interview Conducted by:_____

SITE VISITATION LOG

SITE	VISIT DATE	PRIME CONTRACTOR	SUB CONTRACTOR	EMPLOYEE NAME	SOCIAL SECURITY #	POSITION TITLE	TASK PERFORMED AT INTERVIEW	PAY RATE	COMPLIANT / NON COMPLIANT	LABOR COMPLIANCE OFFICE COMMENTS
Hoover	9/1/99	Baker	Mills	John Doe	111-11-1111	Plumber	Repairing Plumbing	$34.19	Compliant	Certified Payroll Records check out
Hoover	9/1/00	Baker	Mills	Mark Baker	222-22-2222	Laborer	Painting	$10.40	Non	Certified Payroll does not check out with interview

CITY OF SANTA CLARITA

July 21, 2000   Certified Mail

Mr. John Doe
ACME Painting
13414 Labor Street
Los Angeles, CA 90605

Dear Mr. Doe:

The City of Santa Clarita has identified your firm as the apparent low bidder for Contract #90-225 Portable Contract Moving Services and has scheduled board approval of a contract requiring your compliance with Division 2 Part 7 of the California Labor Code. This will require the payment of prevailing wages to all workers employed on the project and the reporting of the certified weekly payroll to the LCO. The Labor Code requires, prior to the start of work, that a person qualified to certify documents for your firm attend a review meeting with the awarding body concerning the Labor Code prevailing wage laws.

The LCO is formally requesting the appearance of the certifying person for the code review, the submittal of the required weekly certified payroll records or nonperformance reports, and the monthly submittal of employment utilization reports, all identified in the contract general conditions.

This request is made pursuant to, and authorized by, California State Labor Code Section 1776(b)(2), which states, "A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations" and California Code of Regulations Section 16430 (a) (2).

The goal of the LCO is to provide the necessary information, assistance, forms and procedures to allow your project to move forward on schedule and in compliance with the State's Labor Code.

Please call the City of Santa Clarita's Labor Compliance Officer at (661) 286-4025 to set an appointment and receive the necessary forms prior to the start of your project.

Respectfully,

Harry Corder
Labor Compliance Officer

CITY OF SANTA CLARITA

July 27, 2000   Certified Mail

Jane Doe
ACME Flooring
8320 Camino Santa Fe
Santa Clarita, CA 92121

Sample
Post Award Letter

Dear Ms. Doe:

The City of Santa Clarita has awarded your firm a contract requiring your compliance with Part 7, chapter 1 of the California Labor Code. This will require the payment of prevailing wages to all workers employed on the project and the reporting of the weekly payroll to the City's Labor Compliance Officer.

The Labor Code requires, prior to the start of work, that a person qualified to sign and certify for your firm attend a review with the awarding body of the Labor Code prevailing wage laws.

The Labor Compliance Officer goal is to provide the necessary information, assistance, forms and procedures to allow your project to move forward on schedule and in compliance with the State's Labor Code.

Please call the City of Santa Clarita's Labor Compliance Officer at (661) 286-4025 to set an appointment and receive the necessary forms prior to the start of your project.

Respectfully,

Harry Corder
Labor Compliance Officer

CITY OF SANTA CLARITA

March 23, 2000   Certified Mail

John Doe
ACME Construction Co.
3170 Labor Street
Vista, CA 92083-8318

Sample
1st Request for
Certified Payrolls

Mr. Doe:

The City of Santa Clarita's Labor Compliance Officer is formally requesting copies of Certified Payroll Records and Monthly Utilization Reports for the modernization of Cubberly, Jones and Fletcher schools. We are requesting the records from the beginning of the project through project completion for your firm and all subcontractors.

This request is made pursuant to, and authorized by, California State Labor Code Section 1776 (b) (2) and Section 1776 (g) (3) and the contract general conditions requiring weekly employee payments and weekly certified payroll submittals.

Labor Code Section 1776 (b) (2) states: "A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations."

Labor Code 1776 (g) (3) states: "The contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects the contractor must comply with this section. In the event that the contractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars ($25) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated."

Please forward all weekly Certified Payroll Records and Monthly Utilization Reports and state approved forms previously provided to: City of Santa Clarita, Labor Compliance Officer, 23920 Valencia Boulevard, Suite 300, Santa Clarita, CA 91355-2196. If you have any questions, contact me at (661) 286-4025.

Respectfully,

Harry Corder
Labor Compliance Officer

Original Request: 02/08/00

This Request: 02/08/00

1.   **Monthly Utilization Forms must be provided for:**

2.   **Apprenticeship Training Agreement (similar to Form DAS 1) must be provided for:**

3.   **Apprenticeship Training Agreement (similar to Form DAS 7) must be provided for:**

4.   **Training Fund Contributions (Form CAC 2 or equivalent) must be provided for:**

5.   **Public Works Contract Award Information (Form DAS 140) with the name, address and phone number of the training program notified by all project contractors must be provided for:**

6.   **Fringe Benefits Statements must be provided for:**

7.   **Signed certified Payroll report or statement of Non-Performance with <u>original signatures</u> must be provided for:**

> contractors are responsible for submittal of their payrolls and those of their respective subcontractors as one package, which must be in the City's Labor Compliance Officer **<u>within one week of each weekly paycheck</u>**. In the event there has been no work performed during a given week, the certified payroll record shall be annotated with the words "No Work" for that week.

8.   **To determine the required hours for apprentices on this project we will need the contractor to Identify all sub-contractors who will perform work in involving less than $30,000 or who will be on the project less than 20 calendar days or both.**

9.   **Either the Public Works Payroll Reporting Form (Form A-1-131) or the City of Santa Clarita reporting form must be used.**

Sample
Missing Document List

ACME HIGH SCHOOL RE-ROOF

PRIME CONTRACTOR: **ACME ROOFING CO., INC**

Original Issue date: 00-00-0000   Latest Issue: 00-00-0000

REPORTING CONTRACTOR :**COMMERCIAL AND INDUSTRIAL ROOFING CO.,INC**								**City of Santa Clarita**		
CONTRACTOR PROVIDED INFORMATION								**comments**		
Employee Name & Social Security Number	**Work Classification**	**Week Ending**	**Rate Paid**	**Fringes Paid**	**Gross Per Hour**	**Hours Worked**	**Gross Amount Paid**	**Prevailing Wage Rate**	**Amount they should have been paid**	**Difference**
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
					$0.00		$0.00		$0.00	$0.00
								Total Contractor Difference:		**$0.00**

Total Project Difference $0.00

CITY OF SANTA CLARITA

March 1, 2000   Certified Mail

Mr. Doe
ACME Construction Co.
115 Market Place, Suite A
Los Angeles, CA 92029-1353

Sample
Certified Payroll Correction Letter

Dear Mr. Doe:

The City of Santa Clarita's Labor Compliance Officer has formally requested copies of Certified Payroll Records and Monthly Utilization Reports for Bid Project Portable Contract 82 - Phase 2. We have reviewed your submittal and require additional information.

This new request is made pursuant to, and authorized by, California State Labor Code Sections 1774, 1775, 1776, 1777.5, 1777.7, 1810, 1813 and 1815. Additionally, the contract general conditions require weekly certified payroll record submittals to the City of Santa Clarita's Labor Compliance Officer and weekly payment of employee wages.

Labor Code §1776 (b) (2) states: "A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations."

Labor Code §1776 (g) states: "The contractor shall have 10 days in which to comply subsequent to receipt of written notice specifying in what respects the contractor must comply with this section. In the event that the contractor fails to comply within the 10-day period, he or she shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit twenty-five dollars ($25) for each calendar day, or portions thereof, for each worker, until strict compliance is effectuated."

Please correct and supply the data requested in the attachments and submit on approved forms to: City of Santa Clarita, Labor Compliance Officer, 23920 Valencia Boulevard, Suite 300, Santa Clarita, CA 91355-2196.

If you have any questions, contact me at (661) 286-4025.

Respectfully,

Harry Corder
Labor Compliance Officer

Enc. (2)

CITY OF SANTA CLARITA
Report of Action for Prevailing Wage Violations

Name of Project:

Contract Number: First Advertised Date:

County Where Work Is Performed:

Date Notice of Completion Filed:

Date of Project Acceptance or Current Percent Complete:

Name and Address of Prime Contractor:

Project's Scope of Work:

Contractors in Violation of the Labor Code and their Scope of Work:

Statement of the Issues Identified to the Contractor:

Summary of the Audit Investigation:

    CPR Spread Sheets
    Labor Code Sections Violated:

Summary of Penalty Assessment Justification:

Identify Labor Code 1775 and 1813 Penalties Requested with Calculated Totals:

Is the Violation Due to Mistake, Inadvertence or is it a Willful Failure to Pay the Correct Wages:

Previous Record in Meeting Prevailing Wage Obligations:

Identify and Provide All Correspondence:_____

Identify and Provide Any Contractor Response:_____

Recommend Penalty Assessment:_____

ATTACHMENT C
COST PROPOSAL—FILL IN COMPLETELY AND RETURN WITH RFP SUBMISSION

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
PROJECT MANAGEMENT									
PROJECT MANAGER									
SENIOR TECHNICAL STAFF MEMBER									
PROJECT STAFF									
PROJECT CONFERENCE CALLS									
PROJECT MEETINGS									
MONTHLY UPDATE									
SYSTEM DELIVERABLES									
VEHICLE SUBSYSTEM									
INTERFACE WITH EXISTING VOICE RADIO SYSTEM									
MISCELLANEOUS HARDWARE*									
DATA RADIO SYSTEM									
MISCELLANEOUS HARDWARE*									
MOBILE DATA TERMINAL									
MOBILE DATA TERMINAL									
ONBOARD PROCESSOR									
WIRELESS LAN RADIO									
AUTOMATIC VEHICLE LOCATION (AVL)									
GLOBAL POSITIONING SATELLITE (GPS) RECEIVER									
DEAD RECKONING									
AUTOMATIC PASSENGER COUNTER (APC)									
AUTOMATIC VOICE ANNUNCIATION (AVA)									
INTERFACE HARDWARE									
AMBER LED VARIABLE MESSAGE SIGNS									

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
PA SYSTEM *									
ONBOARD EMERGENCY SYSTEM									
INTERFACE HARDWARE AND TRIGGERS									
HEADSIGN INTERFACE									
MISCELLANEOUS HARDWARE*									
INSTALLATION AND TEST PER BUS									
PRICING FOR ADDITIONAL VEHICLE SUBSYSTEMS									
COMPUTERS									
SERVERS (HARDWARE)									
BACKUP SERVER (OPTIONAL)									
LAN HARDWARE									
WAN HARDWARE									
MAIN TRUNKING CONTROLLER*									
CENTRAL ELECTRONICS									
CONSOLE FURNITURE*									
GPS REFERENCE STATION									
RUGGEDIZED LAPTOP PERSONAL COMPUTERS WITH LICENSED SOFTWARE	4								
TELEPHONE SWITCH*									
UNINTERRUPTIBLE POWER SUPPLIES									
TELEPHONE AND RADIO RECORDING DEVICE									
INSTALLATION									
TEST									
DISPATCH CENTER									
DISPATCH WORKSTATIONS	3								
MONITORING WORKSTATION	1								
3rd PARTY LICENSES FOR ADDITIONAL STATIONS									
LOGGING RECORDER									

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
CONSOLE FURNITURE*									
WIRELESS HEADSETS	6								
INSTALLATION									
TEST									
FIXED VOICE RADIO SUBSYSTEM									
INTERFACE WITH EXISTING VOICE RADIO SYSTEM									
INTERFACE HARDWARE									
NETWORK HARDWARE (LIST)									
FIXED DATA RADIO SYSTEM									
OAT MOUNTAIN SITE*									
DATA BASE STATION									
DATA CONTROLLER									
ANTENNA(S) AND FEED LINE									
LEASED DATA LINE									
INSTALLATION HARDWARE									
FACTORY ACCEPTANCE TEST									
FIELD INSTALLATION AND TEST									
REMOTE MONITORING									
NETWORK HARDWARE									
YARD SUBSYSTEM									
SERVER/WORKSTATION									
TIN LAN INTERFACE									
WIRELESS LAN ACCESS POINT(S)									
CONSOLE FURNITURE*									
CABLING									
NETWORK HARDWARE									
INSTALLATION									

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
TEST									
ROAD SUPERVISOR VEHICLE SUBSYSTEMS									
MOBILE VOICE RADIO*									
PORTABLE RADIO									
MOBILE DATA RADIO									
COMMERCIAL DATA SERVICE*									
MOBILE DATA TERMINAL (MDT)									
ONBOARD PROCESSOR									
MOBILE DATA COMPUTER (MDC)									
GPS RECEIVER									
POWER SUPPLY									
MOUNTING HARDWARE									
INSTALLATION AND TEST									
PRICING FOR ADDITIONAL ROAD SUPERVISOR SUBSYSTEMS									
TRAVELER INFORMATION SYSTEM									
TERMINAL DISPLAY SIGNS									
WAYSIDE DISPLAY SIGNS									
SOLAR POWER SYSTEM									
COMMUNICATION HARDWARE									
TIN SOFTWARE AND DATABASE									
OPERATING SYSTEM LICENSES									
COMMERCIAL SW LICENSES									
BASE SW LICENSE									
SOFTWARE REQUIREMENTS SPEC.									
SOFTWARE DESIGN DESCRIPTION									
SOFTWARE QUALITY ASSURANCE									
GUI DEVELOPMENT									

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
DATABASE DEVELOPMENT									
EXCEL SCHEDULE IMPORT									
INTERFACE TO OTHER SOFTWARE DEVELOPMENT									
CAD DEVELOPMENT									
REPORT DEVELOPMENT									
GIS DEVELOPMENT									
AVA DEVELOPMENT									
AVA AUDIO RECORDING DEVELOPMENT									
DISPATCHER MODIFIABLE BUS ROUTE, PATTERN AND SCHEDULE DATA FEATURE									
INTERFACE TO UFS									
INTERFACE TO RIITS									
FIXED ROUTE SCHEDULING SOFTWARE									
INTERFACE TO SCHEDULING SOFTWARE									
REPLACEMENT FOR ROUTEMATCH*									
SOFTWARE*									
MISCELLANEOUS HARDWARE*									
DATA TRANSMISSION SYSTEM*									
MDT FOR PARATRANSIT FLEET*									
GLOBAL POSITIONING SATELLITE (GPS) RECEIVER*									
DEAD RECKONING*									
WIRELESS LAN*									
LICENSE FEES*									
MISCELLANEOUS EXPENSES (SPECIFY)*									
DIAGNOSTIC AND TEST EQUIPMENT									
MOBILE TEST SETS									
FIXED RADIO PROGRAMMING LAPTOP									

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
MOBILE PROGRAMMING SETS									
FIXED RADIO PROGRAMMING SETS									
MANUALS									
VEHICLE OPERATORS									
DISPATCHERS									
HARDWARE SUPPORT									
NON REVENUE USER MANUAL									
SYSTEM ADMINISTRATION									
OPERATIONS PLANNERS AND SCHEDULERS									
TRAINING AND TRAINING TOOLS									
REVENUE VEHICLE OPERATORS									
SUPERVISORS AND DISPATCHERS									
HARDWARE SUPPORT									
BUS OPERATOR/SUPERVISOR TRAINERS									
DISPATCHER AND SUPERVISOR TRAINERS									
SYSTEM ADMINISTRATION									
COMPUTER SOFTWARE MAINTENANCE STAFF									
OPERATIONS PLANNERS AND SCHEDULERS									
BUS IN A BOX									
DESIGN SUBMITTALS									
PRELIMINARY DESIGN REVIEW									
FINAL DESIGN REVIEW									
OTHER DESIGN SUBMITTALS									
AS-BUILT DOCUMENTATION									
MEETINGS AND CONFERENCE CALLS									
TESTS									
TEST PLANS/PROCEDURES AND TEST REPORTS									

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
EQUIPMENT ELEMENTS AND QA									
FACTORY TEST									
FIELD PERFORMANCE TEST									
COMMUNICATION COVERAGE TEST									
MINI FLEET ARTICLE									
AVAILABILITY TEST									
PROJECT CLOSE-OUT									
INITIAL SURVEY									
CORRECTIVE WORK									
FINAL SURVEY									
SPARES									
VEHICLE SUBSYSTEMS									
TESTING									
ROAD SUPERVISORS EQUIPMENT SETS									
TESTING									
FIXED RADIO EQUIPMENT									
MAJOR COMPONENT SPARES (PROVIDE LIST)									
COMPUTER EQUIPMENT									
HOST PROCESSOR HARDWARE									
CONSOLE PROCESSOR									
CONSOLE MONITOR									
1 SPARE LAN HUB									
1O PERCENT LAN NETWORK CARDS									
ONE BRIDGE, ROUTER, SWITCH, AND OTHER HARDWARE OF EACH TYPE									
DISPATCH									
CONSOLE PROCESSORS									
DISPLAYS									

Description	Qty.	Unit	UNIT PRICE			EXTENDED PRICE			Price
			Labor Rate	Matl. Unit	Equip. Unit	Labor	Material	Equip.	
BUS YARD EQUIPMENT									
WIRELESS LAN ACCESS POINT									
TEST EQUIPMENT									
MOBILE TEST SETS									
FIXED RADIO PROGRAMMING SETS TO INCLUDE LAPTOP PERSONAL COMPUTERS WITH SOFTWARE									
SYSTEM SUPPORT									
FIRST INCREMENTAL ACCEPTANCE TO TOTAL SYSTEM ACCEPTANCE									
ONE YEAR POST SYSTEM ACCEPTANCE HARDWARE AND SOFTWARE WARRANTY									
ADDITIONAL SECOND YEAR HARDWARE AND SOFTWARE WARRANTY									
ADDITIONAL THIRD YEAR HARDWARE AND SOFTWARE WARRANTY									
ADDITIONAL FOURTH YEAR HARDWARE AND SOFTWARE WARRANTY									
SUBTOTAL									
TAX - Estimate Only									
Performance Bond									
TOTAL WITH TAX and Bond									
OPTIONAL INTERFACES									
MOBILE VIEW INTERFACE									
RTA MAINTENANCE SYSTEM INTERFACE									
TRAFFIC SIGNALIZATION SYSTEM									
TOTAL WITH TAX, BOND AND OPTIONAL INTERFACES									

**ADDENDUM #1
For
City of Santa Clarita Request for Proposal
PS-07-08-08**

Transportation Development Plan Update
September 17, 2007

This addendum must be included with the proposal response. If you have already submitted a proposal you must fax an acknowledgement of this addendum to Purchasing. If you wish to resubmit, you must also contact Purchasing by fax and request the proposal be returned. The fax number is (661) 286-4186.

The City has updated information regarding the submission of the RFP. The City requires one unbound original and five (5) copies of the RFP be submitted before 11:00 AM on Thursday, November 1, 2007.

The City used Eiger TechSystems in Santa Monica to help develop the specifications for this RFP. Proposers may not use Eiger TechSystems in any way in the preparation of the Transit Information Network RFP.

The selected contractor is responsible for any permits that may be required in the scope of work.
The contractor must obtain and pay for any required permits.

1.   Can we get copies of the plans for the TMF facility?

A.   Applicable plans for the TMF facility were available on CD at the pre-bid conference. You may contact Adrian Aguilar at 661 295-6305 to arrange to pick a CD up if you did not attend the pre-bid conference.

_____   _____

Contractor's representative   Date

_____

Company Name

ADDENDUM #2
For
City of Santa Clarita Request for Proposal
PS-07-08-08

TRANSIT INFORMATION NETWORK
September 20, 2007

This addendum must be included with the proposal response. If you have already submitted a proposal you must fax an acknowledgement of this addendum to Purchasing. If you wish to resubmit, you must also contact Purchasing by fax and request the proposal be returned. The fax number is (661) 286-4186.

1.   Will a list of interested vendors be distributed?

A.   Attached is a list of vendors that attended the pre-bid conference.

2.   Will all form required to be completed by vendors be made available in Word format to aid in completion?

A.   No, the form will not be made available in Word format. However, should you choose to use the RFP as a template, using Adobe Acrobat Reader you can copy verbiage using Tools, Basic, Select.

3.   Will items purchased under this proposal be subject to California State Sales and/or Use Tax? If so what will be taxable and at what tax rate?

A.   Yes, sales tax applies. Our tax rate is 8.25%.

4.   Will performance and payment bonding be required for this project?

A.   See Section A, Proposal Instructions, number 39.

5.   Section 2.5.2 page 22 - AVL Map and Overlays
Is it possible to get a sample of the City's current GIS source data in the ESRI shapefile format that is to be provided by the City?

A.   You may request this file via email at aaguilar@santa-clarita.com *or* rmichler@santa-clarita.com *and the file will be emailed back to you.*

6.   Section 2.11.5 page 49 - Interface with Interface with Interactive Voice Response (IVR) software
Please provide a week's worth of call volume statistics for the Paratransit and Fixed call centers.
Please provide an estimate of the maximum number of simultaneous calls to Paratransit customers prior to vehicle arrival that the system will need to be able to perform.

A.   The City receives an average of 5,700 calls per week in to the call center. This total includes reservation requests, service information calls, vehicle status/location inquiries, and customer complaints.

Based on the current and projected paratransit service levels, it is our estimate that any proposed IVR system should support four simultaneous outgoing calls. The system should also allow for easy expansion of this capability (through software updates and/or the addition of cost effective hardware) without having to replace the system should the need arise in the future.

7.   Section 4.1.1 Attachment A page 61
What functionality does Santa Clarita envision by requesting that "the system should be fully integrated with all other features requested in this RFP including the existing Paratransit scheduling and dispatching (RouteMatch) system? We are specifically interested in the RouteMatch integration.

A.   The City envisions a seamless system that sends and pulls information from existing and requested systems. For example, the driver should be able to use a single log-in to activate the fareboxes, requested AVL system and passenger counters. Another example of the desired integration is the ability for the scheduling software to "pass through" route and schedule information to the AVL system, vehicle head signs and passenger counters. These are just two examples of the desired integration and do not represent the full functionality requested in the RFP.

Specific to the RouteMatch system, the integration that is envisioned include the ability to pull vehicle location (AVL) data from the Route Match system and show that information within the proposed mapping system for the fixed-route and commuter systems. Because the City's paratransit fleet is equipped with Mentor Ranger mobile data computers, this data could be collected through/from the RM Gate server, which serves as the "clearing house" for AVL data. Additionally, this integration should support seamless communication (data, data messaging and voice) between the fixed-route dispatchers and the paratransit fleet. Section 2.11.2 (Attachment A, page A-43) provides further details on the requested RouteMatch interface functionality.

8.   Section 4.1.3, Attachment A page 62

What is meant / desired by the wording "ability to geocode attribute information"

A.   As routes and stop locations are modified, the City will need a way to enter geocoding data for new stop locations. The proposed system should have the ability to generate and save geocode data (coordinates for new stop locations) using the systems mapping functions/tools. This is in addition to the ability to manually enter coordinate data for any new or existing stop location.

9.   Section 4.1.4, Attachment A page 63

Please explain to what extent the City is looking for the ability to provide deviated fixed route scheduling.

A.   The City's Short Range Transit Plan (SRTP) calls for the introduction of feeder service linking residential communities with mainline trunk service over the next three to five years. It is envisioned that this service would be provided through the "deviation" of either existing or new fixed-route lines using smaller less obtrusive transit vehicles. While the SRTP recommends the use of fixed-route lines with the ability to deviate from the primary route to serve area residents, the full extent or level of deviated service to be provided is not yet known.

10.   Section 4.1.8, Attachment A page 64

What is meant by the requirement: "Allows for system defined holidays by transit facility and route"?

A.   During certain holidays, the City operates reduced levels of service. For example, some routes may run on a Sunday schedule while other routes may not operate at all. The proposed system should allow the City to define "holidays" and the corresponding level of service on both a system wide and route by route basis.

11.　　　Section 5.2 Attachment A page 68

The City states that it may provide the Contractor with servers configured to the City's specifications ……

Does this mean that the City will be responsible for providing all required hardware and O/S for TIN?

A.　　　*Bidder will itemize costs for each proposed servers and workstations and their respective operating systems. Depending on the costs the City MAY (not WILL) elect to provide the required comparable servers, workstations, and/or operating systems for this project. If the City elects to provide this any or all required servers and workstations, all City provided servers will be equipped with Windows Server 2003 or later. All City provided workstations shall be equipped with Window XP professional or later.   The selected contractor will be responsible for providing any and all additional software necessary to operate the TIN system as designed.*

12.　　　The scoring system on page 34 only provides 10 out of 50 points for passenger information system which is our firm's strong suit. As such, can we quote on just a selected portion of the RFP?

A.　　　*No, bidders may not quote on just a portion of the RFP.   However, we would encourage you to identify and partner with interested firms who could compliment your strengths and provide a effective solution to the City needs.*

_____　　　　　　_____

　　　　　Contractor's representative　　　　　　　　　　　　　Date

_____

　　　　　Company Name

ADDENDUM #3
For
City of Santa Clarita Request for Proposal
PS-07-08-08

TRANSIT INFORMATION NETWORK
October 11, 2007

This addendum must be included with the proposal response. If you have already submitted a proposal you must fax an acknowledgement of this addendum to Purchasing. If you wish to resubmit, you must also contact Purchasing by fax and request the proposal be returned. The fax number is (661) 286-4186.

1.   Page 6, Proposal Instructions 15. Bonds, states "at least 10% of the total value of the bid to guarantee that proposers will enter into contract to furnish goods at prices stated." Page 13, 39. Bonding Requirements, states "Bid Bond Requirements (Construction)." **Can you clarify if the 10% Bid Bond is for Construction only or if it should be submitted with all bids?**

A.   The 10% Bid Bond is required for the entire bid total.

2.   Page 14, Performance and Payment Bonding Requirements (Non-Construction), states, "The Contractor may be required to obtain performance and payment bonds when necessary to protect the City of Santa Clarita's interest." **Can you clarify if both bonds will be required after contract award?**

A.   Performance and Payment Bonds will be required from the vendor awarded the contract.

3.   Page 15, Warranty of the Work and Maintenance Bonds, states "As additional security for these guarantees, the Contractor shall, prior to the release of Final Payment, furnish separate Maintenance (or Guarantee) Bonds in form acceptable to the City of Santa Clarita written by the same corporate surety that provides the Performance Bond and Labor and Material Payment Bond for this Contract. These bonds shall secure the Contractor's obligation to replace or repair defective materials and faulty workmanship for minimum period of one (1) year after Final Payment and shall be written in an amount equal to ONE HUNDRED PERCENT (100%) of the CONTRACT SUM, as adjusted (if at all). **Can you clarify that only the maintenance bond will be required prior to the release of final payment?**

A.   Yes, the maintenance bond will be required prior to the release of final payment.

_____   _____

        Contractor's representative   Date

_____

        Company Name

ADDENDUM #4
For
City of Santa Clarita Request for Proposal
PS-07-08-08
TRANSIT INFORMATION NETWORK
October 23, 2007

This addendum must be included with the proposal response. If you have already submitted a proposal you must fax an acknowledgement of this addendum to Purchasing. If you wish to resubmit, you must also contact Purchasing by fax and request the proposal be returned. The fax number is (661) 286-4186.

The City of Santa Clarita is extending the due date for the Transit Information Network RFP until **Thursday, November 29, 2007 before 11:00 AM.**   The deadline for questions is extended until **Thursday, October 25, 2007 until 4:00 PM Pacific time.**

The City is currently working on numerous questions and expects to send out another addendum
the first part of next week.

_____   _____
Contractor's representative   Date

_____
Company Name